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CATALOGUE  
OF THE  
BIRDS  
IN THE  
BRITISH MUSEUM.

VOLUME IX.



LONDON:  
PRINTED BY ORDER OF THE TRUSTEES.

1884.



CATALOGUE  
OF THE  
P A S S E R I F O R M E S,  
OR  
PERCHING BIRDS,  
IN THE  
COLLECTION  
OF THE  
BRITISH MUSEUM.

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CINNYRIMORPHÆ:  
CONTAINING THE FAMILIES  
NECTARINIIDÆ AND MELIPHAGIDÆ  
(SUN-BIRDS AND HONEY-EATERS).

BY  
HANS GADOW, M.A., PH.D.

LONDON:  
PRINTED BY ORDER OF THE TRUSTEES.  
1884.

PRINTED BY TAYLOR AND FRANCIS,  
RED LION COURT, FLEET STREET.



## P R E F A C E.

THE Ninth Volume of the 'Catalogue of Birds in the British Museum' contains an account of all the species of *Cinnyrimorphæ* known at present, and was prepared by the author of the previous volume, Dr. H. Gadow. The total number of species described amounts to 355, of which 291 are in the British Museum; they are represented by 2450 specimens.

Of the principal donors I have to mention B. H. Hodgson, Esq., Capt. Stackhouse Pinwill, F. D. Godman, Esq., O. Salvin, Esq., Sir John Kirk, W. E. and C. G. Oates, Esqrs., H. Seebohm, Esq., A. O. Hume, Esq., W. Davidson, Esq., Capt. Wardlaw Ramsay, and Capt. Trevelyan.

The proof-sheets were again revised by Mr. Sharpe, but submitted to the author before sending them to the press.

ALBERT GÜNTHER,

*Keeper of the Department of Zoology.*

British Museum,  
February 11, 1884.



## INTRODUCTION.

THE Cinnyrimorphæ seem to form a tolerably natural group, as far as the *Nectariniidæ* and *Meliphagidæ* proper are concerned. With regard to the *Zosteropinæ*, their degree of relationship with the *Meliphagidæ* is doubtful, and they might, perhaps, with more propriety be ranged with the *Dicaidæ*, which, in all probability, have very little to do with the Cinnyrimorphæ *sensu strictiori*.

The numerous genera of the Meliphagidæ are closely allied to each other; but there is such a divergence in the so-called leading taxonomic characters, that it seems impossible to give such a diagnosis as would admit all the genera. Many species, moreover, exhibit greater differences *inter se* than do some of the universally admitted genera; and yet, in my opinion, there can be no doubt as to what genera these species belong.

The extraordinary development of the "metallic" colours in the *Nectariniidæ* rendered it desirable to invent some standard according to which these changing colours should be described. This has been done by me in a paper, "On the Colour of Feathers as affected by their Structure," published in the 'Proceedings of the Zoological Society' for 1882 (pp. 409-421).

The structure of the tongue, which is also one of the best characteristics of the whole group, has likewise been described by me in a paper, "On the Suctorial Apparatus of the Tenuirostres," published in the 'Proceedings' for 1883 (pp. 62-69).

I feel greatly indebted to Captain Shelley for having given me free access to his collection of Sun-birds on every occasion, whilst his admirable and nearly exhaustive 'Monograph of the Nectariniidæ'

has rendered the re-writing of this group much less laborious than it would otherwise have been. I do not agree with him on all points; but where we are at variance it is generally in connection with closely allied forms, which I have endeavoured, as much as possible, to treat as geographical races.

The genus *Zosterops* has been worked out entirely by Mr. R. Bowdler Sharpo, and I am only responsible for the diagnoses of the subfamily and its genera. Once more my thanks are due to the last-named gentleman for many acts of courtesy, and for numerous additions and corrections which became necessary since my departure from London.

H. GADOW.

Cambridge,  
February 1884.

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CATALOGUE  
OF  
BIRDS.

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Order II. PASSERIFORMES

(Cat. B. vol. iii. p. 1).

Suborder I. PASSERES

(Cat. B. vol. iii. p. 6).

Group IV. CINNYRIMORPHÆ

(Cat. B. vol. iii. p. 3).

Family NECTARINIIDÆ.\*

Bill always much pointed, often elongated and curved. Tongue long, protractile, ending in a tube anteriorly bifid. Nostrils rounded, not hidden by bristles or feathers, but protected by a coriaceous membrane. Rictal and nasal bristles completely wanting. First primary always present, varying in size; tip of wing formed by 3rd to 5th primaries. Tarsus anteriorly covered with transverse scales; hallux and claws short. Principal ground-colours yellow and green, frequently with the addition of other ornamental and metallic colours, which as a rule, like the pectoral tufts, are characteristic of the male. Feathers of crown always short, never forming a crest. Generally two white eggs are laid in a woven pendant nest. Non-migratory.

*Range.* Ethiopian, Indian, and Australian Regions.

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\* With reference to the description of the metallic colours in the Sun-birds, see my paper in the 'Proceedings of the Zoological Society' for 1882, p. 409: but I observe here, that "position A" means that the eye is placed between the bird and the light, the eye and the light almost in a level with the planes to be examined; "position B," the bird is placed vertically to the light, the eye being still between the light and the bird; "position C," the bird is held in nearly the same level with, but between, the eye and the light.

*Key to the Genera.*

- a. Tail square, but the central pair of feathers projecting beyond the rest. Male always metallic . . . . . 2. NECTARINIA, p. 3.
- b. Whole tail square.
- a'. Bill much curved and long.
- a''. Male with wattles on the sides of the head; tail short, only half the length of the wing . . . . . 1. NEODREPANIS, p. 2.
- b''. Male without wattles.
- a'''. Tail not half covered by wings; male mostly with metallic colours . . . . . 6. CINNYRIS, p. 31.
- b'''. Tail more than half covered by wings; male without any metallic colours . . . . . 7. ARACHNOTHERA, p. 100.
- b'. Bill slightly curved, shorter than the head; keel of lower mandible straight; male always with metallic colours . . . . . 8. ANTHOTHREPTES, p. 112.
- c. Tail graduated; central pair of feathers the longest; bill longer than head.
- c'. Rump and lower back bright yellow, concealed by the long and very fluffy feathers of the sides of the back . . 5. ÆTHOPYGA, p. 13.
- d'. Rump and lower back not yellow; no fluffy feathers.
- c''. Lower back and breast metallic . . 4. CHALCOSTETHA, p. 12.
- d''. Lower back olive, non-metallic; breast orange-yellow . . . . . 3. ANTHOBAPHES, p. 10.

**1. NEODREPANIS.**

Neodrepanis, *Sharpe, Proc. Zool. Soc. 1875, p. 76* . . . . . Type.  
N. *coruscans*.

Bill much longer than head and strongly curved and pointed; culmen rounded. Nostrils basal, longitudinal, with a small operculum; no rictal or nasal bristles. First primary extremely long and peculiarly shaped, rather shorter than the second, which is equal to the seventh in length; tip of wing, which is short, formed by 3rd to 5th primaries. Tail soft, slightly rounded, and very short, scarcely half the length of the wing. Tarsus anteriorly covered with transverse scales; claws short. Male with metallic colours and large bare wattles on either side of the head.

*Range.* Madagascar.

**1. Neodrepanis coruscans.**

Neodrepanis *coruscans*, *Sharpe, P. Z. S. 1875, p. 76*; *Shelley, Ibis, 1875, p. 380*; *id. Monogr. Nect. p. 1, pl. 1*; *Milne-Edwards & Grand. Hist. Nat. Madag., Ois. pls. cviii., cviii. a (1879).*

*Adult male.* All the upper parts dark greenish blue, deep blue

in position C; wings and tail black, externally edged with the metallic blue of the back; the large bare eye-wattles greyish blue; nasal and loreal region black; all the underparts vivid yellow, with the exception of a few black under wing-coverts near the edge of the wing; inner web of quill without paler edges.

*Female.* Without wattles around the eye; all the upper parts uniform olive-green, with a faint greenish metallic gloss; wings and tail dark brown, externally broadly edged with olive-green; underparts vivid yellow, some of the feathers of the breast washed with brownish or grey; inner web of quills with buff edges.

♂. Culmen 1 inch, wing 1.90, tail 0.90, tarsus 0.55.

♀. " 1 " " 1.70, " 0.85, " 0.55.

*Hab.* Madagascar.

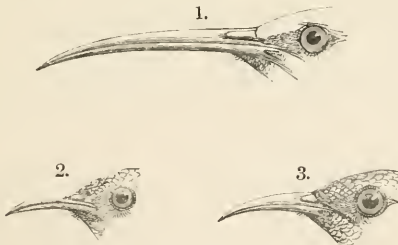
- |                         |                                     |   |
|-------------------------|-------------------------------------|---|
| a. ♀ ad.; b. ♂ imm. sk. | East of Antananarivo,<br>July 1881. | Rev. W. Deans Cowan<br>[C.].                |
| c. ♂ imm. sk.           | Madagascar.                         | Mr. A. Crossley [C.].<br>(Type of species.) |

## 2. NECTARINIA.

	Type.
Nectarinia, <i>Ill. Prodr.</i> p. 210 (1811) .....	N. famosa.
Panæola, <i>Cab. Mus. Hein.</i> i. p. 101 (1850) .....	N. pulchella.
Hedydipna, <i>Cab. l. c. i.</i> p. 101 (1850) .....	N. metallica.
Platydyipna, <i>Cab. l. c. i.</i> p. 101 (1850) .....	N. platyura.

Bill, with one exception, much longer than the rest of the head and much curved. Nostrils longitudinal, operculated, exposed; no bristles. Wings rather pointed, the second quill being long; tip of wing formed by 3rd, 4th, and 5th primaries; first primary very small. Tail square, but (in the male) the central pair of its feathers project out far beyond the others. Tarsus anteriorly covered with transverse scales. Hallux short; claws much curved, sharp, but short. Male richly metallic coloured, sometimes with yellow pectoral tufts; some species with fluffy back-feathers. Female very plain.

*Range.* Africa.



1. Bill of *N. famosa*.

2. Bill of *N. metallica*.

3. Bill of *N. platyura*.

## Key to the Species.

- a. Breast and abdomen black or metallic.
- a'. No pectoral tufts ..... } *tacazze*, p. 4.
- b'. Bright yellow pectoral tufts. } *bocagei*, p. 4.
- a". All the underparts metallic green.
- a'''. Dark green above ..... *famosa*, p. 5.
- b'''. Coppery above ..... *cupreonitens*, p. 6.
- b''. Chest scarlet ..... *pulchella*, p. 7.
- b. Breast and abdomen yellow.
- c'. Lower back and upper tail-coverts metallic blue.
- c'''. Mantle dark metallic green ..... *metallica*, p. 8.
- d'''. Mantle coppery bronze ..... *platyura*, p. 10.

1. *Nectarinia tacazze*.

- Certhia tacazze*, *Stanley in Salt's Trav. Abyss., App.* p. 58 (1814).  
 Splendid Creeper, *Lath. Gen. Hist.* iv. p. 226, no. 15 (1822).  
*Cinnyris tacazze*, *Rüpp. Neue Wörb.* p. 89, pl. 31. fig. 3 (1835);  
*Lefebvre, Voy. Abyss., Zool.* p. 88 (1845-50).  
*Nectarinia tacazze*, *Rüpp. Syst. Uebers.* p. 28, no. 108 (1845); *Bp. C. A.* i. p. 405, no. 7 (1850); *Heugl. Syst. Uebers. N.O.-Afr.* p. 20, n. 52 (1856); *Gray, Hand-l. B.* i. p. 108, no. 1329; *Blanford, Geol. & Zool. Abyss.* p. 352, no. 111 (1870); *Shelley, Monogr. Nect.* p. 19, pl. 7.  
*Aidemonia tacazze*, *Reichb. Handb. Scansoriæ*, p. 284, pl. 3871. fig. 3896 (1854).  
*Æthopyga tacazze*, *Horsf. & Moore, Cat. B. E.I. Co. Mus.* ii. p. 735, no. 1073 (1856-58).  
*Nectarinia tacaziena*, *Heugl. Orn. N.O.-Afr.* i. p. 222 (1871); *Sharpe, Cat. Afr. B.* p. 37, no. 343 (1871).  
*Nectarinia tacazziana*, *Finsch, Tr. Z. S.* vii. p. 227 (1872).  
*Aidemonia tacazziana*, *Antinori & Salvad. Ann. Mus. Civic. Genov.* iv. p. 89 (1873).

*South-western Race (N. bocagei).*

- Nectarinia tacazze*, *Bocage, Journ. Lisb.* 1878, p. 2 (*nec Rüpp.*).  
*Nectarinia bocagei*, *Shelley, Monogr. Nect.* p. 21, pl. 6. fig. 2.

*Adult male.* Whole plumage black; all the upper parts and the neck with a strong metallic gloss; in position B these parts are coppery lilac or purple, changing into brilliant purple-blue on the lower back; in position C the reflecting parts are dark green. Culmen 1.2-1.25 inch, wing 3.1-3.3, tail 2.5 [4.4\*]-2.9 [4.8], tarsus 0.74-0.75.

*Female.* Above dull olive-grey; quills brown, inner web with pale edges; tail-feathers black, the outer pairs with large whitish tips and margins: a pale superciliary line; all the underparts dull yellow or pale yellowish buff, palest on the throat and under tail-coverts. Wing 2.8 inches.

*Hab.* Abyssinia and Bogos Land.

*South-western Race (N. bocagei).*—Specimens from Angola resemble *N. tacazze* in size and coloration, "but may be readily distinguished from that bird by the bluish-green colouring of the back, upper tail-coverts, and throat" (*Shelley*).

\* The figures between brackets refer to the central pair of tail-feathers.

a, b. ♂ ♀ ad. st.	Abyssinia.	Purchased.
c. ♂ ad. sk.	Ankober, May ( <i>Harris</i> ).	India Museum.
d. ♀ ad. sk.	Abyssinia ( <i>Harris</i> ).	India Museum.
e. ♂ ad. sk.	Abyssinia.	R. B. Sharpe, Esq.
f. ♂ ad. sk.	Wandash Pass, Abyssinia, 10,000ft., Apr. 25, 1868.	W. T. Blanford, Esq. [C.].
g. ♂ imm. sk.	Senafé, Tigré, 7500 feet, March 5, 1868.	W. T. Blanford, Esq. [C.].
h. ♂ ad. sk.	Senafé, Tigré, 8000 feet, May 1868.	W. T. Blanford, Esq. [C.].
i. ♀ ad. sk.	Adigrat, Tigré, 8000 feet, April 3, 1868.	W. T. Blanford, Esq. [C.].

2. *Nectarinia famosa*.

- Certhia famosa*, *Linn. S. N.* i. p. 187, no. 20 (1766); *P. L. S. Müll. S. N.* ii. p. 259, no. 20 (1773); *Gm. S. N.* i. p. 481, no. 20 (1788); *Lath. Ind. Orn.* i. p. 288, no. 24 (1790); *Shaw, Nat. Misc.* i. pl. 19 (1790); *id. Gen. Zool.* viii. p. 212, pl. 31 (1811).  
Grimpereau à longue queue du Cap de Bonne Espérance, *Daubent. Pl. Enl.* 83. fig. 1 (1773-86).  
*Trochilus pella* (*pt., Africa*), *P. L. S. Müll. S. N.* ii. p. 264, no. 2, pl. 8. fig. 9 (1773).  
*Trochilus capensis*, *P. L. S. Müll. S. N. Suppl.* p. 100, no. 1 (1776).  
Soui-manga vert à longue queue, *Buff. Hist. Nat. Ois.* v. p. 521 (1778).  
Famous Creeper, *Lath. Gen. Syn. B.* ii. p. 720, no. 21 (1781); *id. Gen. Syn. Suppl.* p. 128, no. 21 (1787); *id. Gen. Hist. B.* iv. p. 214, no. 4, et vars. A et B (1822).  
Snuff-coloured Creeper, *Lath. Gen. Syn. Suppl.* p. 129, no. 50 (1787); *id. Gen. Hist. B.* iv. p. 218, no. 6 (1822).  
*Certhia tabacina*, *Lath. Ind. Orn.* i. p. 289, no. 26 (1790); *Shaw, Gen. Zool.* viii. p. 214 (1811).  
Jeune Soui-manga, *Aud. et Vieill. Ois. Dor.* ii. p. 48, pl. 26 bis (1802).  
Le grand Soui-manga à longue queue, *Aud. et Vieill. tom. cit.* pp. 59, 60, pls. 37, 38.  
Soui-manga couleur de tabac, *Aud. et Vieill. tom. cit.* p. 67 (*ex Lath.*).  
Le Sucrier malachite, *Lerail. Ois. d'Afr.* vi. p. 143, pls. 289, 290 (1808); *Sunder. Krit. Framst., Levaill.* p. 46 (1857).  
*Nectarinia famosa*, *Ill. Prod.* p. 210 (1811); *Burchell, Trav. S. Afr.* i. p. 245 (1822); *Jard. Monogr. Sun-birds*, pp. 204, 259, pl. 17 (1843); *Rüpp. Syst. Ucbers.* p. 28 (1845); *Bp. C. A.* i. p. 404, no. 2 (1850); *Cab. Mus. Hein.* i. p. 102, no. 561 (1850); *Reichb. Handb. Scansorie*, p. 296, no. 695, pl. 581. figs. 3949-51 (1854); *Grill, Zool. Anteckn.* pp. 10, 38 (1858); *Kirk, Ibis*, 1864, p. 320; *Pelzeln, Reise Novara, Vög.* p. 51 (1865); *Selat. P. Z. S.* 1866, p. 22; *Layard, B. S. Afr.* p. 77, no. 127 (1867); *Finsch et Hartl. Vög. Ost-Afr.* p. 212 (1870); *Ayres, Ibis*, 1871, p. 150; *Sharpe, Cat. Afr. B.* p. 37, no. 342 (1871); *Andersson, B. Damara Land, ed. Gurney*, p. 68 (1872); *Buckley, Ibis*, 1874, p. 374; *Shelley, Ibis*, 1875, p. 69; *Sharpe, edit. Layard's B. S. Afr.* p. 306 (1876); *Barratt, Ibis*, 1876, p. 202; *Ayres, tom. cit.* p. 425; *Shelley, Monogr. Nect.* p. 13, pl. 5.  
*Cinnyris famosa*, *Cuv. Règn. Anim.* i. p. 412 (1817); *Less. Man. d'Orn.* ii. p. 59 (1828); *id. Traité d'Orn.* i. p. 292, no. 3 (1831); *Hahn, Orn. Atlas, Cinnyris*, pl. 3 (1834).  
*Cinnyris famosus*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 504 (1819).  
*Nectarinia formosa*, *Bp. Comptes Rendus*, 1854, p. 265.

*Northern Race* (*N. cupreonitens*).

*Nectarinia famosa* (*nec L.*), *Rüpp. Neue Wörb.* p. 90 (1835-40); *id. Syst. Uebers.* p. 28 (1845); *Brehm, Reis. n. Habesch*, p. 211, no. 42 (1863); *Heugl. Orn. N.O.-Afr.* i. p. 221 (1871).  
 Soui-manga à longue queue, *Lefebvr. Voy. Abyss.*, *Zool.* p. 88 (1845-50).

*Nectarinia cupreonitens*, *Shelley, Monogr. Nect.* p. 17, pl. 6. fig. 1.

*Adult male.* Wings and tail black; all the rest of the plumage brilliant dark green, with a golden gloss on the upper parts, whilst the breast and abdomen are darker; on each side of the breast a few fluffy bright yellow feathers (pectoral tufts).

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Ad. ♂. Drakensberg . . . . .	1·45	3·3	3·3 [6·0]	0·65
Ad. ♂. South Africa . . . . .	1·40	3·1	2·5 [5·5]	0·65
Ad. ♂. Beaufort . . . . .	1·40	2·59	2·3 [5·0]	0·65

*Adult female.* All the upper parts pale earthy brown; wings and tail darker brown, the secondaries and some of the tail-feathers faintly edged with whitish; outer web of outermost pair entirely white; underparts dull creamy yellow, the throat and chest shading into brownish; a pale yellowish streak along the cheeks. Wing 2·8 inches.

*Immature male.* Crown and mantle olive-brown; shoulders, wing-coverts, lower back, and tail-coverts brilliant green; wings and tail nearly black; central pair of tail-feathers fully developed; underparts yellow, rather dull on the chest and throat; a distinct yellow band extending from the lores along the lower margin of the ear-coverts.

*Young males* are distinguished from the adult females by the prominence of the yellow on the underparts.

*Hab.* South Africa, extending from the Cape Colony to Natal and into the Eastern Transvaal.

*Northern Race* (*N. cupreonitens*).—In Abyssinia and (*teste* one immature male from Casamanzo) in Senegambia *N. famosa* is represented by a somewhat smaller race, which is distinguished by the strong coppery shade on the head and neck.

*Adult male* (type). Like *N. famosa*, but with a strong coppery shade on the crown and all round the neck. Culmen 1·2 inch, wing 3·1, tail 2 [4·2], tarsus 0·65.

<i>a.</i> ♂ ad. st.	South Africa.	Hon. J. Melville [P.].
<i>b.</i> ♂ imm. st.	South Africa.	F. Campbell, Esq. [P.].
<i>c.</i> ♂ imm. st.	South Africa.	Sir A. Smith [C.].
<i>d.</i> ♀ ad.; <i>e.</i> Juv. sk.	South Africa.	Sir A. Smith [C.].
<i>f, g.</i> ♂ ♀ ad. st.	South Africa.	Purchased.
<i>h.</i> ♂ imm. sk.	South Africa.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>i.</i> ♂ ad. sk.	South Africa.	R. B. Sharpe, Esq.
<i>k, l, m.</i> ♂ imm. sk.	Cape Colony ( <i>Layard</i> ).	R. B. Sharpe, Esq.
<i>n, o.</i> ♂ imm. sk.	Cape Colony ( <i>Andersson</i> ).	R. B. Sharpe, Esq.

<i>p.</i> ♂ juv. sk.	Cape Town, Nov. 16 ( <i>Andersson</i> ).	R. B. Sharpe, Esq.
<i>q.</i> ♂ ad. sk.	Fort Beaufort.	R. B. Sharpe, Esq.
<i>r.</i> ♂ imm. sk.	Eland's Post ( <i>T.C. Atmore</i> ).	R. B. Sharpe, Esq.
<i>s.</i> ♀ ad. sk.	Kingwilliamstown, Brit. Caffraria.	Capt. H. Trevelyan [P.].
<i>t.</i> ♂ ad. sk.	Drakensberg Mountains, Dec. 19.	T. E. Buckley, Esq. [P.].
<i>u, v.</i> ♂ ♀ ad. sk.	Lydenburg, E. Trans- vaal.	F. A. Barratt, Esq. [C.].
<i>w.</i> ♂ imm. sk.	Macamac, Nov. 27.	F. A. Barratt, Esq. [C.].

*Northern Race.*

<i>x.</i> ♂ ad. sk.	Abyssinia, Aug. 1856.	R. B. Sharpe, Esq. (Type of <i>N. cupreonitens</i> .)
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### 3. *Nectarinia pulchella*.

- Le Grimpereau à longue queue du Sénégal, *Briss. Orn.* iii. p. 645, pl. 34, fig. 3 (1760); *Daubent. Pl. Enl.* pl. 670, fig. 1.
- Certhia pulchella*, *Linn. S. N.* i. p. 187 (1766); *P. L. S. Müller, S. N.* ii. p. 259 (1773); *Gm. S. N.* i. p. 481 (1788); *Lath. Ind. Orn.* i. p. 288 (1790); *Shaw, Gen. Zool.* viii. p. 210 (1811).
- Souimanga vert doré etc., *Montb. Hist. Ois.* v. p. 217 (1822).
- Beautiful Creeper, *Lath. Gen. Syn. B.* ii. p. 719 (1781); *id. Gen. Hist. B.* iv. p. 217 (1822).
- Souimanga à longue queue, *Aud. et Vieill. Ois. Dor.* ii. p. 62, pl. 40 (1802).
- Le Sucrier cossu, *Levaill. Ois. d'Afr.* vi. p. 154, pl. 293, fig. 1 (1808); *Sundev. Krit. Framst., Levaill.* p. 56 (1857).
- Cinnyris pulchellus*, *Cuv. Règn. Anim.* i. p. 412 (1817); *Bonn. et Vieill. Enc. Méth.* ii. p. 586 (1823); *Less. Man. d'Orn.* ii. p. 26 (1828); *id. Traité d'Orn.* p. 293 (1831); *Rüpp. Neue Wirbelth.* p. 90 (1835); *Swains. B. W. Afr.* ii. p. 123, pl. 14 (1837); *Ferr. et Gal. Voy. Abyss.* iii. p. 248 (1847).
- Cinnyris caudatus*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 508 (1819); *Bonn. et Vieill. Enc. Méth.* ii. p. 595 (1823); *Less. Man. d'Orn.* ii. p. 54 (1828).
- Nectarinia melampogon*, *Licht. Verz. Doubl.* p. 15 (1823); *Hartl. Orn. W.-Afr.* p. 52 (1857); *Heugl. J. f. O.* 1864, p. 262.
- Nectarinia caudata*, *Drapiez, Dict. Class.* xv. p. 512 (1829).
- Nectarinia pulchella*, *Jard. Monogr. Sun-birds*, pp. 207, 259, pl. 18 (1842); *Bp. C. A.* i. p. 404 (1850); *Strickl. P. Z. S.* 1850, p. 216; *Hartl. Orn. W.-Afr.* p. 52 (1857); *id. J. f. O.* 1861, p. 109; *Antin. Cat. descrr. Ucc.* p. 35 (1864); *Bocage, Journ. Lisb.* 1866, p. 136; *Heugl. Reise weiss. Nil*, p. 337 (1869); *Finsch, Trans. Z. S.* vii. p. 227 (1869); *Blanf. Geol. & Zool. Abyss.* p. 354 (1870); *Heugl. Orn. N.O.-Afr.* i. p. 223 (1871); *Shelley, Monogr. Nect.* p. 9, pl. 4.
- Panaeola pulchella*, *Cab. Mus. Hein.* i. p. 101 (1850); *Reichenb. Handb. Scansor.* p. 297, pl. 581, figs. 3952-53 (1854); *Antin. & Salvad. Ann. Mus. Civ. Gen.* iv. pp. 90 & 453 (1873).

*Adult male.* All the upper parts of the body, sides, and front of neck, lower breast, abdomen, and under tail-coverts deep metallic green with a yellowish lustre; quills and shoulders, under wing-

coverts and tail-feathers uniform black, some of the latter edged with glossy green; centre of chest with a large patch of crimson-red; the neighbouring green feathers are washed and tipped with pale yellow; bill and legs black; iris dark brown. Culmen 0·6–0·7 inch, wing 2·3, tail 1·8 [4·2–4·8], tarsus 0·55.

*Adult female.* Upper surface uniform earthy brown with a slight olive or yellow tinge; tail dark brown, largely tipped with white; underparts dull whitish yellow. Length of wing 2·1 inches.

*Young male.* Like the female, but has the throat dull brownish.

*Immature male.* The green metallic colour first appears on the shoulders and wing-coverts, then on the throat, and soon the red patch of the chest begins to develop itself; then the upper tail-coverts and the lower back become green, and at last the mantle and the crown.

*Hab.* Northern half of the Ethiopian Region.

a. ♂ ad. st.	Gambia.	Purchased.
b. ♂ imm. st. (moulting).	Gambia.	Purchased.
c. ♂ ad. sk.	Anseba valley, 4000 feet, July 23, 1868.	W. T. Blanford, Esq. [C.]
d. ♀ ad. sk.	Anseba valley, Aug. 5, 1868.	W. T. Blanford, Esq. [C.]
e. ♂ ad. sk.	Abyssinia.	R. B. Sharpe, Esq.
f, g. ♂ ♀ ad. sk.	Near Khartoum, Oct. 1861.	Consul Petherick [C.]
h. ♂ ad. sk.	Bejook, July 16, 1868 ( <i>Jesse</i> ).	R. B. Sharpe, Esq.
i. ♂ imm. sk.	Kordofan, June 1867.	R. B. Sharpe, Esq.
k. ♀ ad. sk.	Sennaar.	R. B. Sharpe, Esq.
l, m. ♂ juv. sk.	Casamanze ( <i>Verreaux</i> ).	R. B. Sharpe, Esq.
n, o. ♂ ad. sk.	Casamanze ( <i>Verreaux</i> ).	R. B. Sharpe, Esq.
p. ♂ ad. sk.	Fantee.	R. B. Sharpe, Esq.
q. ♂ imm. sk. (moulting).	Bissao.	R. B. Sharpe, Esq.
r. ♀ ad.; s. ♂ imm. sk.	Senegal ( <i>A. Marche</i> ).	R. B. Sharpe, Esq.
t, u. ♂ ♀ ad. sk.	Senegal, Sept. 1861.	R. B. Sharpe, Esq.
v. ♂ imm. sk. (moulting).	Bathurst ( <i>Quin</i> ).	R. B. Sharpe, Esq.
w, x. ♀ ad.; y. [♂] juv. sk.	Bathurst ( <i>A. Marche</i> ).	R. B. Sharpe, Esq.
z. ♀ ad.; a', b'. ♂ juv. sk.	DaKar, Cape Verd ( <i>A. Marche</i> ).	R. B. Sharpe, Esq.
c'. [♂] juv. sk.	Daranka, Gambia ( <i>A. Marche</i> ).	R. B. Sharpe, Esq.

#### 4. *Nectarinia metallica*.

*Nectarinia metallica*, *Licht. Verz. Doubl.* p. 15 (1823); *Temm. Pl. Col.* 347, figs. 1 & 2 (1825); *Henpr. & Ehrenb. Symb. Phys.* pl. 1 (1828); *Cretzschm. in Rüpp. Atlas, Vög.* p. 16, pl. 7 (1828); *Jard. Monogr. Sun-birds*, pp. 211 & 260 (1842); *Rüpp. Syst. Uebers.* p. 28 (1845); *Gray, Gen. B. i.* p. 98 (1847); *Strickl. P. Z. S.* 1850, p. 216; *Scat. Contr. Orn.* 1852, p. 124; *Heugl. Faun. roth.*



- Meer.* p. 21 (1861); *id. Reise weiss. Nil.* p. 337 (1869); *Finsch & Hartl. Vög. Ost-Afr.* p. 214 (1870); *Finsch, Trans. Z. S.* vii. p. 228 (1869); *Blanf. Geol. & Zool. Abyss.* p. 353 (1870); *Heugl. Orn. N.O.-Afr.* i. p. 224 (1871); *Shelley, B. Egypt.* p. 112, pl. 4 (1872); *Heugl. J. f. O.* 1874, p. 48.
- Cinnyris metallicus*, *Less. Man. d'Orn.* ii. p. 37 (1828); *Rüpp. Neue Wirbelth.* p. 90 (1835); *Ferr. et Gal. Voy. Abyss.* iii. p. 248 (1847); *Bp. C. A.* i. p. 406 (1850).
- Souï-manga métallique, *Lefebvr. Voy. Abyss., Ois.* p. 89 (1845-50).
- Hedydipna metallica*, *Cab. Mus. Hein.* i. p. 101 (1850); *Reichenb. Handb. Scansor.* p. 299, pl. 583, figs. 3959-62 (1854); *Antin. Cat. descr. Ucc.* p. 36 (1864); *id. & Salvad. Ann. Mus. Civ. Gen.* iv. pp. 90 & 453 (1878); *Shelley, Monogr. Nect.* p. 3, pl. 2.
- Nectarinia* sp. ? *Heugl. Ibis*, 1859, p. 340.

*Adult male.* Head and neck all round, mantle, and lesser wing-coverts deep metallic green; rest of back, upper tail-coverts, and a crescent bordering the green of the fore neck brilliant deep purplish blue; quills uniform dark brown, the greater coverts still darker; tail-feathers black with a blue lustre; edge of wing and under wing-coverts black; rest of the underparts rich gamboge-yellow; under tail-coverts nearly white; bill and feet black; iris dark brown. Culmen 0.4-0.5 inch, wing 2.1-2.2, tail 1.4-1.5 [3.8-4.0], tarsus 0.6.

*Immature male.* Central pair of tail-feathers not protruding so far beyond the others, which as a rule are partly edged with whitish.

*Adult female.* All the upper parts uniform pale earthy brown; tail-feathers blackish brown, the outer pair edged and tipped with white; edge of wing and under wing-coverts dull white; all the rest of the underparts pale yellow. Scarcely smaller in size than the male.

*Hab.* North-east Africa.

- |                              |  |                            |
|------------------------------|--|----------------------------|
| a. ♀ ad. sk.                 | Nubia, April 11, 1870<br>( <i>Shelley</i> ). | R. B. Sharpe, Esq.         |
| b. ♂ ad. sk.                 | Nubia ( <i>Shelley</i> ).                    | R. B. Sharpe, Esq.         |
| c. ♂ ad. sk.                 | Hor Tamanib, Nubia ( <i>J. K. Lord</i> ).    | R. B. Sharpe, Esq.         |
| d. ♂ ad. sk.                 | Sennaar.                                     | R. B. Sharpe, Esq.         |
| e. ♂ imm. sk.<br>(moulting). | White Nile, July 1857.                       | R. B. Sharpe, Esq.         |
| f. ♀ ad. sk.                 | White Nile, Oct. 1857.                       | R. B. Sharpe, Esq.         |
| g. ♂ ad.; h. ♂<br>imm. sk.   | White Nile.                                  | F. Galton, Esq. [P.].      |
| i. ♂ imm. sk.<br>(moulting). | White Nile.                                  | Sir S. Baker [P.].         |
| k, l. ♀ ad. sk.              | Achor, Bogos Land ( <i>Esler</i> ).          | R. B. Sharpe, Esq.         |
| m. ♂ imm. sk.<br>(moulting). | Anseba valley, 4000 feet,<br>Aug. 1868.      | W. T. Blanford, Esq. [C.]. |
| n. ♂ ad. sk.                 | Abyssinia.                                   | R. B. Sharpe, Esq.         |
| o. ♀ ad. sk.                 | Abyssinia.                                   | Dr. Rüppell [C.].          |
| p, q. ♂ ♀ ad. sk.?           | Abyssinia.                                   | R. B. Sharpe, Esq.         |
| r. ♂ imm. sk.                | Abyssinia.                                   | R. B. Sharpe, Esq.         |
| s. ♀ ad. sk.                 | Koomayli, Abyssinia,<br>500 feet, June 1868. | W. T. Blanford, Esq. [C.]. |
| t. ♂ imm. sk.                | N.E. Africa.                                 | Purchased.                 |

5. *Nectarinia platyura*.

- Le Sucrier figuier, *Levaill. Ois. d'Afr. vi. p. 157, pl. 293. fig. 2* (1808); *Sundev. Krit. Framst., Levaill. p. 56* (1857).  
 Cinnyris platurus, *Vieill. N. Dict. d'Hist. Nat. xxxi. p. 501* (1819); *Aud. et Vieill. Enc. Méth. ii. p. 589* (1823); *Less. Man. d'Orn. ii. p. 40* (1828).  
 Saccharine Creeper, *Lath. Gen. Hist. B. iv. p. 225, no. 13* (1822).  
 Comyns Creeper, *Lath. tom. cit. p. 229, no. 17*.  
*Nectarinia cyanopygos*, *Licht. Verz. Doubl. p. 15* (1823); *id. Nomencl. Av. p. 55* (1854); *Müll. J. f. O. 1855, p. 15, no. 162*.  
*Nectarinia sylviella*, *Temm. Pl. Col. 347, note* (1825).  
*Nectarinia platyura*, *Drapièz, Dict. Class. xv. p. 511* (1829); *Jard. Monogr. Sun-birds, pp. 209, 260, pl. 19* (1842); *Bp. C. A. i. p. 405, no. 6* (1850); *Hartl. Orn. W.-Afr. p. 53, no. 153* (1857); *id. J. f. O. 1861, p. 109*; *Antin. Cat. p. 36* (1864); *Hartm. J. f. O. 1866, p. 237*; *Layard, B. S. Afr. p. 83, no. 140* (1867); *Heugl. Reise weissen Nil, p. 337* (1863); *Gray, Hand-l. B. i. p. 109, no. 1333* (1869); *Finsch et Hartl. Vög. Ost-Afr. p. 215* (1870); *Sharpe, Cat. Afr. B. p. 40, no. 379* (1871).  
*Cinnyris sylviellus*, *Less. Traité d'Orn. i. p. 294, no. 10* (1831).  
*Platydipna platyura*, *Cab. Mus. Hein. i. p. 101* (1850).  
*Hedydipna platyura*, *Reichb. Handb. Scaursorie, p. 299, no. 699, pl. 583, figs. 3963-64* (1854); *Shelley, Monogr. Nect. p. 7, pl. 3*.  
*Nectarinia platyura*, *Heugl. Orn. N.O.-Afr. i. p. 225* (1869).

*Adult male.* Very similar to *N. metallica*, but without a purplish-blue crescent separating the green and yellow parts on the chest. The dark-green parts have a strong coppery-red metallic lustre. Lower back more like the centre of the back, and not so very blue as in *N. metallica*. Culmen 0·5 inch, wing 2·25, tail 1·8 [4·2], tarsus 0·55.

*Hab.* Represents *N. metallica* in Senegambia.

a. ♂ ad. st.	Gambia.	Purchased.
b. ♂ ad. sk.	West Africa.	Purchased.
c. ♂ ad. sk.	West Africa.	R. B. Sharpe, Esq.
d. ♂ ad. sk.	West Africa.	R. B. Sharpe, Esq.
e. ♂ ad. sk.	Casamanze ( <i>Verreaux</i> ).	R. B. Sharpe, Esq.

## 3. ANTHOBAPHES.

*Anthobaphes*, *Cab. Mus. Hein. i. p. 103* (1850)..... A. violacea. Type.

Bill much longer than rest of the head; culmen rounded and curved downwards. Nostrils basal, longitudinal, quite exposed, with a very well-developed operculum; no nasal or rictal bristles. First primary short; tip of wing formed by third, fourth, and fifth primaries. Tail graduated, the central feathers considerably longer than the rest; tail of female slightly graduated.

*Plumage of male.* Head and neck all round metallic; yellow pectoral tufts; no downy feathers on back to cover the rump, which is not yellow; tarsus anteriorly covered with scales.

*Range.* South Africa.

1. *Anthobaphes violacea*.

- Certhia violacea*, *Linn. S. N.* i. p. 188, no. 22 (1766); *P. L. S. Müll. S. N.* ii. p. 260, no. 22 (1773); *id. op. cit., Anhang*, p. 97, no. 27 (1776); *Gm. S. N.* i. p. 482 (1788); *Lath. Ind. Orn.* i. p. 288, no. 21 (1790); *Shaw, Gen. Zool.* viii. p. 211, pl. 20 (1811).
- Petit Grimpereau à longue queue du Cap de Bonne Espérance, *Daubent. Pl. Enl.* fig. 2 (1770-86).
- ? *Certhia cinerea*, *P. L. S. Müller, S. N., Anhang*, p. 98 (1776); *Gm. S. N.* i. p. 481, no. 52 (1788, *ex Cinereous Creeper of Lath.*); *Lath. Ind. Orn.* i. p. 289, no. 25 (1790).
- Souï-manga à longue queue et capuchon violet, *Buff. Hist. Ois.* v. p. 517 (1778).
- Violet-headed Creeper, *Lath. Gen. Syn. B.* ii. p. 718, no. 19 (1781); *id. Gen. Hist. B.* iv. p. 213, no. 3 (1822).
- ? Cinereous Creeper, *Lath. Gen. Syn. B.* ii. p. 723, no. 22 (1781).
- ? Orange-breasted Creeper, *Lath. tom. cit.* p. 734, no. 38; *id. Gen. Hist. B.* iv. p. 264, no. 70 (1822).
- ? *Certhia aurantia*, *Gm. S. N.* i. p. 472, no. 35 (1788, *ex Orange-breasted Creeper of Lath.*); *Lath. Ind. Orn.* i. p. 295, no. 47 (1790); *Walden, Ibis*, 1870, p. 43.
- Certhia crocata*, *Shaw & Nodd. Nat. Misc.* vi. pl. 210.
- Le Souï-manga à capuchon violet, *Aud. et Vieill. Ois. Dor.* ii. p. 61, pl. 39 (1802).
- ? Le Souï-manga orangé, *Aud. et Vieill. tom. cit.* p. 64 (*ex Gm.* no. 35).
- Le Suerier orangé, *Levaill. Ois. d'Afr.* vi. p. 152, pl. 292. figs. 1, 2 (1808); *Sundev. Krit. Framst., Levaill.* p. 56 (1857).
- Nectarinia violacea*, *Illig. Prodr. Syst. Mann. et Av.* p. 210 (1811); *Jard. Monogr. Sun-birds*, pp. 200, 258, pl. 16 (1843); *Gray, Gen. B.* i. p. 98 (1847); *Blyth, Cat. B. Mus. As. Soc.* p. 223, no. 1350 (1849); *Bp. C. A.* i. p. 404, no. 3 (1850); *Grill, Zool. Anteckn.* pp. 10, 39 (1858); *Pelzeln, Reise Novara, Vög.* p. 51 (1865); *Layard, B. S. Afr.* p. 78, no. 130 (1867); *Finsch & Hartl. Vög. Ost-Afr.* p. 213, no. 94 (1870); *Sharpe, Cat. Afr. B.* p. 37, no. 344 (1871).
- Cinnyris violaceus*, *Cw. Règn. Anim.* i. p. 412 (1817); *Vieill. Enc. Méth.* ii. 598 (1823); *Less. Man. d'Orn.* ii. p. 27 (1828); *id. Traité d'Orn.* i. p. 293, no. 4 (1831).
- ? *Cinnyris cinereus*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 498 (1819, *ex Cinereous Creeper of Lath.*); *id. Enc. Méth.* ii. p. 585 (1823).
- ? *Cinnyris aurantia*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 508 (1819); *Less. Man. d'Orn.* ii. p. 53 (1828).
- Cinnyris violaceofrons*, *Bonn. et. Vieill. Enc. Méth.* ii. p. 600 (1823).
- Nectarinia cinerea*, *Drapiez, Dict. Class.* xv. p. 510 (1829).
- Cinnyris croceus*, *Less. Traité d'Orn.* i. p. 294, no. 8 (*ex Levaill.* pl. 292. fig. 2, 1831).
- Anthobaphes violacea*, *Cab. Mus. Hein.* i. p. 103, no. 565 (1850); *Reichb. Handb. Scansoriæ*, p. 298, pl. 582. figs. 3954-56 (1854); *Gurney, Anderss. Damar. Ld.* p. 74 (1872).
- Anthreptes violacea*, *Licht. Nomencl. Ar.* p. 56 (1854).
- Anthobaphes violacea*, *Bp. Comptes Rendus*, 1854, p. 265; *Sharpe, ed. Layard's B. S. Afr.* p. 308 (1876); *Shelley, Monogr. Nect.* p. 23, pl. 8.
- Promerops violacea*, *Gray, Hand-l. B.* i. p. 110, no. 1853 (1869).

*Adult male.* Head and neck all round and the least wing-coverts black, with a deep metallic green gloss; lower half of throat changing

from green into deep lilac-purple, this colour forming a broad crescent across the chest; rest of back and wing-coverts olive-yellow; wings and tail dark brown, externally washed with the colour of the back; breast, abdomen, and under tail-coverts bright orange-yellow; pectoral tufts bright yellow; flanks olive-yellow; under wing-coverts and thighs olive-grey. Culmen 0·95 inch, wing 2·1–2·2, tail 1·8 [3·0], tarsus 0·68.

*Juv. male and adult female.* Above uniform olive-brown, washed with yellowish on the upper tail-coverts and on the outer web of the quills and tail; all the underparts dull yellowish, washed with brownish, especially on the throat and chest. Wing 2 inches.

*Hab.* South Africa; apparently confined to the Cape Colony.

*Obs.* This species is the connecting link between the genera *Nectarinia* and *Æthopyga*.

a. ♂ ad. st.	South Africa.	Dr. Lee [P.].
b. ♂ ad. st.	South Africa.	Hon. J. Melville [P.].
c, d. ♂ ♀ ad. st.	South Africa.	Sir A. Smith [C.].
e. ♂ juv. sk. (moulting).	South Africa.	Sir A. Smith [C.].
f-i. ♂ ♀ ad. sk.	South Africa ( <i>Layard</i> ).	R. B. Sharpe, Esq.
k. ♂ imm. sk.	South Africa ( <i>Layard</i> ).	R. B. Sharpe, Esq.
l. ♂ ad. sk.	South Africa.	F. D. Godman and O. Salvin, Esqrs. [P.].
m. ♀ ad. sk.	South Africa.	R. B. Sharpe, Esq.
n. ♂ juv. sk.	Cape Town ( <i>Butler</i> ).	R. B. Sharpe, Esq.
o. ♂ imm. sk.	Table Mountain, Dec. 4, 1861 ( <i>Andersson</i> ).	R. B. Sharpe, Esq.
p. ♀ ad. sk.	Table Mountain, Nov. 3, 1861 ( <i>Andersson</i> ).	R. B. Sharpe, Esq.
q. ♀ ad. sk.	Knysna, Jan. 24, 1866 ( <i>Andersson</i> ).	R. B. Sharpe, Esq.

#### 4. CHALCOSTETHA.

Chalcostetha, *Cab. Mus. Hein.* i. p. 103 (1850)..... C. insignis. Type.

Very similar to *Æthopyga* but for the plumage, which is of a different pattern. The feathers of the back and rump are quite short and metallic coloured; tail much graduated; female very plainly coloured.

*Range.* Malayan Subregion.

##### 1. Chalcostetha insignis.

*Nectarinia pectoralis*, *Temm. Pl. Col.* 138. fig. 3 (1823, *nec Horsf.*);

*Schl. & Müll. Naturl. Gesch. Zool., Aves*, p. 57, pl. 9. fig. 2 (1846).

*Cinnyris pectoralis*, *Less. Man. d'Orn.* ii. p. 33 (1828).

*Nectarinia pectoralis*, *Drapiez, Dict. Class.* xv. p. 513 (1829).

*Nectarinia calcostetha*, *Jard. Monogr. Sun-birds*, p. 263 (1842).

*Nectarinia insignis*, *Jard. tom. cit.* p. 274 (1842, *ex Temm.*); *Gray,*

*Gen. B.* i. p. 98 (1847); *Gould, P. Z. S.* 1865, p. 663; *id. B. Asia*, part 19, pl. 5 (1867).

*Cinnyris macklotii*, *Bp. C. A.* i. p. 408, no. 44 (1850, *ex Temm.*).

*Chalcostetha pectoralis*, *Cab. Mus. Hein.* i. p. 103 (1850).

*Chalcostetha macklotii*, *Reichb. Handb. Scausoriæ*, p. 286, no. 662, pl. 572. figs. 3898-99 (1854).

*Anthreptes chalcostetha*, *Licht. Nomencl. Av. Mus. Berol.* p. 56 (1854).

*Arachnechthra chalcostetha*, *Horsf. & Moore, Cat. B. E.I. Co. Mus.* ii. p. 746 (1856-58).

*Nectarinia macklotii*, *Scat. P. Z. S.* 1863, p. 220.

*Promerops pectoralis*, *Gray, Hand-l. B. i.* p. 110, no. 1354 (1869).

*Arachnothera insignis*, *Gray, tom. cit.* p. 112, no. 1384.

*Chalcostetha insignis*, *Walden, Ibis*, 1870, p. 44; *Salvad. Ann. Mus. Civic. Genov.* v. p. 177 (1874); *Hume, Str. F.* iii. p. 319 (1875); *Tweedd. tom. cit.* p. 302; *id. P. Z. S.* 1878, p. 621; *Hume & Davison, Str. F.* vi. p. 183 (1878); *Shelley, Monogr. Nect.* p. 87, pl. 30; *Hume, Str. F.* 1979, p. 89.

*Chalcostetha insperata*, *Hume, Str. F.* 1875, p. 320, note.

*Nectarinia porphyrolæma*, *Brüggem. Abhandl. nat. Ver. Bremen*, v. p. 73 (1876).

*Nectarinia insignis*, *Brügg. Abhandl. nat. Ver. Bremen*, v. p. 465 (1876).

*Chalcostetha pectoralis*, *Oates, B. Br. Burm.* i. p. 317 (1883).

*Adult male.* General colour black in position A, with the exception of the blackish-grey abdomen, flanks, and under tail-coverts; in position B the crown and nape and the least wing-coverts are golden metallic green, the scapulars, the lower back, and the upper tail-coverts are more purplish blue than green; in position C the reverse takes place, the crown being purplish blue and the lower back bluish green: tail black with a bluish gloss; wings and rest of upper parts, sides of head, and neck sooty black; fore neck and breast brilliant purplish blue; centre of throat coppery, in position C changing into greenish; under wing-coverts and edge of wing black; pectoral tufts bright yellow. Culmen 0·8 inch, wing 2·35, tail 2·1, tarsus 0·60.

*Female.* Crown and nape ashy brown; rest of upper parts yellowish olive; tail black, largely tipped with white; underparts whitish, strongly washed with pale yellow. Wing 2·1 inches.

*Hab.* From Cochin China and Siam to Southern Tenasserim; Malayan peninsula, Sunda Islands, and Celebes.

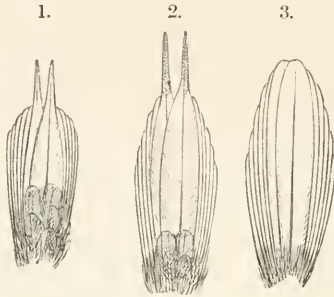
a. ♂ ad. sk.	Siam.	M. Mouhot [C.].
b. ♂ ad. sk.	Salanga Islands.	Capt. D. Weber [C.].
c. ♂ ad. sk.	Penang.	J. Gould, Esq.
d. ♂ ad. sk.	Pulo Pinang.	F. D. Godman and O. Salvin, Esqrs. [P.].
e. ♂ ad. sk.	Sumatra.	A. R. Wallace, Esq. [C.].
f. ♂ ad. sk.	Sarawak.	J. Motley, Esq. [C.].
g, h. ♂ ♀ ad. sk.	Banjermassing.	J. Motley, Esq. [C.].

## 5. ÆTHOPYGA.

<i>Æthopyga</i> , <i>Cab. Mus. Hein.</i> i. p. 103 (1850) . . . . .	Type.
<i>Aithopyga</i> , <i>Reichb. Handb. Scausoriæ</i> , p. 300 (1854).	Æ. siparaja.
<i>Urodrepanis</i> , <i>Shelley, Monogr. Sun-birds</i> part i. (1876) . . . . .	Æ. christinæ.
<i>Eudrepanis</i> , <i>Sharpe in Shelley, Monogr. Sun-birds</i> , pa t iii. (1877) . . . . .	Æ. pulcherrima.

Bill slightly longer than rest of head, curved; culmen ridged.

Nostrils bared, longitudinal, operculated. First primary short; tip of wing formed by 3rd, 4th, and 5th primaries. Tail much graduated, the central feathers (in the male) generally projecting far beyond the rest. Tarsus anteriorly covered with transverse scales; claws very short. Sexes differing greatly in coloration. In the male: sides of the neck and of the head never metallic: always some deep non-metallic red in the plumage; crown and tail always metallic; rump and lower back vivid yellow; long fluffy feathers on the sides of the back capable of covering the rump entirely.



1. Tail of *Æ. bella*.      2. Tail of *Æ. christinae*.      3. Tail of *Æ. siparaja*.

*Range.* Indian and Malayan Regions.

*Key to the Species (males).*

- A. Tail much graduated; central pair of feathers projecting.
- a. Lower breast and abdomen greyish, never brightly coloured.
- a'. Fore neck and chest black; upper throat metallic blue; mantle dark red . . . . . *saturata*, p. 15.
- b'. Throat, fore neck, and chest red.
- a''. Tail-feathers scarlet; upper tail-coverts metallic blue . . . . . *temmincki*, p. 16.
- b''. Tail-feathers and upper tail-coverts metallic.
- a'''. Mantle olive; no moustachial stripe; narrow blue band across throat . . . . *eximia*, p. 17.
- b'''. Mantle red; blue metallic moustachial stripe.
- a<sup>4</sup>. A few feathers near base of bill red . . *mystacalis*, p. 23.
- b<sup>4</sup>. Whole forehead metallic blue-green.
- a<sup>5</sup>. Lower breast and abdomen sooty black . . . . . *magnifica*, p. 24.
- b<sup>5</sup>. Lower breast and abdomen olive or grey.
- a<sup>6</sup>. Upper tail-coverts and central pair of tail-feathers rich green; blue metallic patch to ear-coverts . . . . . *vigorzi*, p. 18.



metallie, in position B dark blue, in C dark purple; mantle, sides of lower neck, and part of scapulars dark red; a few feathers of the lower back are tipped with pale yellow, producing a narrow yellow band across the rump; abdomen and under tail-coverts dull olive-yellow; axillaries yellowish; edge of wing black; under wing-coverts white; fluffy pectoral tufts very pale, nearly white; bill black; iris and feet dark brown. (Type) Culmen 0·85 inch, wing 2·10-2·2, tail 2·8 [3·0]-3·3, tarsus 0·6.

*Adult female.* Coloured like the female of *Æ. nipalensis*, but has a pale yellowish narrow band across the rump. Wing 1·8 inch.

*Hab.* Himalayas and Assam.

a. ♂ ad. st.	Nepal.	B. H. Hodgson, Esq. [P.].
b, c. ♂ ad. sk.	Nepal ( <i>B. H. Hodgson</i> ).	India Museum.
d. ♂ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.]. (Type of species.)
e, f. ♂ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.]. (Types of <i>Æ. hodgsoni</i> , Gray.)
♂ ad. sk.	Nepal.	Gould Collection.
h. ♂ ad. sk.	Nepal.	Purchased.
i. ♂ ad. sk.	Darjeeling ( <i>Eccles</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].
k. ♂ ad. sk.	Darjeeling ( <i>R. Harrison</i> ).	H. Seebohm, Esq. [P.].
l. ♂ ad. sk.	Sikhim, Nov. 1873.	H. Seebohm, Esq. [P.].
m, n. ♂ ad. sk.	Somgurh, May 29, 1875.	H. Seebohm, Esq. [P.].
o, p, q. ♂ ad. sk.	Bootan ( <i>Pemberton</i> ).	India Museum.
r, s. ♂ ad. sk.	Assam.	India Museum. (Type of <i>Æ. assamensis</i> , McClelland.)

## 2. *Æthopyga temmincki*.

*Nectarinia temmincki*, *S. Müll. Natuurl. Gesch. Land- en Volkenk.* p. 173, note (1843); *S. Müll. & Schl. op. cit. Zool., Aves*, p. 56, pl. 8, fig. 2 (1846); *Gray, Gen. B. i. p. 98* (1847); *Bp. Consp. Av. i. p. 405, no. 15* (1850).

*Æthopyga temmincki*, *Reichb. Handb. Scansoriæ*, p. 300, no. 702, pl. 584, fig. 3967 (1854); *Walden, Ibis*, 1870, p. 33; *Sharpe, Ibis*, 1873, p. 419; *Salvad. Ann. Mus. Civ. Genova*, xiv. p. 213 (1879); *Shelley, Monogr. Nect.* p. 47, pl. 16, fig. 1.

*Promerops temmincki*, *Gray, Hand-l. B. i. p. 110, no. 1347* (1867).

*Cinnyris temmincki*, *Beccari, Ann. Mus. Civ. Genova*, xiii. p. 453 (1878).

*Adult male.* Anterior half of the body all round and wing-coverts brilliant carmine; central pair of tail-feathers and outer webs of the others of the same colour; on each side of the upper throat a narrow band of metallic purplish blue; quills and inner webs of tail-feathers brown, the former edged with rufous olive; a narrow band of metallic purplish-blue feathers extending from the nostrils over the crown in the shape of a horseshoe; lower back and rump bright yellow; upper tail-coverts metallic purplish blue; lower half of breast, abdomen, and flanks silvery grey; sides of breast, axillaries, and under tail-coverts white; edge of wing red; under tail-coverts



and thighs yellow; bill, feet, and iris dark brown. Culmen 0·7 inch, wing 2·1, tail 2·3, tarsus 0·55.

*Female* hitherto unknown.

*Hab.* Sumatra and Borneo.

a. ♂ ad. sk.	Sumatra.	Purchased.
b. ♂ imm. sk. (moulting).	Sarawak.	H. Everett, Esq. [C.].

### 3. *Æthopyga eximia*.

*Nectarinia eximia*, *Horsf. Trans. Linn. Soc.* xiii. p. 168 (1820); *Jard. Monogr. Sun-birds*, p. 268 (1842); *Gray, Gen. B.* i. p. 98 (1847); *Bp. C. A. i.* p. 405 (1850).

*Nectarinia kuhli*, *Tenn. Pl. Col.* pl. 376. figs. 1 & 2 (1825); *S. Müll. & Schleg. Naturf. Gesch. Zool., Aves*, p. 56 (1846); *Schleg. Handl. Dierk.* p. 256 (1857).

*Cinnyris kuhli*, *Less. Man. d'Orn.* ii. p. 36 (1828).

*Cinnyris eximia*, *Vig. Mem. Raffles*, p. 673 (1830).

*Æthopyga eximia*, *Cab. Mus. Hein.* i. p. 103 (1850); *Reichenb. Handb. Scansor.* p. 303, pl. 587. figs. 3984-85 (1854); *Horsf. & Moore, Cat. B. E. I. Co. Mus.* ii. p. 736 (1856); *Walden, Ibis*, 1870, p. 37; *Shelley, Monogr. Nect.* p. 27, pl. 9.

*Anthreptes eximia*, *Licht. Nomencl. Av.* p. 56 (1854).

*Promerops eximia*, *Gray, Hand-l. B.* i. p. 109, no. 1340 (1869).

*Adult male.* Whole crown and upper tail-coverts metallic black, in position B deep brilliant green, in C purple; sides of head, hind neck, mantle, wing-coverts, and outer edge of quills dark olive-yellow; rump and lower back bright yellow; wings brown, with whitish inner edges; tail black; cheeks, throat, and upper breast dark red; across the throat an irregularly shaped band of metallic purplish-lilac feathers; under wing-coverts and the fluffy feathers of the sides of the breast and flanks pure white; abdomen and under tail-coverts dark olive; maxilla dark brown, mandible paler; iris and feet dark brown. (Types) Culmen 0·75-0·85 inch, wing 2·15-2·25, tail 1·75, tarsus 0·65.

*Adult female.* Olive yellowish green; crown and sides of head strongly washed with brown; wings and tail brown, externally edged with olive; inner web of quills and the fluffy feathers of the sides white; under wing-coverts olive-green; throat dull ashy. Culmen 0·75 inch, wing 2, tail 1·5, tarsus 0·65.

*Hab.* Java.

a, b. ♂ ♀ ad. sk.	Java ( <i>Dr. Horsfield</i> ).	India Museum. (Types of species.)
c, d. ♂; e, f. ♀ ad. sk.	Java ( <i>Dr. Horsfield</i> ).	India Museum.
g. ♂ ad. sk.	Java.	Purchased.
h. ♂ ad. sk.	Java.	Purchased.
i, k. ♂; l, m. ♀ ad. sk.	W. Java.	A. R. Wallace, Esq. [C.].
n, o. ♂ ♀ ad. sk.	Java ( <i>Mus. Lugd.</i> ).	Gould Collection.

4. *Æthopyga vigorsii*.

*Cinnyris vigorsii*, *Sykes, P. Z. S.* 1832, p. 98; *id. J. A. S. B.* iii. p. 542 (1834); *Jerd. Madras Journ.* xi. p. 227 (1840); *Blyth, J. A. S. B.* x. p. 925 (1841).

*Cinnyris concolor*, *Sykes, P. Z. S.* 1832, p. 99; *id. J. A. S. B.* iii. p. 543 (1834).

*Nectarinia vigorsii*, *Gould, B. Asia*, part 2, pl. 26 (1850).

*Æthopyga vigorsii*, *Reichb. Handb. Scansorie*, p. 303, no. 707, pl. 586. figs. 39, 79-81 (1854); *Horsf. & Moore, Cat. B. E. I. Co. Mus.* ii. p. 733, no. 1067 (1856); *Jerd. B. Ind.* i. p. 363 (1862); *Walden, Ibis*, 1870, p. 33; *Fairbank, Str. F.* 1876, p. 255; *Shelley, Monogr. Nect.* p. 71, pl. 23.

*Promerops vigorsii*, *Gray, Hand-l. B.* i. p. 110, no. 1348 (1869).

*Adult male.* Anterior half of crown, upper tail-coverts, and outer web of inner tail-feathers metallic, changing from dark-green to dark purplish blue; rest of tail black; moustachial streak and a little patch on the ear-coverts metallic blue, black in positions A and C; nape, ear-coverts, and wings blackish brown; hind neck and mantle very dark red; back and rump yellow; fore neck and chest crimson-red, mottled with yellow; edge of wing and centre of breast dark dusky brown; under wing-coverts and inner edge of quills white; rest of underparts ashy grey. (Type) Culmen 0·8 inch, wing 2·35, tail 2·2, tarsus 0·61. Wing 2·5-2·62 inches; tail 2·12-2·38 (*Fairbank*), central pair of feathers a little longer than the rest.

*Adult female.* Upper and under parts dull olive, with a strong grey tinge; wings and tail brown, the latter with very small light tips to the inner web of the outer pairs of feathers. Wing 2·13 inches.

*Hab.* Mountains of Bombay Presidency.

<i>a.</i> ♂ ad. sk.	Deccan ( <i>Sykes</i> ).	India Museum. (Type of species.)
<i>b, c.</i> ♀ ad. sk.	Deccan ( <i>Sykes</i> ).	India Museum. (Types of <i>C. concolor</i> , <i>Sykes</i> .)
<i>d, e.</i> ♂ ad. sk.	Bombay.	Gould Collection.
<i>f.</i> ♂ ad. sk.	Madras.	Sir W. Elliot [P.].

5. *Æthopyga seheriæ*.

Goulpourah Creeper, *Lath. Gen. Hist. B.* iv. p. 221, pl. 74 (1822).

*Nectarinia seheriæ*, *Tickell, J. A. S. B.* ii. p. 577, no. 37 (1833); *Walden, Ibis*, 1876, pp. 347, 348.

*Cinnyris miles*, *Hodgs. Ind. Rev.* ii. p. 273 (1837); *id. J. A. S. B.* xxiv. p. 575 (1855).

*Certhia goalpariensis*, *Royle, Ill. Him. Bot.* ii. p. 78, pl. 7. fig. 1 (1839).

*Cinnyris labecula*, *McClell. P. Z. S.* 1839, p. 167.

*Cinnyris mystacalis* (pt.), *Blyth, J. A. S. B.* xi. p. 107 (1842).

*Nectarinia goalpariensis*, *Jard. Monogr. Sun-birds*, pp. 230, 267, pl. 26 (1842); *Blyth, J. A. S. B.* xii. p. 969 (1843); *Gray, Cat. Mamm. & Birds Nepal pres. Hodgs.* p. 59 (1846); *id. Gen. B.* i. p. 98 (1847); *Blyth, Cat. B. Mus. As. Soc.* p. 223, no. 1351 (1849); *Bp.*

- C. A. i. p. 405, no. 8 (1850); Gould, B. Asia, part 2, pl. 25 (1850).*  
*Nectarinia labecula, Blyth, J. A. S. B. xii. p. 973 (1843); Gray, Gen. B. i. p. 98 (1847).*  
*Æthopyga miles, Cab. Mus. Hein. i. p. 103 (1850); Horsf. & Moore, Cat. B. E.I. Co. Mus. ii. p. 732, no. 1066 (1856); Jerd. B. Ind. i. p. 362 (1862); Walden, Ibis, 1870, p. 32; Godwin-Austen, J. A. S. B. xxxix. p. 98 (1870); Jerd. Ibis, 1872, p. 16; Blyth & Walden, Cat. Mamm. & Birds of Burmah, p. 141, no. 491 (1875); Walden, Ibis, 1876, p. 348; Hume, Str. F. 1877, p. 28; Anders. Zool. Yunnan Exped. p. 661 (1878).*  
*Æthopyga goalpariensis, Cab. Mus. Hein. i. p. 103 (1850); Reichb. Handb. Scansorie, p. 301, no. 703, pl. 534. figs. 3963-70 (1854); Hume, Nests and Eggs Ind. B. p. 146 (1873).*  
*Anthreptes goalpariensis, Licht. Nomencl. Av. p. 56 (1854).*  
*Promerops goalpariensis, Gray, Hand-l. B. i. p. 110, no. 1343 (1869).*  
*Æthopyga seheriæ, Hume, Str. F. 1877, p. 122; Shelley, Monogr. Nect. pl. 22; Hume, Str. F. 1879, p. 89.*

*Eastern var. (Æ. cara).*

- Cinnyris mystacalis (pt.), Blyth, J. A. S. B. xi. p. 107 (1842).*  
*Nectarinia goalpariensis (pt.), Blyth, J. A. S. B. xii. p. 969 (1843).*  
*Æthopyga miles, Walden, P. Z. S. 1866, p. 541; id. Ibis, 1876, p. 348; Beavan, Ibis, 1869, p. 419.*  
*Æthopyga lathamii, Hume, Str. F. 1874, p. 473.*  
*Æthopyga cara, Hume, l. c. (note); Walden, Ibis, 1876, p. 348; Hume & Davison, Str. F. vi. p. 179 (1878); Shelley, Monogr. Nect. p. 63, pl. 21; Oates, B. Brit. Burm. i. p. 316 (1883).*

*Adult male.* Anterior half of crown, upper tail-coverts, and central pair of tail-feathers metallic—in position B the crown purplish green and the tail dark green; in position C the crown dark green, tail purplish blue; hinder part of crown and nape and the long fluffy feathers of the sides of the back olive-brown; quills and wing-coverts brown, edged with olive; under wing-coverts and axillaries and inner edge of quills white; lower breast, flanks, and abdomen grey, more or less strongly washed with olive.

The amount of olive colour on the underparts varies from olive greenish or yellowish (*Æ. goalpariensis*, Royle, from Kumaon and N.W. Himalayas) to a clear pale ashy grey (typical *Æ. miles*, Hodg., from Nepal). In Assam we have again the olive-bellied form (*Æ. labecula*, McClelland); and in Burmah the birds have the nape and hinder part of the crown red like the mantle, instead of olive-brown (*Æ. cara*, Hume). Every intermediate form, however, occurs in Burmah itself, as will be seen from the following table:—

Locality.	Colour of nape.	Colour of abdomen.	Culmen.	Wing.	Tail.
			in.	in.	in.
♂. Burmah.....	Olive-brown.	Olive-yellowish.	0.75	2.15	2.55
♂. Burmah.....	Feathers edged with red, with a subterminal narrow olive line, rest black.	Olive-yellowish.	0.75	2.15	2.55

Locality.	Colour of nape.	Colour of abdomen.	Culmen. Wing. Tail.		
			in.	in.	in.
♂. Assam . . . . .	Red.	Olive-grey.	0.80	2.2	2.6
♂. Moulmein . . . .	Red.	} Pale yellowish grey.	} 0.70	} 2.15	} 1.8
♂. S. Tenasserim . .	Red.				
♂. Bhamo . . . . .	Brown.	Olive-yellow.	0.70	2.00	2.4
♂. Rangoon . . . . .	Red.	Greyish olive.	0.70	2.30	
♂ (3). Kumaon . . .	Brown.	} Pale greyish olive.	} 0.85	} 2.35	} 3.2
♂ (6). Nepal . . . .	Brown.				

The two specimens from Bhamo and from Tenasserim have the central tail-feathers remarkably short, of the same length as the rest, and with a deep blue gloss, the green colour in position B being restricted to the upper tail-coverts.

In the specimens from Rangoon the bases of the red feathers of the fore neck are whitish yellow, in the other specimens blackish, or, as in some, those of the upper throat white, whilst those of the chest and lower throat are dusky.

*Adult female.* Olive-green above, olive-yellow below; wings and tail brownish, the latter largely tipped with whitish; throat and fore neck like rest of underparts, and *not* washed with red as stated by Shelley. Length of wing in the type specimen of *Æ. goalpariensis* 2 inches.

*Hab.* From the N.W. Himalayas, through Nepal and Assam, to Burmah and Tenasserim—the grey-bellied and brown-naped form being found in Nepal, the grey-bellied and red-naped one in Burmah, the brown-naped and olive-bellied one east- and westwards from Nepal.

*Central, Grey Race (Æ. miles typica).*

<i>a, b.</i> ♂ ad. sk.	Nepal ( <i>B. H. Hodgson</i> ).	India Museum.
<i>c, d.</i> ♂ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.]. (Types of <i>Æ. miles</i> , Hodgs.)
<i>e, f.</i> ♂ ad.; <i>g.</i> ♂ imm. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
<i>h.</i> ♀ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
<i>i, k.</i> Juv. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
<i>l.</i> ♀ ad. sk.	Nepal.	Gould Collection.

*Western, Olive Race (Æ. goalpariensis).*

<i>a.</i> ♂ ad. sk.	Deyra Doon ( <i>Dr. Royle</i> ).	India Museum. (Type of <i>Æ. goalpariensis</i> .)
<i>b, c.</i> ♂ ♀ ad. sk.	Himalayas ( <i>Griffith</i> ).	India Museum.
<i>d.</i> ♂ ad. sk.	Kumaon ( <i>Strachey</i> ).	India Museum.
<i>e.</i> ♂ ad. sk.	Himalayas.	Gould Collection.
<i>f.</i> ♂ ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].

*Eastern, Olive Race* (*Æ. labecula*).

a. ♂ ad. sk.	Bhamo, Nov. 1880.	E. W. Oates, Esq.
b, c. ♂ ad. sk.	Sawaddy, Burmah, Jan. 1875.	Dr. J. Anderson [P.].
d. ♂ juv. sk.	Saigon, Cochin China.	M. E. Pierre [P.].
e. ♂ ad. sk.	Upper Assam.	R. B. Sharpe, Esq. [P.].
f. ♂ ad. sk.	Assam.	Gould Collection.
g. ♂ ad. sk.	Bhootan Doars, Feb. 1874 ( <i>Mandelli</i> ).	H. Seebohm, Esq. [P.].
h. ♂ ad. sk.	Darjeeling ( <i>R. Harrison</i> ).	H. Seebohm, Esq. [P.].

*Eastern var.* (*Æ. cara*).

a. ♂ ad. sk.	Moulmein.	E. W. Oates, Esq.
b. ♂ ad. sk.	S. Tenasserim, Dec. 25, 1876.	E. W. Oates, Esq.
c. ♂ juv. sk.	Tenasserim.	J. C. D. Packman, Esq. [P.].
d. ♀ ad. sk.	Sittang River, Burmah.	E. W. Oates, Esq. [C.].
e. ♂ ad. sk.	Rangoon, Oct. 1874.	E. W. Oates, Esq. [C.].

6. *Æthopyga siparaja*.

- Certhia siparaja*, *Raffles, Tr. Linn. Soc.* xiii. p. 299 (1820).  
*Cinnyris* —, *Vig. Mem. Raffles*, p. 673 (1830).  
*Nectarinia mystacalis* (pt.), *Blyth, J. A. S. B.* xi. p. 107 (1842);  
*Müll. & Schleg.* (pt.), *Natuurl. Gesch. Zool., Aves*, p. 54 (1876);  
*Low, Sarawak*, p. 410 (1848); *Pelzeln, Reise Novara, Vög.* p. 51  
(1865).  
*Nectarinia lathamii*, *Jard. Monogr. Sun-birds*, pp. 233, 268 (1842);  
*Blyth, J. A. S. B.* xii. p. 970 (1843); *Gray, Gen. B.* i. p. 98  
(1847).  
*Nectarinia siparaja*, *Jard. Monogr. Sun-birds*, pp. 235, 273 (1842);  
*Gray, Gen. B.* i. p. 98 (1847); *Blyth, Cat. B. Mus. As. Soc.* p. 223  
(1849); *Bp. C. A.* i. p. 405 (1850); *Scl. P. Z. S.* 1863, p. 220.  
*Nectarinia siparaja*, *Brügg. Abhand. Vcr. Bremen*, v. p. 458 (1877).  
*Æthopyga siparaja*, *Cab. Mus. Hein.* i. p. 103 (1850); *Horsf. &*  
*Moore, Cat. B. E.I. Co. Mus.* ii. p. 731 (1856); *Moore, P. Z. S.*  
1859, p. 461; *Walden, Ibis*, 1870, p. 33, 1872, p. 380, 1877,  
p. 301; *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 212 (1879);  
*Shelley, Monogr. Nect.* p. 57, pl. 19; *Sharpe, P. Z. S.* 1879, p. 342;  
*Hume, Str. F.* 1879, pp. 55, 89.  
*Æthopyga eupogon*, *Cab. Mus. Hein.* i. p. 103, note (1850);  
*Reichenb. Handb. Scans.* p. 304 (1854); *Salvad. Ibis*, 1865,  
p. 549; *id. Ann. Mus. Civ. Gen.* v. p. 174 (1874); *Walden, Ibis*,  
1876, p. 348.  
*Æthopyga chalcopogon*, *Reichenb. Handb. Scans.* p. 303, pl. 586.  
figs. 3982-83 (1854); *Walden, Ibis*, 1870, p. 34; *Salvad. Ann.*  
*Mus. Civ. Gen.* v. p. 176 (1874).  
*Promerops siparaja*, *Gray, Hand-l. B.* i. p. 109, no. 1339 (1869).  
*Promerops chalcopogon*, *Gray, Hand-l. B.* i. p. 110, no. 1351.  
*Promerops eupogon*, *Gray, Hand-l. B.* i. p. 110, no. 1352.  
*Æthopyga lathamii*, *Stoliczka, J. A. S. B.* xxxix. p. 298 (1870);  
*Walden, Ibis*, 1871, p. 166.

*Nicobar Race.*

*Æthopyga nicobarica*, *Hume, Str. F.* 1873, p. 412, 1874, pp. 80, 85, 101, 196; *Shelley, Monogr. Nect.* p. 61, pl. 20; *Hume, Str. F.* 1879, p. 89.

*Adult male.* Anterior half of crown black, metallic purplish blue, without any red near the base of the culmen; on each side of the upper throat a narrow metallic purplish-blue band; rest of head, neck, mantle, least wing-coverts, and chest rich crimson-red; the bases of the red centres of the feathers of the throat yellowish white; tail deep black, with the outer webs, like the upper tail-coverts, metallic purplish blue; feathers of centre of back very fluffy and long, uniform blackish grey and, in the ordinary position, completely concealing the bright yellow rump-feathers; quills, greater coverts, and edge of wing dark brown, externally slightly edged with olive; under wing-coverts pure white; lower breast, sides, flanks, abdomen, and under tail-coverts dark grey, more or less tinged with olive-brown; bill and feet dark brown. Culmen 0·65 inch, wing 1·95, tail 1·6-1·7, tarsus 0·52.

*Adult female.* Upper parts olive-green; wings and tail brown, the latter with pale tips; under wing-coverts white, edge of wing whitish yellow; rest of underparts olive-yellow; throat and chest washed with dull carmine-red. Wing 1·8 inch.

*Hab.* Malacca, Java, Sumatra, Borneo.

*Obs.* In the Nicobar Islands *Æ. siparaja* is represented by a race with a somewhat larger and stronger bill (*Æ. nicobarica*). Whilst the plumage of the male in every respect resembles that of *Æ. siparaja*, the female has the red-washed throat of *Æ. flavostriata*.

	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.
Ad. ♂ .....	0·76	2·0	1·85	0·55
♂ ( <i>Hume</i> ) .....	0·71-0·79	1·82-2·12	1·6-2·0	0·5-0·55
♀ ( <i>Hume</i> ) .....	0·61-0·64	1·82-1·9	1·25-1·6	0·5

*a. Æ. siparaja.*

<i>a.</i> ♂ ad. sk.	Java.	Gould Collection.
<i>b.</i> ♂ ad. sk.	Pulo Pinang.	F. D. Godman and O. Salvin, Esqrs.
<i>c.</i> ♂ ad. st.	Sumatra.	Purchased.
<i>d, e.</i> ♂ ad. sk.	Labuan ( <i>Low</i> ).	R. B. Sharpe, Esq.
<i>f, g.</i> ♂ juv.; <i>h.</i>	Labuan ( <i>Low</i> ).	R. B. Sharpe, Esq.
♀ ad. sk.		
<i>i, k.</i> ♂ ♀ ad. sk.	Simunjon, Sarawak ( <i>A. Everett</i> ).	Gould Collection.
<i>l.</i> ♂ ad. sk.	Sarawak.	A. R. Wallace, Esq. [C.].
<i>m, n.</i> ♂ ♀ ad. sk.	Banjermassing.	J. Motley, Esq. [C.].
<i>o.</i> ♂ ad. sk.	Borneo.	Purchased.

*β. Æ. nicobarica.*

<i>p.</i> ♂ ad. sk.	Nicobars, March 13, 1873.	A. O. Hume, Esq. [P.].
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7. *Æthopyga mystacalis*.

- Nectarinia mystacalis*, *Temm. Pl. Col.* 126. fig. 3 (1823); *Drapiez, Dict. Class.* xv. p. 513 (1829); *S. Müll. & Schl. Verh. Natuurl. Gesch., Aves*, p. 54, pl. 9. fig. 1 (1846).  
*Cinnyris mystacalis*, *Less. Man. d'Orn.* ii. p. 37 (1828); *id. Traité d'Orn.* i. p. 296, no. 22 (1831).  
 ? *Æthopyga siparaja*, *Reichenb. Handb. Scansoriae*, p. 301, no. 704, pl. 584. figs. 3971-72 (1854).  
*Æthopyga mystacalis*, *Licht. Nomencl. Ar.* p. 56 (1854); *Shelley, Monogr. Nect.* p. 49, pl. 16. fig. 2.  
*Æthopyga lodoisiæ*, *Salvad. Ibis*, 1865, p. 548; *id. Ibis*, 1871, p. 248.  
*Promerops siparaja* (pt.), *Gray, Hand-l. B.* i. p. 109, no. 1339 (1869).

Closely allied to *Æ. siparaja*, from which it differs in the following points:—(1) a few feathers near the base of the culmen are red; (2) the feathers of the throat and chest have the shafts light yellow, which gives these parts of the body a yellow-striped appearance, particularly along the middle of the upper throat; (3) the basal halves of these feathers are blackish; (4) the under wing-coverts and sides of breast are white, the lower breast and abdomen dark grey, paling into yellowish towards the under tail-coverts; (5) the central pair of tail-feathers project. Culmen 0.65 inch, wing 1.95, tail 1.6 [2.2-2.4], tarsus 0.55.

*Obs.* In *Æ. temmincki* and in *Æ. mystacalis* the basal halves of the red feathers of the throat and breast are grey or blackish; in *Æ. siparaja* they are yellowish white. Some of the long feathers of the sides of the back are dark brown or grey, and are able to conceal the bright rump-feathers. This applies to most of the species of this group.

*Hab.* Java.

<i>a, b.</i> ♂ ♀ ad. sk.	Java.	Gould Collection.
<i>c.</i> ♂ ad. sk.	W. Java.	A. R. Wallace, Esq. [C.]

8. *Æthopyga flavostriata*.

- Nectarinia flavostriata*, *Wallace, P. Z. S.* 1865, p. 478, pl. 19. fig. 2 : *Brügg. Abhandl. nat. Ver. Bremen*, v. p. 73 (1876)  
*Promerops flavostriata*, *Gray, Hand-l. B.* i. p. 110, no. 1349, part. (1869).  
*Æthopyga flavostriata*, *Walden, Ibis*, 1870, p. 35; *id. Trans. Z. S.* viii. p. 71 (1874); *Salvad. Ann. Mus. Civic. Gen.* vii. p. 659 (1875).  
*Nectarophila*, sp. ?, *Walden, Ibis*, 1870, p. 42, no. 30.  
*Nectarinia*, sp. ?, *Walden, Trans. Z. S.* viii. p. 71 (1874).  
*Æthopyga beccarii*, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 659 (1875).  
*Æthopyga*, sp. ?, *Salvad. Ibis*, 1865, p. 549; *id. Atti R. Acc. Torino*, xii. p. 314 (1877); *Meyer, Ibis*, 1879, p. 132; *Shelley, Monogr. Nect.* p. 53, pl. 18.  
*Æthopyga beccarii*, *Salvad. Atti R. Acc. Torino*, xii. p. 315 (1877).

*Adult male.* Tail rounded; the yellow of the throat and for

neck predominant over the carmine, this latter colour being restricted to the edges and tips of the feathers; rest of underparts, including sides of breast, uniform greyish black, with an olive tinge; under wing-coverts white; axillaries pale yellowish; most of the red feathers of the upper parts having a fine transverse yellow line between the red terminal third and the blackish remainder of the feathers; the bright yellow of the back occupying nearly half of the back; greater wing-coverts and quills black, externally edged with dark red; tail black; outer webs of tail-feathers and tail-coverts metallic purple-blue. Culmen 0·75 inch, wing 2·1, tail 1·7, tarsus 0·55.

*Adult female.* Upper parts olive-green: underparts olive yellowish green; wings and tail dark brown; outer web strongly washed with red. Wing 2 inches.

*Immature male.* Outer webs of tail-feathers, except the central pair, strongly washed with red; centre of breast mottled with a few pale yellowish feathers, which are the remains of the female and young plumage. In the British Museum is an immature male, from Menado, in moulting state: the crimson-red has appeared on the mantle, nape, and chest; the tail is coloured like that of the other immature male; rump yellow; rest of plumage a combination of that of the adult female and adult male.

*Hab.* Celebes.

a. ♂ ad. sk.	Menado.	A. R. Wallace, Esq. [C.] (Type of species.)
b. ♂ ad. sk.	Celebes.	A. R. Wallace, Esq. [C.]
c, d. ♂ ♀ ad. sk.	Menado.	A. R. Wallace, Esq. [C.]
e. ♂ imm. sk.	Menado.	A. R. Wallace, Esq. [C.]
f. ♂ ad. sk.	Menado (Wallace).	Gould Collection.

### 9. *Æthopyga magnifica*.

*Æthopyga magnifica*, Sharpe, *Nature*, 3rd August, 1876, p. 297; *id.* *Trans. Linn. Soc.*, 2nd ser. Zool. i. p. 342 (1876); *Tweedd. P. Z. S.* 1877, p. 763, 1878, p. 287; *Shelley, Monogr. Nect.* p. 51, pl. 17.

Larger and more intensely coloured than *Æ. flavostriata*. The underparts, including the under wing-coverts and the edge of the wings, with the exception of the brilliant crimson-red coloured parts, are uniform sooty black, without an olive tinge; wings and greater coverts entirely black, without the outer web being edged with dark red, inner web with faintly pale edges; the yellow in the red feathers of the upper parts is scarcely perceptible; on the throat it is confined to the basal parts, and is almost completely concealed when the feathers are in their natural position; some of the yellow feathers of the lower back are washed with carmine-red. The fluffy feathers of the sides of the back are very well developed and are quite black: they conceal the greater part of the lower back and rump. Culmen 0·9 inch, wing 2·3, tail 1·9, tarsus 0·6. Tail rounded.



*Female.* Resembling that of *Æ. flavostriata*. Wing 2·2 inches, tail 1·7. (*Shelley*.)

*Hab.* Island of Negros in the Philippine archipelago.

*a, b.* ♂ ad. sk.

Negros.

Prof. Steere [C.].

### 10. Æthopyga ignicauda.

*Cinnyris ignicauda*, *Hodgs. Ind. Rev.* ii. p. 273 (1837); *id in Gray's Zool. Misc.* 1844, p. 82; *Hodgs. J. A. S. B.* xxiv. p. 575 (1855).

*Cinnyris rubricaudata*, *Blyth, J. A. S. B.* xi. p. 192 (1842).

*Nectarinia phoeniceura*, *Jard. Monogr. Sun-birds*, pp. 242, 270, pl. 29 (1842).

*Nectarinia ignicauda*, *Blyth, J. A. S. B.* xii. p. 972 (1843); *Gray, Cat. Mamm. & Birds Nepal pres. Hodgs.* p. 59 (1846); *id. Gen. B.* i. p. 98 (1847); *Blyth, Cat. B. Mus. As. Soc.* p. 223, no. 1354 (1849); *Bp. C. A. i.* p. 405, no. 11 (1850); *Gould, B. Asia*, pt. 2, pl. 24 (1850).

*Cinnyris epimacurus*, *Hodgs. in Gray's Zool. Misc.* 1844, p. 82; *id. J. A. S. B.* xxiv. p. 575 (1855).

*Æthopyga ignicauda*, *Cab. Mus. Hein.* i. p. 103, note (1850); *Reichenb. Handb. Scansoria*, p. 302, no. 705, pl. 585, figs. 3973-75 (1854); *Horsf. & Moore, Cat. B. E.I. Co. Mus.* ii. p. 734 (1856); *Jerd. B. Ind.* i. p. 365 (1862); *Walden, Ibis*, 1870, p. 36; *Jerd. Ibis*, 1872, p. 17; *Shelley, Monogr. Nect.* p. 45, pl. 15.

*Promerops ignicauda*, *Gray, Hand-l. B.* i. p. 110, no. 1344 (1869).

*Adult male.* Cheeks and ear-coverts sooty black; metallic colours confined to the crown and throat, which are shining blue and purple; hinder part of supercilium, nape, sides and hinder part of neck, centre of mantle and of back, upper tail-coverts, central tail-feathers and outer webs of the rest bright scarlet; lower back yellow; wings and wing-coverts brown; scapulars and outer webs of quills washed with olive; chest bright yellow, strongly washed with scarlet on the centre; rest of underparts yellow, slightly tinged with greenish; bill and feet black. Culmen 0·75-0·9 inch, tail 2·8 [4·8], wing 2·2, tarsus 0·63.

*Adult female.* Upper parts olive-green, inclining to brownish on the nape and crown, and to yellow on the rump; tail brown, washed with rufous, and with paler tips; fore neck, sides of neck, and head dull olive-grey; rest of underparts olive-yellow, brightest on the centre of the breast. Wing 2·1 inches.

*Young male.* Lower back bright yellow; upper tail-coverts, part of rump, and outer web of central tail-feathers bright scarlet, these feathers being scarcely longer than the rest.

*Hab.* Nepal and Assam.

<i>a.</i> ♂ ad. st.	Nepal.	B. H. Hodgson, Esq. [P.].
<i>b.</i> ♂ juv. st.	Nepal.	B. H. Hodgson, Esq. [P.].
<i>c, d.</i> ♂ ad. sk.	Nepal ( <i>B. H. Hodgson</i> ).	India Museum. (Types
<i>e, f.</i> ♂ juv. sk.	Nepal ( <i>B. H. Hodgson</i> ).	of species.)
<i>g.</i> Juv. sk.	Nepal ( <i>B. H. Hodgson</i> ).	(Type of <i>C. epimacurus</i> .)

<i>h.</i> ♂ ad.; <i>i, k, l.</i>	Nepal ( <i>B. H. Hodgson</i> ).	India Museum.
♀ ad.; <i>m.</i> ♂ juv.		
<i>n.</i> ♂ juv. sk.	Darjeeling ( <i>Pearson</i> ).	India Museum.
<i>o, p.</i> ♂ ♀ ad. sk.	Sikkim.	H. Seebohm, Esq. [P.].
<i>q.</i> ♂ ad. sk.	Nagthull, June 12, 1876.	H. Seebohm, Esq. [P.].
<i>r.</i> ♀ ad. sk.	Butan ( <i>Pemberton</i> ).	India Museum.

### 11. *Æthopyga nipalensis*.

- Cinnyris nipalensis*, *Hodgs. Ind. Rev.* ii. p. 273 (1837); *Blyth, J. A. S. B.* xi. p. 92 (1842); *Hodgs. in Gray's Zool. Misc.* 1844, p. 82.
- Nectarinia nipalensis*, *Jard. Monogr. Sun-birds*, pp. 236 & 268, pl. 27 (1842); *Blyth, J. A. S. B.* xii. p. 974 (1843); *Gray, Gen. B.* i. p. 98 (1847); *Blyth, Cat. B. Mus. As. Soc.* p. 224 (1849); *Gould, B. Asia*, pl. 27 (1850); *Bp. C. A. i.* p. 405 (1850).
- Æthopyga nipalensis*, *Cub. Mus. Hein.* i. p. 103 (1850); *Reichenb. Handb. Scans.* p. 302, pl. 585, figs. 3976-3978 (1854); *Horsf. & Moore, Cat. B. E.I. Co. Mus.* ii. p. 785 (1856); *Jerd. B. Ind.* i. p. 366 (1862); *id. Ibis*, 1872, p. 17; *Walden, Ibis*, 1870, p. 35; *Hume, Nests and Eggs Ind. B.* p. 147 (1873).
- Promerops nipalensis*, *Gray, Hand-l. B.* i. p. 109, no. 1341 (1869).
- Cinnyris horsfieldi*, *Blyth, J. A. S. B.* xi. p. 107 (1842).
- Nectarinia horsfieldi*, *Blyth, J. A. S. B.* xii. p. 975 (1843), xvi. p. 472 (1847); *Gray, Gen. B.* i. p. 98 (1847); *Blyth, Cat. B. Mus. As. Soc.* p. 224 (1845); *Bp. C. A. i.* p. 405 (1850).
- Æthopyga horsfieldii*, *Reichenb. Handb. Scans.* p. 304 (1854); *Jerd. B. Ind.* i. p. 367 (1862); *Walden, Ibis*, 1870, p. 36; *Shelley, Monogr. Nect.* p. 33, pl. 10, fig. 2.
- Promerops horsfieldii*, *Gray, Hand-l. B.* i. p. 109, no. 1342 (1869).

*Adult male.* Crown, nape and hind neck, upper half of throat, upper tail-coverts, and greater part of the central tail-feathers metallic black—in position B dark green, in C purple-blue; rest of tail black, outer pairs of feathers with pale tips; mantle and sides of neck deep red; wing-coverts, outer web of quills, and centre of back olive-yellowish; quills dark brown; lower back and rump bright yellow; under wing-coverts and edge of inner web of quills white; rest of underparts bright yellow; feathers of chest strongly washed with scarlet or orange-red, giving these parts a somewhat mottled appearance; abdomen and flanks tinged with olive; bill black; iris and feet dark brown.

The types measure:—

	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.
♂ . . . . .	0·8	2·1	2·5	0·6
♂ . . . . .	0·9	2·1	2·5	0·6
♂ . . . . .	0·8	2·25	2·8	0·62

*Adult female.* Above dull olive-green; crown tinged with greyish; edges of tail-feathers more yellow; rump pale olive-green; chin and throat greyish, passing into olive-yellowish on the chest, and becoming still paler and more yellowish on the flanks and abdomen; under tail-coverts deep yellow; under wing-coverts and inner

margins of quills white; tail largely tipped with whitish. Wing 1·8–2 inches.

*Hab.* Eastern half of the Himalayas, from Nepal to the Khasia hills.

*Obs.* In Western Nepal and Gurwal this species is represented by a race which differs from typical *A. nipalensis* only by the absence of the deep red colour of the mantle, which is olive like the rest of the back. However, the deep red is still visible on the sides of the lower neck, and between the metallic parts of the hind neck and the mantle (*Æ. horsfieldi*).

*Æ. nipalensis* typica.

<i>a, b, c.</i> ♂ ad. sk.	Nepal ( <i>B. H. Hodgson</i> ).	India Museum.
<i>d-h.</i> ♀ ad. sk.	Nepal ( <i>B. H. Hodgson</i> ).	India Museum.
<i>i, k.</i> ♂ ♀ ad. ;	Nepal.	B. H. Hodgson, Esq. [P.]
<i>l.</i> ♂ juv. sk.		(Types of species.)
<i>m, n.</i> ♂ ♀ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.]
<i>o, p, q.</i> ♂, <i>r.</i> ♀ ad. sk.	Sikhim.	H. Seebohm, Esq. [P.]
<i>s, t.</i> ♂ ♀ ad. sk.	Khasia hills ( <i>Jerdon</i> ).	Gould Collection.

*Æ. nipalensis*, var. *horsfieldi*.

<i>a, b.</i> ♂ ♀ ad. sk.	Khatee, May 16, 1875.	H. Seebohm, Esq. [P.]
<i>c, d.</i> ♂ ad. sk.	Kumaon.	H. Seebohm, Esq. [P.]
<i>e.</i> ♂ juv. sk.	Sikhim.	H. Seebohm, Esq. [P.]
<i>f.</i> ♂ ad. sk.	Nepal.	Gould Collection.
<i>g.</i> ♂ ad. sk.	Nepal.	Purchased.
<i>h.</i> ♂ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.]

12. *Æthopyga sanguinepectus*.

*Æthopyga sanguinepectus*, *Walden, Ann. & Mag. N. H.* 1875, xv. p. 400; *Hume, Str. F.* 1875, p. 402; *id. & Davis, Str. F.* 1878, p. 182; *Hume, Str. F.* 1879, p. 89; *Shelley, Monogr. Nect.* p. 37, pl. 12; *Oates, B. Brit. Burm.* i. p. 313 (1883).  
*Æthopyga waldeni*, *Hume, Str. F.* 1877, p. 51.

*Adult male.* Closely allied to *Æ. nipalensis*, from which this species differs by a black band between the metallic parts of the fore neck and the yellow of the chest; the deep red of the mantle extends further down the back at the expense of the bright yellow of the rump, which colour, as in *Æ. saturata*, is confined to a narrow band. Culmen 0·7 inch, wing 2·2, tail 3·2, tarsus 0·6. (*Shelley*.)

The *female* seems to resemble that of *Æ. nipalensis*, but very probably has a pale yellowish band across the rump.

*Hab.* Hills of Karen-nee in Burmah, extending to Mooleyit in Tenasserim.

13. *Æthopyga gouldiæ*.

*Cinuyris gouldiæ*, *Vigors, P. Z. S.* 1831, p. 44; *Gould, Cent. Him.* B. pl. 56 (1832); *Blyth, J. A. S. B.* xi. p. 192, no. 52 (1842).  
*Nectarinia gouldiæ*, *Jard. Monogr. Sun-birds*, pp. 233, 269 (1842); *Blyth, J. A. S. B.* xii. p. 974 (1843); *Gray, Gen. B.* i. p. 98 (1847); *Blyth, Cat. B. Mus. As. Soc.* p. 223, no. 1353 (1849); *Bp. C. A.* i. p. 405, no. 10 (1850); *Gould, B. Asia*, pt. 21, pl. 6 (1867).

*Æthopyga gouldiæ*, *Cab. Mus. Hein.* i. p. 103 (1850); *Reichb. Handb. Scansoriae*, p. 300, no. 701, pl. 583. figs. 3965-66 (1854); *Horsf. & Moore, Cat. B. E.I. Co. Mus.* ii. p. 733, no. 1068 (1856); *Jerd. B. Ind.* i. p. 364 (1862); *Beavan, Ibis*, 1869, p. 419; *Walden, Ibis*, 1870, p. 35; *Jerd. Ibis*, 1872, p. 16; *Blyth, B. Burmah*, p. 141 (1875); *Shelley, Monogr. Nect.* p. 41, pl. 14; *Oates, B. Brit. Burm.* i. p. 315 (1883).

*Promerops gouldiæ*, *Gray, Hand-l. B.* i. p. 110, no. 1346 (1869).

♀ *Cinnyris subflavus*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 494 (1819); *Less. Man. d'Orn.* ii. p. 35 (1828).

♀ *Nectarinia subflava*, *Drapiez, Dict. Class.* xv. p. 509 (1829).

*Cinnyris gouldiæ*, *Warlow, J. A. S. B.* i. p. 320 (1832).

*Nectarinia gouldiæ*, *Schl. Handl. Dierk.* p. 256 (1857).

*Adult male.* In general appearance very similar to *Æ. nipalensis*; but the red colour is a shining blood-red, and occupies the whole mantle, centre of back, scapulars, least wing-coverts, hind neck, and sides of neck and the nape, also the sides of the head, including the superciliary region; in position B and C the following parts are metallic purple-blue, not greenish as in *Æ. nipalensis*, viz. the crown, part of the ear-coverts, a few feathers forming a small patch on the sides of the lower neck, the upper throat, upper tail-coverts, and central tail-feathers; rest of tail blackish, with large white tips; wings and greater coverts dark brown, externally washed with olive; lower back and rump and underparts, except the throat, bright yellow; breast slightly mottled with red; under wing-coverts and inner edge of quills white; bill and feet brownish black; iris reddish brown. Culmen 0.65 inch, wing 2.2, tail 3.1, tarsus 0.53.

*Adult female.* Coloured like the female of *Æ. nipalensis*, but with the yellow rump of *Æ. saturata*.

*Hab.* Himalayas, through Assam to Arrakan.

a. ♂ ad. st.	Himalayas.	Purchased.
b, c. ♂ ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
d. ♂ ad. sk.	Simla.	Gould Collection.
e, f. ♂ ad. sk.	Khatee, May and June 1875.	H. Seebohm, Esq. [P.].
g. ♂ ad. sk.	Kumaon ( <i>Capt. Strachey</i> ).	India Museum.
h. ♂ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
i. ♂ ad. sk.	Sikhim.	H. Seebohm, Esq. [P.].

#### 14. *Æthopyga dabryi*.

*Nectarinia dabryi*, *J. Verr. Rev. et Mag. Zool.* 1867, p. 173, pl. 15.

*Promerops dabryi*, *Gray, Hand-l. B.* i. p. 110, no. 1350 (1869).

*Æthopyga dabryi*, *Walden, Ibis*, 1870, p. 35.

*Æthopyga debrii*, *Selat. Ibis*, 1870, p. 296; *Walden, Ibis*, 1875, p. 463.

*Æthopyga abrii*, *Swink. P. Z. S.* 1871, p. 349.

*Æthopyga dabryi*, *David & Oust. Ois. Chine*, p. 80, pl. 11 (1877);

*Anders. Zool. Exped. Yunnan, Aves*, p. 663; *Hume & Davis. Str.*

*F.* 1878, p. 180; *Shelley, Monogr. Nect.* p. 39, pl. 13; *Hume, Str.*

*F.* 1879, p. 89; *Oates, B. Brit. Burm.* i. p. 314.

*Adult male.* Lower part of fore neck and chest brilliant scarlet;

rest of breast and flanks bright yellow, washed with olive on the abdomen, flanks, and under tail-coverts. In all the other parts exactly like *Æ. gouldiae*.

*Female*. Like that of *Æ. gouldiae*, but, to judge from the drawing in Capt. Shelley's 'Monograph,' paler in general appearance.

*Hab.* Western China and Burmah.

a. ♂ ad. sk.      Sheete hills, Kachyin range,      Dr. J. Anderson [C].  
Feb. 20, 1875.

### 15. *Æthopyga shelleyi*.

*Æthopyga shelleyi*, *Sharpe, Nature*, 3rd August, 1876, p. 297; *id. Tr. Linn. Soc.* 2nd ser. *Zool.* i. p. 343; *Tweedd. P. Z. S.* 1878, p. 621; *Shelley, Monogr. Nect.* p. 75, pls. 24 & 29, fig. 1.

*Adult male*. Crown, long moustachial stripe, upper tail-coverts, and central pair of tail-feathers, with the outer webs of the rest, metallic—brilliant bluish green in position B, dark blue in position C; sides of head, neck, and centre of mantle dark red, each feather with a narrow yellowish cross band between the red and the blackish base; wing-coverts, scapulars, and upper back olive-green; wings dark brown, edged with olive; tail black; lower back pale sulphur-yellow; the metallic moustachial stripe is separated on each side from the yellow of the throat by a crimson-red stripe, beginning at the chin; underparts bright yellow, richest and mottled with red on the throat, fore neck, and chest, paling into white on the under wing-coverts and sides of the breast.

*Female* unknown.

	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.
♂ . . . . .	0·64	1·8	?	0·53
♂ . . . . .	0·72	1·96	1·8*	0·6

*Hab.* Island of Palawan, Philippines.

a, b. ♂ ad. sk.      Palawan.      Prof. Steere [C].

### 16. *Æthopyga bella*.

*Æthopyga bella*, *Tweeddale, Ann. & Mag. Nat. Hist.* xx. p. 537 (1877); *id. P. Z. S.* 1877, pp. 819, 829; *Shelley, Monogr. Nect.* p. 77, pl. 25.

Closely allied to *Æ. shelleyi*; but the nape is olive-brown, the metallic parts of the crown and moustache are of a more pronounced green; a metallic purple-blue patch on the ear-coverts; lower breast, abdomen, &c. white instead of yellow. Culmen 0·55 inch, wing 1·6, tail 1·2, tarsus 0·5. The central pair of tail-feathers tapering out and a little longer than rest of the tail. (*Shelley*.)

*Female*. Above olive, lower back and rump yellow; underparts pale olive-yellow; sides inclining to white. Wing 1·55 inch.

*Hab.* Surigao, off the north coast of Mindanao.

\* Central pair of feathers scarcely longer than rest.

17. *Æthopyga christinæ*.

*Æthopyga christinæ*, *Swinhoe, Ann. & Mag. Nat. Hist.* iv. p. 436 (1869); *Walden, Ibis*, 1870, p. 36, pl. 1. fig. 1; *Swinhoe, tom. cit.* p. 236; *id. P. Z. S.* 1871, p. 349; *David & Oust. Ois. Chine*, p. 81. *Urodrepanis christinæ*, *Shelley, Monogr. Nect.* p. 79, pl. 25.

The two central tail-feathers abruptly narrowing into fine points and projecting considerably beyond the rest of the tail, which is graduated. Closely allied through its pattern of colour to *Æthopyga eximia*, and through the form of its tail to *Æ. bella*. Crown and nape dark metallic green, in position C with as light coppery-red gloss on some of the feathers; upper tail-coverts and central pair of tail-feathers brilliant metallic green in position B, purplish blue in position C; centre of mantle, sides of neck, and head black; lower back, wing-coverts, and outer edges of the dark-brown quills olive-brown; rump and lower back bright yellow, often wholly concealed by the long fluffy feathers of the centre and sides of the back; rest of tail-feathers black, the outer pairs with white tips; centre of throat and fore neck dark blood-red; a long metallic bluish-green moustachial stripe; breast olive, passing into pale yellowish and white on the abdomen and under tail-coverts; under wing-coverts and inner edge of quills pure white. Culmen 0·7 inch, wing 2·06, tail 1·3 [1·8], tarsus 0·55.

*Female* unknown.

*Hab.* Hainan.

a. ♂ ad. sk. Hainan, February 1868. Consul Swinhoe [C.].

18. *Æthopyga duyvenbodei*.

*Nectarinia duyvenbodei*, *Schl. Ned. Tijdschr. Dierk.* iv. p. 14 (1871); *Meyer, Sitzb. k. Ak. Wissensch. Wien*, lxx. p. 125 (1874).

*Æthopyga? duyvenbodei*, *Salvad. Ann. Mus. Civic. Genova*, ix. p. 57 (1876).

*Æthopyga duyvenbodei*, *Salvad. Atti R. Acc. Torino*, xii. p. 316 (1877).

*Eudrepanis duyvenbodei*, *Shelley, Monogr. Nect.* p. 81, pl. 27.

This bird is a true *Æthopyga* in its pattern of coloration, but is slightly aberrant in its rounded tail. The metallic colours are confined to the top of the crown, which is emerald-green, and to all the upper wing- and tail-coverts; tail-coverts rich violet; wing-coverts "deep metallic bronzy green;" nape and sides of head deep blood-red; tail-feathers black, the outer pairs with white tips; wings dark brown; all the underparts of the body rich gamboge-yellow; "on the crop a few of the feathers have indications of narrow orange-red bars" (*Shelley*). Culmen 0·7 inch, wing 2·25, tail 1·55, tarsus 0·65.

*Adult female.* All the upper parts and sides of the head are olive-yellow: tail blackish, with white tips; underparts gamboge-yellow, inclining to olive on the sides. Wing 2 inches.

*Hab.* Sanghir Islands.

19. *Æthopyga pulcherrima*.

*Æthopyga pulcherrima*, *Sharpe, Nature*, 3rd August, 1876, p. 297.

*Eudrepanis pulcherrima*, *Shelley, Monogr. Nect.* p. 83, pl. 28.

*Æthopyga dubia*, *Tweeddale, P. Z. S.* 1878, p. 112.

*Eudrepanis dubia*, *Shelley, Monogr. Nect.* p. 85, pl. 29. fig. 2.

*Adult male.* General colour above dark olive; forehead, cheeks, and ear-coverts metallic blue; all the wing-coverts, upper tail-coverts, and tail-feathers metallic blue and green; the tail tipped with white; rump and all the underparts bright yellow, the feathers on the middle of the fore neck edged with red. Culmen 0·75 inch, wing 1·8, tail 1·05, tarsus 0·55.

*Female.* Without any metallic colours; upper parts olive, inclining to ashy brown on the crown and sides of the head; tail dark brown, washed with olive, tipped with white; under wing-coverts and inner edge of quills white; rest of underparts dingy yellowish. Wing 1·80 inch, tail 1, tarsus 0·55.

*Immature male. (Eudrepanis dubia.)* Like the female, but the rump yellow and the tail-feathers strongly metallic green.

*Hab.* Islands of Dinagat and Basilan, Philippine archipelago.

## 6. CINNYRIS.

	Type.
<i>Cinnyris</i> , <i>Cuv. Règne Anim.</i> i. p. 412 (1817) . . . . .	<i>C. splendida</i> .
<i>Leptocoma</i> , <i>Cab. Mus. Hein.</i> i. p. 104 (1850) . . . . .	<i>C. hasselti</i> .
<i>Cyrtostomus</i> , <i>Cab. tom. cit.</i> p. 105 . . . . .	<i>C. jugularis</i> .
<i>Arachnechthra</i> , <i>Cab. tom. cit.</i> p. 105 . . . . .	<i>C. lotenia</i> .
<i>Chalcomitra</i> , <i>Reichb. Handb. Scansorie</i> , p. 277 (1854)	<i>C. amethystina</i> .
<i>Nectarophila</i> , <i>Reichb. tom. cit.</i> p. 280 . . . . .	<i>C. hasselti</i> .
<i>Chromatophora</i> , <i>Reichb. tom. cit.</i> p. 283 . . . . .	<i>C. superba</i> .
<i>Aidemonia</i> , <i>Reichb. tom. cit.</i> p. 284 . . . . .	<i>C. cuprea</i> .
<i>Angaladiana</i> , <i>Reichb. tom. cit.</i> p. 285 . . . . .	<i>C. notata</i> .
<i>Hermotimia</i> , <i>Reichb. tom. cit.</i> p. 285 . . . . .	<i>C. aspasiæ</i> .
<i>Cyanomitra</i> , <i>Reichb. tom. cit.</i> p. 291 . . . . .	<i>C. verticalis</i> ♂.
<i>Elæocerthia</i> , <i>Reichb. tom. cit.</i> p. 291 . . . . .	<i>C. verreauxi</i> .
<i>Carmelita</i> , <i>Reichb. tom. cit.</i> p. 296 . . . . .	<i>C. fuliginosa</i> .
<i>Leucochloridia</i> , <i>Reichb. tom. cit.</i> p. 312 . . . . .	<i>C. verticalis</i> ♀.
<i>Adelinus</i> , <i>Bp. Compt. Rend.</i> 1854, p. 265 . . . . .	<i>C. verreauxi</i> .

Bill much longer than rest of the head, strongly curved and very much pointed; culmen ridged. Nostrils basal, operculated, longitudinal, exposed. Neither rictal nor nasal bristles. First primary short; tip of wing formed by third, fourth, and fifth primaries. Tail shorter than wing, square, rounded or slightly graduated. Tarsus anteriorly covered with transverse scales. Some specimens with pectoral tufts. No loose and fluffy feathers on the back. Plumage of male containing always some metallic colour.

*Range.* African and Malayan.

The species of the genus *Cinnyris* may, according to Capt. Shelley, conveniently be divided into five groups:—

A. Mantle, head, and neck all round metallic. Nares bare.

I. Underparts brightly coloured; chest always differently coloured from breast. Pectoral tufts always present.—Ethiopian.

- II. Underparts (abdomen and lower breast) black or very dark sooty brown. Dark birds. Tufts varying.—Ethiopian and Indian.
- B. Mantle non-metallic.
- III. *a.* Nares feathered. No tufts.—Malayan.  
*b.* Nares bare. Tufts often present.
- IV. Greater part of upper parts olive. Tufts always present. Metallic colours, if present, restricted to throat or crown.—Ethiopian and Indo-Malayan.
- V. General colour above and below chocolate- or black-brown. Metallic colours on throat, crown, bend of wing, and upper tail-coverts. Tufts only in *C. fuliginosa*.—Ethiopian.

*Key to the Species.*

I.

- a.* Lower back and rump rich metallic.
- a'*. Chest bright red; breast olive-yellow or ashy grey.
- a''*. Upper tail-coverts metallic green . . . . . *chloropygia*, p. 34.
- b''*. Upper tail-coverts blue . . . . .  $\left\{ \begin{array}{l} \textit{afra}, \text{ p. 35.} \\ \textit{chalybea}, \text{ p. 37.} \\ \textit{erikssoni}, \text{ p. 38.} \end{array} \right.$
- b'*. Centre of upper breast bright orange-red; chest uniform with throat . . . . . *coquereli*, p. 39.
- c'*. Chest metallic blue, bordered with sooty feathers.
- c''*. Breast bright yellow . . . . .  $\left\{ \begin{array}{l} \textit{venusta}, \text{ p. 39.} \\ \textit{affinis}, \text{ p. 41.} \end{array} \right.$
- d''*. Breast and abdomen white.
- a'''*. Feathers of chest uniform metallic blue . .  $\left\{ \begin{array}{l} \textit{leucogaster}, \text{ p. 41.} \\ \textit{albiventris}, \text{ p. 42.} \end{array} \right.$
- b'''*. Blue feathers of chest tipped with maroon-red. . . . . *oustaleti*, p. 43.
- b.* Lower back and rump non-metallic, olive; centre of upper breast sooty black; maroon band across the chest . . . . . *souimanga*, p. 43.

II.

- a.* Mantle and back rich metallic, green.
- a'*. Across the chest a narrow maroon collar.
- a''*. No tufts . . . . .  $\left\{ \begin{array}{l} \textit{mariguensis}, \text{ p. 44.} \\ \textit{bifasciata}, \text{ p. 47.} \end{array} \right.$
- b''*. Tufts present . . . . . *comorensis*, p. 48.
- b'*. Whole breast red; crown green.
- c''*. Tufts . . . . . *johanna*, p. 49.
- d''*. No tufts . . . . . *superba*, p. 48.
- c'*. Chest red; breast black. Tufts. Crown blue.
- e''*. Throat green . . . . . *habessinica*, p. 52.
- f''*. Throat purple-blue . . . . . *splendida*, p. 50.
- d'*. Chest blue; no red whatever in plumage. Tufts. Abdomen sooty greyish black . . . . .  $\left\{ \begin{array}{l} \textit{osea}, \text{ p. 53.} \\ \textit{bouvieri}, \text{ p. 53.} \end{array} \right.$
- b.* No tufts. Whole bird black in position A.
- e'*. In position B, green metallic . . . . . *notata*, p. 54.
- f'*. In position B, coppery red . . . . . *cuprea*, p. 55.
- c.* Mantle and back dark blue, metallic. Bright pectoral tufts.
- g'*. Underparts velvet blue-black. Bill short. . . . .  $\left\{ \begin{array}{l} \textit{asiatica}, \text{ p. 56.} \\ \textit{brevirostris}, \text{ p. 59.} \end{array} \right.$
- h'*. Underparts (breast and abdomen) ashy brown. Bill very long . . . . . *lotenia*, p. 60.



III.

- a. Breast red, yellow, or white; mantle dark blood-red.
  - a'. Breast yellow or white.
    - a<sup>ii</sup>. Chest and breast bright yellow.
      - a<sup>iii</sup>. Rump and tail-coverts metallic green . . . *juliæ*, p. 64.
      - b<sup>iii</sup>. Rump and tail-coverts metallic purple . . . *zeylonica*, p. 64.
    - b<sup>ii</sup>. Chest red; breast and abdomen silky white. . . *minima*, p. 62.
  - b'. Breast red.
    - c<sup>ii</sup>. Chest and breast bright red; abdomen brownish yellow. . . . . *sperata*, p. 63.
    - d<sup>ii</sup>. Chest and upper breast very dark blood-red; rest of breast and abdomen black . . . . . *grayi*, p. 66.
- b. Breast, chest, and mantle velvet-black.
  - c'. Breast and chest dark red . . . . . *hasselti*, p. 67.
  - d'. Whole bird black in position A. [races, p. 68.]
    - e<sup>ii</sup>. Throat metallic blue or purple . . . . . *aspusicæ* and allied
    - f<sup>ii</sup>. Throat metallic green . . . . . *theresæ*, p. 74.
    - g<sup>ii</sup>. Centre of throat coppery bronze-colour . . . . . *sangirensis*, p. 74.

IV.

- a. Plumage with a submetallic gloss; bright orange-red tufts.
  - a'. Underparts uniform pale grey . . . . . { *verreauxi*, p. 74.  
*fischeri*, p. 75.
  - b'. Abdomen white; fore neck blackish . . . . . *fusca*, p. 75.
- b. Plumage without any metallic gloss.
  - c'. Upper parts brown; underparts white, mottled. . . *balfouri*, p. 76.
  - d'. Upper parts dark olive-green.
    - a<sup>ii</sup>. Underparts paler . . . . . *obscura*, p. 77.
    - b<sup>ii</sup>. Underparts darker . . . . . { *olivacea*, p. 78.  
*olivacina*, p. 78.
- c. Metallic colours found only on the throat, and (often) on the crown.
  - e'. Breast and abdomen grey or yellowish.
    - c<sup>ii</sup>. Fore neck and throat only metallic.
      - a<sup>iii</sup>. Rest of underparts grey.
        - a<sup>iv</sup>. Yellow tufts . . . . . *cyanolema*, p. 78.
        - b<sup>iv</sup>. Orange tufts . . . . . *dussumieri*, p. 79.
        - b<sup>v</sup>. Rest of underparts yellowish. . . . . *hartlaubi*, p. 79.
      - d<sup>ii</sup>. Entire crown metallic blue . . . . . { *verticalis*, p. 80.  
*reichenbachi*, p. 81.
  - f'. Breast and abdomen bright yellow or orange.
    - e<sup>iii</sup>. Whole breast strongly washed with orange-red . . . . . *solaris*, p. 82.
    - f<sup>ii</sup>. Whole breast bright yellow.
      - c<sup>iii</sup>. Forehead without metallic colour. [p. 83.]
        - c<sup>iv</sup>. Narrow maroon-red feathers bordering the chest . . . . . { *flammaxillaris*,  
*andamanica*, p. 84.
        - d<sup>iv</sup>. No maroon feathers on chest . . . . . { *jugularis*, p. 84.  
*frenata*, p. 86.
      - d<sup>iii</sup>. Forehead metallic violet; centre of fore neck and chest bright orange . . . . . *aurora*, p. 88.
      - e<sup>iii</sup>. Forehead metallic blue; whole breast bright yellow; no maroon feathers on chest . . . *flagrans*, p. 88.
      - f<sup>iii</sup>. Centre of upper breast sooty black; maroon band across the chest . . . . . *pectorulus*, p. 88.
  - g'. Breast and abdomen blue-black . . . . . *rhizophoræ*, p. 89.  
*zenobieæ*, p. 90.

## V.

- a. Fore neck and chest brilliant red . . . . . } *gutturialis*, p. 91.  
 } *cruentata*, p. 93.  
 } *scnegalensis*, p. 94.
- b. Fore neck and chest dark brown or black.
- a'. Pectoral tufts. . . . . *fuliginosa*, p. 95.
- b'. No pectoral tufts.
- a''. Crown green; throat purple . . . . . } *amethystina*, p. 96.
- b''. Forehead, throat, and fore neck green; a few } *kiriki*, p. 97.
- purple and red feathers on the chest. . . . . *angolensis*, p. 98.
- c. Upper throat and a narrow band across the chest black; lower throat and fore neck cream-colour. . *adalberti*, p. 99.

FIRST GROUP (*C. venusta*, &c.).

The species of this group have the mantle, head, and neck metallic coloured. The underparts are generally of bright colours, and are ornamented with pectoral tufts. The chest always differs from the breast in coloration. Nares bare.— African.

1. *Cinnyris chloropygia*.

- Soui-manga à collier noir, *Aud. et Vieill. Ois. Dor.* ii. p. 117, pl. 80 (1802).
- Nectarinia chloropygia*, *Jard. Ann. Nat. Hist.* x. p. 188 (1842); *id. & Selby, Illust. Orn.* n. s. pl. 50 (1842); *Jard. Monogr. Sun-birds*, pp. 171, 249, pl. 3 (1843); *Gray, Gen. B.* i. p. 97 (1847); *Allen & Thompson, Exped. Niger*, ii. App. p. 503 (1848); *Jard. Contr. Orn.* 1851, p. 151; *Verr. Rev. et Mag. Zool.* 1851, p. 315; *Hartl. Orn. W.-Afr.* p. 47, no. 135 (1857); *Cass. Pr. Philad. Acad.* 1859, p. 35, no. 39; *Sharpe, Ibis*, 1869, p. 188; *Gray, Hand-l. B.* i. p. 108, no. 1316; *Sharpe, P. Z. S.* 1871, pp. 133, 609, 615; *id. Cat. Afr. B.* p. 39, no. 370 (1871); *Ussher, Ibis*, 1874, p. 60; *Hartl, J. f. O.* 1860, p. 109; *Heine, tom. cit.* p. 136; *Reichenow, J. f. O.* 1875, p. 31; *Bouvier, Cat. Ois. Marche &c.* p. 13; *Reichenow, J. f. O.* 1877, p. 25; *Bocage, Orn. d'Angola*, p. 170 (1877).
- Cinnyris chloropygius*, *Bp. C. A.* i. p. 407, no. 31; *Reichb. Handb. Scauroria*, p. 290, no. 675, pl. 577. figs. 3926, 3927 (1854); *Shelley, Monogr. Nect.* p. 257, pl. 79.
- Anthodieta chloropygia*, *Bp. Comptes Rendus*, 1854, p. 265; *Oust. Bull. Soc. Philom.* 7th ser. i. p. 106 (1877); *id. Nouv. Arch. Mus.* i. p. 87 (1878).

Closely allied to *C. chalybea*, but with the entire tail bluish black; the upper tail-coverts are dark green in position B, dark blue in C. The other metallic parts are as in *C. chalybea*; the narrow blue pectoral band is in most specimens almost entirely suppressed, only a few of the green feathers showing a dark-blue gloss in position C; the scarlet extends down the centre of the upper breast; pectoral tufts very largely developed; rest of underparts ashy brown, strongly washed with olive-yellow.

*Adult female.* Above olive-brown; tail blackish, with pale edges; upper throat dull white; under wing-coverts and edge of wing

white, washed with yellow; moustache and rest of the underparts dull sulphur-yellow; inner web of quills white.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂ . . . . .	0.70-0.85	1.9-2.05	1.2-1.4	0.5-0.64
♀ . . . . .	0.70-0.73	1.7-1.85	1.2	0.6

*Hab.* West Africa, from Senegal to Angola.

a. ♀ ad. sk.	Ashantee.	R. B. Sharpe, Esq.
b. ♂ ad. sk.	Fantee.	R. B. Sharpe, Esq.
c. ♀ ad. sk.	Fantee ( <i>Ussher</i> ).	R. B. Sharpe, Esq.
d-h. ♂ juv.; i, k. ♀ juv.	Fantee ( <i>Aubinn</i> ).	R. B. Sharpe, Esq.
l. ♀ ad.; m, n. ♂ imm. sk.	River Volta ( <i>Ussher</i> ).	R. B. Sharpe, Esq.
o. ♂ ad. sk.	Cape Palmas.	Capt. Thomson, R.N. [P.].
p, q. ♂ ad. sk.	Cameroons, February 1871 ( <i>Crossley</i> ).	R. B. Sharpe, Esq.
r. ♂ ad. sk.	Fernando Po.	L. Fraser, Esq. [C.].
s. ♂ juv. sk.	Fernando Po ( <i>Marche</i> ).	R. B. Sharpe, Esq.
t, u. ♂ ♀ ad. st.	Gaboon.	M. Verreaux.
v, w, x. ♂ ad. sk.	Gaboon.	R. B. Sharpe, Esq.
y, z, a'. ♂ imm. sk.	Gaboon.	R. B. Sharpe, Esq.
b', c'. ♂ ♀ juv. sk.	Gaboon ( <i>Marche</i> ).	R. B. Sharpe, Esq.
d'. ♂ imm. sk.	Angola ( <i>Hamilton</i> ).	R. B. Sharpe, Esq.
e', f'. ♂ ♀ in spirit.	Lagos.	Governor Ussher [C.].

## 2. *Cinnyris afra*.

Red-breasted Green Creeper, *Edwards, Gleanings Nat. Hist.* iii. p. 285, pl. 347, fig. 1 (1764).

*Certhia afra*, *Linn. S. N.* i. p. 186 (1766, *ex Edwards*); *P. L. S. Müller, S. N.* ii. p. 257 (1773); *Gm. S. N.* i. p. 476 (1781); *Lath. Ind. Orn.* i. pp. 286, 287, var.  $\beta, \gamma$  (1790); *Shaw, Gen. Zool.* viii. p. 192 (1811).

*Certhia viridis*, *Scop. Ann.* i. p. 52 (1768); *Gm. S. N.* i. p. 469 (1788); *Lath. Ind. Orn.* i. p. 281 (1790); *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 506 (1817); *id. Enc. Méth.* ii. p. 583 (1823).

Soui-manga vert à gorge rouge, *Buff. Hist. Ois.* v. p. 514 (1778); *Aud. et Vieill. Ois. Dor.* ii. p. 63 (1802).

Green Creeper, *Lath. Gen. Syn. B.* ii. p. 702 (1781).

African Creeper, *Lath. t. c.* p. 717.

Grimpereau vert du Cap de Bonne Espérance, *Somm. Voy. Ind.* ii. p. 208, pl. 116, fig. 2 (1782).

*Certhia canora*, *Scop. Flor. et Faun. Insub.* ii. p. 90 (1786).

Blue-rumped Creeper, *Lath. Gen. Syn. Suppl.* p. 131 (1787); *id. Gen. Hist. B.* iv. pp. 238, 239, var. A (1822).

*Certhia scarlatina*, *Sparrm. Mus. Carls.* ii. pl. 58 (1788).

Soui-manga à ceinture bleue, *Aud. et Vieill. Ois. Dor.* ii. p. 28, pl. 10 (1802).

Le Suerier à plastron rouge, *Lecaill. Ois. d'Afr.* vi. p. 176, pl. 300 (1808); *Suindey. Krit. Framst., Lecaill.* p. 57 (1857).

*Cinnyris afra*, *Cuv. Règne Anim.* i. p. 412 (1817); *Bp. O. A.* i. p. 407 (1850); *Cab. Mus. Hein.* i. p. 102 (1850); *Reichenb. Handb. Scansor.* p. 288, pl. 575, figs. 3914-15 (1854); *Gurney, in Anderss. B. Damara Ld.* p. 70 (1872); *Sharpe, ed. Layard's B. S. Afr.* p. 313 (1876); *Shelley, Monogr. Nect.* p. 249, pl. 77.

- Cinnyris pectoralis*, Vieill. *N. Dict. d'Hist. Nat.* xxxi. p. 497 (1819); *id. Enc. Méth.* ii. p. 58 (1823).  
*Cinnyris smaragdinus*, Vieill. *N. Dict. d'Hist. Nat.* xxxi. p. 508; *id. Enc. Méth.* ii. p. 595; *Less. Man. d'Orn.* ii. p. 49 (1828).  
*Cinnyris viridis*, Vieill. *N. Dict. d'Hist. Nat.* xxxi. p. 515 (1819); *id. Enc. Méth.* ii. p. 588 (1823); *Less. Man. d'Orn.* ii. p. 46.  
 Bifasciated Creeper, *Lath. Gen. Hist. B.* iv. p. 285 (1822).  
*Nectarinia smaragdina*, *Drapiez, Dict. Class.* xv. p. 513 (1829).  
*Nectarinia afra*, *Jard. Monogr. Sun-birds*, pp. 169, 247, pl. 2 (1843); *Gray, Gen. B.* i. p. 97 (1847); *Selat. P. Z. S.* 1866, p. 22; *Layard, B. S. Afr.* p. 76.  
*Certhia erythrogastra*, *Shaw, Nat. Misc.* xx. pl. 837 (1847).  
*Cinnyris canora*, *Bp. C. A. i.* p. 407 (1850); *Reichenb. Handb. Scansor.* p. 288, pl. 574, fig. 3913 (1854).  
*Nectarinia scarlatina*, *Müll. J. f. O.* 1855, p. 16; *Grill, Zool. Anteckn.* pp. 11, 39 (1858).  
*Nectarinia ludovicensis*, *Bocage, Journ. Lisb.* ii. p. 41 (1868); *Gray, Hand-l. B.* i. p. 107, no. 1304 (1869); *Bocage, Orn. d'Angola*, p. 169 (1877).  
*Nectarinia canora*, *Gray, Hand-l. B.* i. p. 106, no. 1288.



Bill of *Cinnyris afra*.

*Adult male.* Quills and greater coverts uniform blackish brown; tail black; head and neck all round, mantle, most of the wing-coverts, and back metallic bluish green; chest and upper breast crimson; pectoral tufts bright yellow; a narrow line between the red and the metallic green parts on the chest, and the upper tail-coverts metallic violet; rest of underparts, including the under wing-coverts and thighs, ashy brown.

*Adult female.* Above rusty brown, with a slight olive tinge; tail blue-black, the outer pair of feathers with pale edges; underparts pale ashy brown, washed with yellow on the centre of the breast and on the abdomen; under wing-coverts and edge of wing greyish white and yellowish.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂ .....	1·2	2·65	2·2	0·78
♂ .....	1·1	2·5	2·1	0·78
♂ .....	1·15	2·5	2·1	0·78
♂ .....	1·2	2·7	2·2	0·78
♀ .....	1·1	2·4	1·8	0·70

*Hab.* South Africa.

- |              |                                     |                                      |
|--------------|-------------------------------------|--------------------------------------|
| a. ♂ ad. st. | Cape of Good Hope.                  | F. Campbell, Esq. [P.].              |
| b. ♀ ad. sk. | Cape of Good Hope.                  | R. B. Sharpe, Esq.                   |
| c. ♀ ad. sk. | South Africa.                       | Purchased.                           |
| d. ♂ ad. sk. | Mossel Bay, April 11<br>(F. Oates). | W. E. & C. G. Oates,<br>Esqrs. [P.]. |

e. ♂ ad. sk.	Algoa Bay, November.	R. B. Sharpe, Esq.
f. g. ♂ ♀ ad. sk.	Knysna ( <i>Andersson</i> ).	R. B. Sharpe, Esq.
h. ♂ ad. sk.	Elands Post ( <i>T. Atmore</i> ).	R. B. Sharpe, Esq.
i, k. ♂ ad. sk.	Natal.	R. B. Sharpe, Esq.
l. ♂ ad. moulting sk.	Natal.	T. Ayres, Esq. [C.].
m. ♂ ad. sk.	Zambesi ( <i>Meller</i> ).	R. B. Sharpe, Esq.

Subsp. a. *Cinnyris chalybea*.

- Le Grimpereau à collier du Cap de Bonne Espérance, *Briss. Orn.* iii. p. 643, pl. 32. fig. 1 (1760).
- Certhia chalybea*, *Linn. S. N.* i. p. 186, no. 10 (1766); *P. L. S. Müll. S. N.* ii. p. 257, no. 10 (1773); *Gm. S. N.* i. p. 475 (1788); *Lath. Ind. Orn.* i. p. 284 (1790); *Shaw, Gen. Zool.* viii. p. 196, pl. 28. fig. 1 (1811).
- Grimpereau du Cap de Bonne Espérance, *Daubent. Pl. Enl.* 246. fig. 3 (1770-86).
- Soui-manga à collier, *Buff. Hist. Ois.* v. p. 502 (1778); *Aud. et Vieill. Ois. Dor.* ii. pp. 32, 34, pls. 13, 14 (1802).
- Collared Creeper, *Lath. Gen. Syn. B.* ii. p. 709, no. 10 (1782); *id. Gen. Hist. B.* iv. p. 247, no. 40 (1822).
- Certhia chalybea*, *Shaw & Nodd, Nat. Misc.* x. pl. 381 (1799).
- Jeune Soui-manga, *Aud. et Vieill. Ois. Dor.* ii. p. 47, pl. 26 (1802).
- Suerier à double collier, *Levaill. Ois. d'Afr.* vi. p. 178; *Sunder. Krit. Framst., Levaill.* p. 57 (1857).
- Cinnyris chalybeus*, *Cuv. Règne Anim.* i. p. 412 (1817); *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 498 (1819); *id. Enc. Méth.* ii. p. 585 (1823); *Swains. Zool. Ill.* pl. 95 (1820-33); *Less. Man. d'Orn.* ii. p. 22 (1828); *Hahn, Vög.* pt. 16, pl. 3 (1829); *Less. Traité d'Orn.* i. p. 293, no. 6 (1831); *Hahn, Orn. Atl. Cinnyris*, p. 2, no. 2, pl. 2 (1834); *Swains. B. W. Afr.* ii. p. 132 (1837); *Bp. C. A.* i. p. 407, no. 24 (1850); *Cab. Mus. Hein.* i. p. 102, no. 559 (1850); *Reichb. Handb. Scansorie*, p. 289, no. 668, pl. 575. figs. 3916-18 (1854); *Gurney in Andersson, B. Damara Land*, p. 69 (1872); *Sharpe, ed. Layard's B. S. Afr.* p. 314 (1876); *Ayres, Ibis*, 1876, p. 425; *Shelley, Monogr. Nect.* p. 253, pl. 78.
- Nectarinia chalybea*, *Burchell, Trav. S. Afr.* i. p. 221 (1822); *Drapiez, Dict. Class.* xv. p. 510 (1829); *Jard. Monogr. Sun-birds*, pp. 166, 284, pl. 1 (1843); *Gray, Gen. B.* i. p. 97 (1847); *Grill, Zool. Anteckn.* pp. 11, 39 (1853); *Pelzeln, Reise Novara, Vög.* i. p. 51 (1865); *Layard, B. S. Afr.* p. 75, no. 122 (1867); *Gurney, Ibis*, 1868, p. 43; *Gray, Hand-l. B.* i. p. 106, no. 1282 (1869); *Sharpe, Cat. Afr. B.* pl. 39, no. 369 (1871); *Shelley, Ibis*, 1875, p. 70; *Barratt, Ibis*, 1876, p. 202.
- Cinnyris capensis* (*nec Linn.*), *Less. Traité d'Orn.* i. p. 293, no. 7 (1831).
- Nectarinia intermedia*, *Bocage, Journ. Lisb.* 1878, p. 3.

In pattern of coloration very similar to *C. afra*, but the birds are smaller, the crimson-red is confined to a broad band across the chest, the metallic green parts are strongly coppery green in position B and scarcely bluish. Outer pairs of tail-feathers with broad pale edges and tips. Culmen 0.85 inch, wing 2.25, tail 1.7, tarsus 0.65.

*Female.* Underparts brownish buff, scarcely washed with yellow. Wing 2-2.1 inches.

*Obs.* In the young male the first step towards the beautiful plumage of the adult is made by the appearance of the pectoral tufts and of some of the crimson-red feathers; then follows the blue metallic throat or the mantle, lastly the crown.

*Hab.* South Africa.

a. ♂ ad. ; b. ♂ imm. st.	South Africa.	Dr. Lee [P.].
c. ♀ ad. st.	South Africa.	Sir A. Smith [C.].
d. ♂ ad. sk.	South Africa.	F. D. Godman and O. Salvin, Esqrs. [P.].
e, f, g. ♂ ; h, i. ♀ ad. sk.	South Africa.	Purchased.
k. ♀ ad. ; l. ♂ imm. sk.	Cape Town ( <i>Butler</i> ).	R. B. Sharpe, Esq.
m. ♂ ad. sk.	Cape Town, April 24, 1866 ( <i>Andersson</i> ).	R. B. Sharpe, Esq.
n. ♂ ad. sk.	Stellenbosch, Dec. 1840.	R. B. Sharpe, Esq.
o. ♀ ad. sk.	Swellendam, Oct. 1840.	R. B. Sharpe, Esq.
p. ♂ ad. sk.	Slang Kope, Sept. 1834.	R. B. Sharpe, Esq.
q, r. ♂ ♀ ad. sk.	Knysna ( <i>Andersson</i> ).	R. B. Sharpe, Esq.
s. ♂ imm. sk.	Knysna, February 1866 ( <i>Andersson</i> ).	R. B. Sharpe, Esq.
t. ♂ imm. sk.	George ( <i>H. Atmore</i> ).	R. B. Sharpe, Esq.
u, v. ♂ ♀ ad. sk.	Macamac, July 1874.	F. A. Barratt, Esq. [P.].
w. ♂ imm. sk.	Macamac, July 1874 ( <i>T. L. Ayres</i> ).	J. H. Gurney, Esq. [P.].
x. ♀ ad. sk.	Lydenburg, E. Transvaal.	F. A. Barratt, Esq. [P.].

### Subsp. β. *Cinnyris erikssoni*.

*Cinnyris erikssoni*, *Trimen*, *P. Z. S.* 1882, p. 451, pl. 32.

This Sun-bird belongs to Shelley's "pale metallic group" of the genus *Cinnyris*, and is in colouring almost identical with *C. afer* (L.), but differs strikingly in size, being not larger than *C. chalybeus* (L.), and in the shortness of its beak. In the male the metallic green is perhaps rather more smooth and brilliant than in *C. afer*, and the scarlet of the breast somewhat lighter; but it is in the *width* of the latter that the bird differs most, the specimens in finest plumage having the belt an inch broad, which is actually wider than the same marking in the much larger *C. afer*. It is further remarkable that the wings are as long as in *C. afer*, viz. 2 in. 6 lin., while in *C. chalybeus* they measure only 2 in. 3 lin. The bill, however, is 1 line shorter than in *C. chalybeus* (culmen 9 lin.) and 5 lines shorter than in *C. afer* (12½ to 13 lin.). (*Trimen*, *l. c.*)

*C. erikssoni* cannot be confounded with *C. chalybeus*, the latter having such a very narrow scarlet breast-belt; but it is more like *C. chloropygius*, Jard., a native of all the tropical West-African coast from Senegal to Angola. This last-named bird, however, is much smaller (total length 3 in. 7 lin.), and wants both the blue upper tail-coverts and blue pectoral collar presented by *C. erikssoni*. (*Trimen*, *l. c.*)

*Hab.* Damara Land.

3. *Cinnyris coquereli*.

*Nectarinia coquerellii*, *Ferr. J. f. O.* 1860, p. 90; *Hartl. Faun. Madag.* p. 34 (1861); *id. Vög. Madag.* p. 92 (1877).

*Nectarinia coquereli*, *Schleg. P. Z. S.* 1866, p. 421; *Schleg. & Poll. Faun. Madag., Ois.* p. 71, pl. 18. fig. 1 (1868); *E. Newton, P. Z. S.* 1877, p. 302.

*Cinnyris coquereli*, *Shelley, Monogr. Nect.* p. 243, pl. 75.

*Adult male.* Wings and greater coverts and tail black, externally edged with blue; inner web of quills pale; all the rest of the upper parts, the sides of the neck, and the fore neck metallic black—in position B dark bronzy green, in C rich bluish green; pectoral tufts scarcely distinguishable from the rich yellow of the breast and abdomen; centre of breast with a large scarlet patch; under tail-coverts pale yellow; thighs brown; under wing-coverts white. Culmen 0.75 inch, wing 2, tail 1.3, tarsus 0.6.

*Female.* Not known.

*Hab.* Mayotte (Comoro Islands).

a. ♂ ad. sk.                      Mayotte, 1860 (*Coquerel*).                      R. B. Sharpe, Esq.

4. *Cinnyris venusta*.*C. venusta.*

*Certhia venusta*, *Shaw, Nat. Misc.* x. pl. 369 (1799); *Lath. Ind. Orn. Suppl.* ii. p. 35, no. 2 (1801); *Shaw, Gen. Zool.* viii. p. 247 (1811).

Leona Creeper, *Lath. Gen. Syn. Suppl.* ii. p. 164, no. 19 (1801); *id. Gen. Hist. B.* iv. p. 234 (1822).

Souï-manga de Sierra Leone, ou le Quinticolor, *Aud. et Vieill. Ois. Dor.* ii. p. 116, pl. 79 (1802).

*Certhia quinticolor*, *Bechst. Kurze Uebers.* p. 194, no. 85 (1812).

*Cinnyris venustus*, *Cuv. Règne Anim.* i. p. 412 (1817); *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 512 (1819); *Bonn. et Vieill. Enc. Méth.* ii. p. 598 (1823); *Bp. C. A.* i. p. 407, no. 29 (1850); *Shelley, Monogr. Nect.* p. 235, pl. 74. figs. 1 & 3.

Band-breasted Creeper, *Lath. Gen. Hist. B.* iv. p. 260 (1822).

*Cinnyris quinticolor*, *Less. Man. d'Orn.* ii. p. 45 (1828).

*Cinnyris pusillus*, *Swains. B. W. Afr.* ii. p. 138 (1837, *nec Vieill.*); *Bp. C. A.* i. p. 406, no. 9 (1850); *Cab. Mus. Hein.* i. p. 102, no. 560 (1850).

*Nectarinia parvula*, *Jard. Monogr. Sun-birds*, p. 181 (1842).

*Nectarinia venusta*, *Jard. tom. cit.* p. 252, pl. 7; *Hartl. Orn. W.-Afr.* p. 48, no. 136 (1857); *id. J. f. O.* 1861, p. 109; *Bocage, Journ. Lisb.* ii. p. 41, no. 16 (1868); *Reichenow, J. f. O.* 1875, p. 30; *Bocage, Journ. Lisb.* 1878, p. 2; *id. Orn. d'Angola*, p. 173 (1877).

*Chalcomitra venusta*, *Reichb. Handb. Scansoriae*, p. 280, no. 648, pl. 569. fig. 3884 (1854).

*Cyanomitra pusilla*, *Reichb. tom. cit.* p. 291, no. 679, pl. 615. figs. 4105-6.

♀ *Nectarinia affinis*, *Bouvier, Cat. Ois. Marche &c.* p. 14 (1875).

♀ *Cinnyris flaviventer*, *Less. Descr. Mamm. et Ois.* p. 270 (1847).

*C. affinis.*

- Violet-tailed Creeper, *Lath. Gen. Hist. B. iv. p. 232, no. 20 (1822).*  
*Cinnyris affinis*, *Rüpp. Neue Wirb. p. 87, pl. 31, fig. 1 (1835); Lefeb. Voy. Abyss., Ois. p. 87 (1845-50); Ferr. et Gal. Voy. Abyss. iii. p. 248 (1847); Shelley, Monogr. Nect. p. 239, pl. 74, fig. 2.*  
*Nectarinia affinis*, *Jard. Monogr. Sun-birds, p. 275 (1842); Rüpp. Syst. Uebers. p. 28 (1845); Bp. C. A. i. p. 406, no. 12 (1850); Heugl. Syst. Uebers. Voy. N.O.-Afr. p. 21 (1856); Heugl. Faun. roth. Meer. p. 21 (1861); Brehm, Habesch. pp. 211, 284 (1863); Finsch, Trans. Z. S. vii. p. 229 (1869); Blanford, Geol. & Zool. Abyss. p. 351, no. 108 (1870); Heugl. Orn. N.O.-Afr. i. p. 232 (1871).*  
*Cyanomitra affinis*, *Reichb. Handb. Scansoriæ, p. 292, no. 680, pl. 573, fig. 3907 (1854); Antin. & Salvad. Ann. Mus. Civ. Genova, iv. p. 452 (1873).*  
*Nectarinia souimanga*, *Heugl. J. f. O. 1867, p. 300.*  
*Nectarinia*, sp. ?, *Heugl. Orn. N.O.-Afr. i. p. 233 (1871).*  
*Nectarinia fazoglensis*, *Finsch, in Heuglin's Orn. N.O.-Afr., Append. p. lxx.*  
*Cinnyris heuglini*, *Shelley, Monogr. Nect. p. 241.*

*C. leucogaster.*

- Cinnyris leucogaster*, *Vieill. N. Dict. d'Hist. Nat. xxxi. p. 515 (1819); Less. Man. d'Orn. ii. p. 56; Walden, Ibis, 1870, p. 19; Shelley, Monogr. Nect. p. xxxix.*  
*Cinnyris thoracicus*, *Less. Traité d'Orn. ii. p. 297 (1831); Pucheran, Rev. Mag. Zool. 1853, p. 487.*  
*Nectarinia talatala*, *Smith, App. Rep. Exp. S. Afr. p. 58 (1836); Sharpe, ed. Layard's B. of S. Afr. p. 318, pl. 7 (1876); Bocage, Orn. d'Angola, p. 172.*  
*Nectarinia anderssoni*, *Strickl. & Sclat. Contr. Orn. 1852, p. 153; Gray, Hand-l. B. i. p. 106, no. 1285 (1869).*  
*Cinnyricinclæ anderssonii*, *Reichenb. Handb. Scansor. p. 307 (1854).*  
*Nectarinia*, sp. ?, *Bocage, Journ. Lisb. i. p. 332, no. 12 (1867).*  
*Cinnyris talatala*, *Layard, Ibis, 1868, p. 270; Gurney in Anderss. B. Damara Id. p. 72 (1872); id. Ibis, 1873, p. 255; Ayres, Ibis, 1879, p. 294; Shelley, Monogr. Nect. p. 229, pl. 71.*

*C. albiventris.*

- Nectarinia albiventris*, *Strickl. Contr. Orn. 1852, p. 42, pl. 86; Sclat. tom. cit. p. 124; id. Rep. Coll. Somali Country, p. 14 (1860); Speke, Ibis, 1860, p. 247; Heugl. J. f. O. 1864, p. 203; Finsch & Hartl. Voy. Ost-Afr. p. 223 (1870); Heugl. Orn. N.O.-Afr. i. p. 234 (1871).*  
*Cinnyricinclæ albiventris*, *Reichenb. Handb. Scansor. p. 306, no. 607, pl. 562 b. figs. 4078, 4079 (1854).*  
*Cinnyris albiventris*, *Shelley, Monogr. Nect. p. 233, pl. 73.*

A. *Western or dull-coloured Race (C. venusta).*

*Adult male.* Lower breast, sides of abdomen, under tail-coverts, and thighs buffy yellow; pectoral tufts bright orange (almost scarlet-red) and yellow; quills and greater coverts dark brown with pale edges; tail blue-black, strongly edged with metallic



bluish green, outer pair with slight pale tips in some specimens. All the other parts of the plumage are metallic black in position A. In positions B and C the forehead, upper throat, and chest are rich purple; in B the upper tail-coverts are dark green, the other metallic parts greenish bronzy; in C the tail-coverts change into dark blue, the rest into brilliant green. In front of the eye, on the chin, and between the purple and yellow of the breast are a few black feathers. Under wing-coverts and inner edge of the quills whitish. Culmen 0.70-0.75 inch, wing 1.95, tail 1.4, tarsus 0.55.

*Female.* Above pale earthy brown with an olive tinge; wings darker brown; tail blackish brown, the outer pair of feathers broadly edged and tipped with whitish; underparts dingy yellow, purest on the abdomen and on the under tail-coverts. Wing 1.85-1.95 inch, tail 1.2.

*Young males* are like the female, but have the throat slightly mottled with blackish.

*Hab.* West Africa from Senegambia to Gaboon.

#### B. North-eastern or brighter-coloured Race (*C. affinis*).

Distribution of colours precisely the same as in the western typical *C. venusta*, but the breast, abdomen, and under tail-coverts are bright and rich yellow; chest more blue than purple; upper parts in position B not bronzy but dark golden green, in position C rich bluish green; thighs dark brown instead of buff; pectoral tufts chrome-yellow, instead of scarlet or orange. Culmen 0.70-0.75 inch, wing 2.1-2.15 (2.05 in female), tail 1.45-1.5, tarsus 0.6.

These birds might be called a brighter-coloured and slightly larger race of *C. venusta*, representing the latter in the northern half of the Ethiopian Region, from Abyssinia and Kordofan to Sierra Leone.

*Obs.* One adult male from Sierra Leone, collected by Sabine, agrees perfectly with the richly yellow-coloured race. See Bouvier, *l. c.*

#### C. Southern Race (*C. leucogaster*).

*Adult male.* Entire crown and sides of head, mantle, back, upper tail-coverts, and centre of fore neck metallic golden green, changing to brilliant greenish blue in position C; chest reddish purple; rest of fore neck dark bluish green, more blue on the upper throat; pectoral tufts bright sulphur-yellow; breast and rest of underparts white, sides slightly washed with grey; abdomen faintly tinged with yellow; under wing-coverts blackish; edge of wing metallic bluish green; the concealed fluffy feathers of the back mottled with whitish and grey.

*Female.* Pale earthy brown above; tail blackish brown, the outer pair of feathers edged and tipped with whitish; underparts, including edge of wing and under wing-coverts, white, with faint brownish centres to the feathers of fore neck and chest; abdomen tinged with yellow.

## Measurements:—

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂ . . . . .	0·8	2·25	1·5	0·60
♂ . . . . .	0·9	2·20	1·5	0·65
♂ . . . . .	0·9	2·15	1·35	0·65
♀ . . . . .	0·8	2·0	1·35	0·60

*Hab.* South Africa, except the Cape Colony.

D. *Eastern Race* (*C. albiventris*).

Slightly smaller than the Western race, and having the pectoral tufts orange and yellow instead of pure yellow. The type specimens, which are in very bad condition, measure, according to Capt. Shelley:—♂. Culmen 0·65 inch, wing 2·1, tarsus 0·65; ♀. Culmen 0·60 inch, wing 1·95, tarsus 0·60.

*Hab.* Somali Land.

*C. venusta.*

a. ♀ ad. st.	W. Africa.	M. Verreaux.
b, c. ♂ ad. sk.	West Africa.	Purchased.
d. ♂ ad. sk.	Bissao.	R. B. Sharpe, Esq.
e. ♂ imm. sk.	Dakar, Cape Verd ( <i>Laglaize</i> ).	R. B. Sharpe, Esq.
f. ♂; g, h, i. ♀ juv. sk.	Dakar, Cape Verd ( <i>Laglaize</i> ).	R. B. Sharpe, Esq.
k. ♂ ad. sk.	Casamanze, Aug. 1864.	R. B. Sharpe, Esq.
l. ♂ imm. sk.	Casamanze, Oct. 1864.	R. B. Sharpe, Esq.
m. ♀ ad. sk.	Sierra Leone.	R. B. Sharpe, Esq.
n. ♂ ad. sk.	Sierra Leone.	Sir E. Sabine [P.].
o. ♂ juv. sk.	Ebo, R. Niger.	W. T. Thomson, R.N. [P.].
p. ♂ ad. sk.	Gaboon.	M. J. Verreaux.

*C. affinis.*

a. ♂ ad. sk.	Kordofan.	R. B. Sharpe, Esq.
b. ♂ ad. sk.	Senafé, Tigré, 8000 ft., May 26, 1868.	W. T. Blanford, Esq. [C.].
c. ♂ imm. sk.	Near Undul, 3500 ft., Feb. 19, 1868.	W. T. Blanford, Esq. [C.].
d. ♂ ad. sk.	Undul, May 27, 1868 ( <i>Jesse</i> ).	R. B. Sharpe, Esq.
e. ♂ ad. sk.	Rayrayguddy ( <i>Jesse</i> ), April 8, 1868.	R. B. Sharpe, Esq.
f. ♂ ad. sk.	Abyssinia ( <i>Jesse</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].
g, h. ♂ ♀ ad. sk.	Ankober, June 1842 ( <i>Harris</i> ).	India Museum.
i, k. ♂ ♀ ad. sk.	Kokai, Lebka valley, 4000 ft., July 11, 1868.	W. T. Blanford, Esq. [C.].

*C. leucogaster.*

a. ♂ ad. sk.	South Africa.	R. B. Sharpe, Esq.
b. ♀ ad. sk.	Natal ( <i>C. Harford</i> ).	R. B. Sharpe, Esq.

c. ♀ ad. sk.	Port Natal ( <i>J. Verreaux</i> ).	R. B. Sharpe, Esq.
d. ♂ moulting sk.	Natal, Sept.	Dr. Gueinzus [C.].
e. ♀ ad. sk.	Bamangwato, Oct. 13, 1873.	T. E. Buckley, Esq. [P.].
f. ♂ juv. sk.	Tete, Zambesi.	Sir J. Kirk [C.].
g. ♂ ad. sk.	Zambesi ( <i>Meller</i> ).	R. B. Sharpe, Esq.
h. ♂ ad. sk.	Damara Land, January 1867 ( <i>Andersson</i> ).	R. B. Sharpe, Esq.
i. ♂ ad. sk.	Elephant Vley, Sept. 12, 1859 ( <i>Andersson</i> ).	R. B. Sharpe, Esq.
k. ♂ ad. moulting sk.	Ovaquenyama, June 6, 1867 ( <i>Andersson</i> ).	R. B. Sharpe, Esq.

### 5. *Cinnyris oustaleti*.

*Nectarinia albiventris*?, *Bocage, Journ. Lisboa*, 1878, p. 208.

*Nectarinia oustaleti*, *Bocage, tom. cit.* p. 254.

*Cinnyris oustaleti*, *Shelley, Monogr. Nect.* p. 231, pl. 72. fig. 1.

Differs from *C. leucogaster* in having the metallic blue feathers of the chest tipped with maroon-red, producing thus an indistinct band of red across the chest; pectoral tufts partly washed with orange-red. Culmen 0.75 inch, wing 2.2, tail 1.7, tarsus 0.6.

*Hab.* Benguela.

### 6. *Cinnyris souimanga*.

Grimpereau violet de Madagascar, *Briss. Orn.* iii. p. 638, no. 18, pl. 32. figs. 2, 3 (1760).

Le Soui-manga, *Montb. Hist. Ois.* v. p. 494 (1778); *Aud. et Vieill. Ois. Dor.* ii. pp. 39, 41, pls. 18, 19 (1802).

Violet Creeper, *Lath. Gen. Syn. B.* ii. p. 705, no. 7 (1781); *id. Gen. Hist. B.* iv. p. 222, no. 10 (1822).

*Certhia souimanga*, *Gmel. S. N. i.* p. 471 (1788).

*Certhia madagascariensis*, *Lath. Ind. Orn.* i. p. 282, no. 7 (1790); *Shaw. Gen. Zool.* viii. p. 208 (1811).

*Cinnyris madagascariensis*, *Cuv. Règne Anim.* i. p. 412 (1817); *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 492 (1819); *Bonn. et Vieill. Enc. Méth.* ii. p. 591 (1823); *Less. Man. d'Orn.* ii. p. 24 (1828).

*Nectarinia madagascariensis*, *Jard. Monogr. Sun-birds*, p. 276 (1842).

*Cinnyris souimanga*, *Bp. C. A. i.* p. 407, no. 18 (1850); *Reichb. Handb. Scansoriae*, p. 290, no. 676, pl. 577. figs. 3928-30 (1854); *Shelley, Monogr. Nect.* p. 245, pl. 76.

*Nectarinia souimanga*, *Müll. J. f. O.* 1855, p. 15, no. 157; *E. Newton, Ibis*, 1863, p. 342, pl. 13. fig. 1 (egg); *Schl. P. Z. S.* 1866, p. 421; *Grand. Rev. et Mag. Zool.* 1867, p. 355; *Schl. & Poll. Faun. Madag.* p. 70 (1868); *Hartl. Vög. Madag.* p. 87 (1877); *Milne-Edwards & Grand. Faun. Madag., Atlas*, ii. pls. cv., cvi., cvii. a.

*Adult male.* Head and neck all round and mantle very dark metallic bluish green, passing into blue on the chest; then follows a narrow band of maroon-coloured feathers, then a broad crescent of dull black feathers, occupying the centre of the upper breast; pectoral tufts bright yellow; rest of underparts dingy yellow, washed with pale olive; under wing-coverts whitish; scapulars,

lower back, and rump olive-grey; greater wing-coverts and quills dark brown, slightly edged with olive; tail bluish black, edged with metallic blue-green, outer pairs of feathers with pale tips. Culmen 0·75 inch, wing 2·2, tail 1·55, tarsus 0·55.

*Adult female.* Tail black; all the other upper parts dark olive-brown; some of the smaller wing-coverts faintly edged with metallic blue; underparts yellow, washed with greyish and olive on the fore neck, chest, and flanks. Wing 1·95 inch.

*Hab.* Madagascar.

<i>a.</i> ♂ ad. sk.	N. Madagascar.	Mr. A. Crossley [C.].
<i>b, c.</i> ♂ ♀ ad. sk.	N. Madagascar ( <i>Crossley</i> ).	R. B. Sharpe, Esq.
<i>d, e.</i> ♀ ad. sk.	Madagascar.	R. B. Sharpe, Esq.
<i>f.</i> ♂ imm. sk.	Madagascar.	R. B. Sharpe, Esq.
<i>g.</i> ♂ ad. sk.	Mohambo, Madagascar.	J. Gerrard, Esq. [C.].

## SECOND GROUP (*Cinnyris*).

This group is composed of species which are generally dark in plumage, especially on the underparts of the body, whilst the mantle, head, and neck are metallic coloured. Pectoral tufts are present only in the Asiatic species. Nares bare.—African and Indo-Malayan.

### 7. *Cinnyris mariquensis*.

African Creeper, var. C, *Lath. Gen. Syn. Suppl.* p. 127, no. 18 c (1787).  
*Certhia afra*, var.  $\gamma$ , *Lath. Ind. Orn.* i. p. 287, no. 18  $\gamma$  (1790).

*Cinnyris mariquensis*, *Smith, App. Rep. Exp. S. Afr.* p. 53 (1836);  
*Sharpe, ed. Layard's B. S. Afr.* p. 319 (1876); *Shelley, Monogr. Nect.* p. 211, pl. 65.

*Nectarinia bifasciata*, *Jard. Monogr. Sun-birds*, pp. 174, 250, pl. 4 (1843); *Strickl. & Schl. Contr. Orn.* 1852, p. 153; *Hartl. Orn. W.-Afr.* p. 46, no. 131 (1857); *Layard, B. S. Afr.* p. 77, no. 126 (1867); *Chapman, Trav. S. Afr., App.* p. 407 (1868).

*Cinnyris bifasciatus*, *Reichb. Handb. Scansoriæ*, p. 389, no. 670, pl. 576. figs. 3920–21 (1854); *Ayres, Ibis*, 1871, p. 150; *Gurney in Anderss. B. Dam. Ld.* p. 70 (1872).

#### *C. osiris*.

*Nectarinia jardinei*, *Blanf. (nec Verr.) Geol. & Zool. Abyss.* p. 352 (1870); *Heugl. Orn. N.O.-Afr.* i. p. 227 (1871); *Finsch, Tr. Zool. Soc.* vii. pp. 230, 314 (1872).

*Nectarinia osiris*, *Finsch, tom. cit.* p. 230.

*Cinnyris osiris*, *Shelley, Monogr. Nect.* p. 215, pl. 64. fig. 1.

#### *C. erythroceria*.

*Nectarinia erythroceria*, *Heugl. Syst. Uebers. Vög. N.O.-Afr.* p. 20 (1856); *Hartl. Orn. W.-Afr.* p. 270 (1857).

*Nectarinia erythroceria*, *Heugl. J. f. O.* 1864, p. 261; *id. Reise weiss. Nil*, p. 337 (1869); *Finsch & Hartl. Vög. Ost-Afr.* pp. 219, 861, pl. 2. fig. 2 (1870); *Heugl. Orn. N.O.-Afr.* i. p. 226 (1871).

*Nectarinia gonzenbachii*, *Antin. Cat. descr. Ucc.* p. 35 (1864);  
*Hartmann, J. f. O.* 1866, p. 235; *Bianconi, Spcc. Zool. Mosamb.*  
 p. 320 (1867); *Heugl. J. f. O.* 1867, p. 202; *Salvad. Att. R. Ac.*  
*Torin.* 1870, p. 731.

*Cinnyris erythrocerius*, *Shelley, Monogr. Nect.* p. 209, pl. 64, fig. 2.

A. *Southern Race* (*C. mariquensis typica*).

*Adult male.* Similar to *C. splendida* in pattern of colour, but without the pectoral tufts, and having the neck and head all round and the mantle metallic coppery in position B, this colour passing into dark green on the rump and upper tail-coverts; in position C all the metallic parts dark green, the upper tail-coverts blue; the green fore neck separated from the blood-red or very dark red chest by a narrow metallic blue band; chest-feathers with narrow blue bars; rest of underparts more sooty black.

*Female.* Above olive-grey or earthy brown; wings and wing-coverts with pale edges; tail-feathers black, outer pairs with white tips, and the outermost web edged with white; underparts dingy yellow whitish, many of the feathers with dark central patches; under tail- and under wing-coverts and inner web of quills broadly edged with white.

*Young male.* Whole throat and fore neck dull black; rest of underparts yellow.

*Hab.* South Africa.



Tail of *C. mariquensis* ♂ ex Transvaal.

B. *North-eastern Race* (*C. osiris*).

In specimens from Bogos Land and from Abyssinia the red of the chest becomes suppressed; it is much darker, almost maroon-red, and forms a much narrower collar. The bill is shorter; and the whole bird is slightly smaller than the southern form.

*Hab.* Abyssinia and Bogos Land.

C. *Central Race* (*C. erythroceria*).

The red on the chest is as much developed as in *C. mariquensis typica* and still brighter; all the metallic parts are dark green and greenish blue without any coppery gloss; the central tail-feathers

are considerably narrower and longer than the rest of the tail; bill short as in *C. osiris*. Size of bird smaller than that of the southern form.

*Hab.* White-Nile district.



Heads of *C. mariquensis* and *C. erythroceria*.

Measurements:—

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂. Bamangwato .....	1·0	2·75	2·0	0·70
♂. South Africa .....	0·85	2·65	..	..
♂. Bogos ( <i>C. osiris</i> ) .....	0·77	2·57	1·90	0·65
♂. Abyssinia .....	0·80	2·60	1·90	0·62
♂. White Nile .....	} 0·76	2·40	1·90	0·61
		2·60*		
♂. Angola .....	0·80	2·20	1·50	0·65
♂. Gaboon .....	0·85	2·36	1·55	0·65
♀. Ambriz .....	0·85	2·30	1·55	0·65
♀. Damara .....	0·90	2·50-2·70	1·70	0·64
♀. Ambriz .....	0·80	2·05	1·40	0·62
♂. Adult, Zanzibar (type of <i>C. minororhyncha</i> ) .....	0·70	2·12	1·40	0·56
♂. Imm., Mombas .....	0·68	2·12	1·60	0·54
♂. Young, Mombas .....	0·65	2·05	1·25	0·52

a. *Southern Race* (*C. mariquensis*).

a. ♂ ad. sk.	Transvaal ( <i>Ayres</i> ).	R. B. Sharpe, Esq.
b. ♂ ad. sk.	Macamac, E. Transvaal.	F. A. Barratt, Esq. [P.]
c. ♂ ad. sk.	Bamangwato, Oct. 17, 1873.	T. E. Buckley, Esq. [P.]
d. ♂ ad. sk.	Tati, Oct. 10, 1873.	T. E. Buckley, Esq. [P.]
e. ♀ ad. sk.	Matabele Country, Sept. 29, 1873.	T. E. Buckley, Esq. [P.]
f, g. ♂ ♀ ad. sk.	Makalapsie river, near Shoshong, Aug. ( <i>F. Oates</i> ).	W. E. & C. G. Oates, Esqrs. [P.]
h. ♂ ad. sk.	Zambesi.	R. B. Sharpe, Esq.
i. ♂ ad. sk.	Damara Land.	C. J. Andersson, Esq. [C.]
k. ♀ ad. sk.	Damara Land ( <i>Andersson</i> ).	R. B. Sharpe, Esq.
l. ♀ ad. sk.	Otjimbique, July 7, 1866 ( <i>Andersson</i> ).	R. B. Sharpe, Esq.
m, n. ♂ ad. sk.	Ondonga, Ovampo Land, Nov. 1866 ( <i>Andersson</i> ).	R. B. Sharpe, Esq.

\* Antinori's type of *C. gonzenbachii*.

*β. North-eastern Race (C. osiris).*

- o. ♂ ad. sk. Bogos Land (*Esler*). R. B. Sharpe, Esq.  
 p. ♂ ad. sk. Undul, Abyssinia, 5000 feet, W. T. Blanford, Esq.  
 April 1868. [C.]

*γ. Central Race (C. erythroceria).*

- q. ♂ ad. sk. White Nile. R. B. Sharpe, Esq.

Subsp. *a. Cinnyris bifasciata.*

Souï-manga vert et brun, *Aud. et Vieill. Ois. Dor.* ii. p. 46, pl. 24 (1802).

*Certhia bifasciata*, *Shaw, Gen. Zool.* viii. p. 198 (1811, *ex Aud. et Vieill.*).

*Cinnyris nitens*, *Vieill. N. Diet.* xxxi. p. 514 (1819); *Bonn. et Vieill. Enc. Méth.* ii. p. 588 (1823); *Less. Man. d'Orn.* ii. p. 47 (1828).

Violet-breasted Creeper, *Lath. Gen. Hist. B.* iv. p. 248, no. 41 (1822).

*Nectarinia nitens*, *Drapiez, Dict. Class.* xv. p. 515 (1829).

*Nectarinia bifasciata*, *Gray, Gen. B.* i. p. 97 (1847); *Bocage, Orn. d'Angola*, p. 168 (1877).

*Cinnyris bifasciatus*, *Bp. Consp. Av.* i. p. 407, no. 32 (1850); *Sharpe, ed. Layard's B. S. Afr.* p. 322 (1876); *Shelley, Monogr. Nect.* p. 217, pl. 66.

*Nectarinia jardinei*, *Verr. in Hartl. Orn. W.-Afr.* p. 47, no. 133 (1857); *Hartl. J. f. O.* 1861, p. 109; *Bocage, Journ. Lib.* i. p. 135, no. 35 (1866); *Sharpe, P. Z. S.* 1869, p. 566; *Bocage, Journ. Lib.* 1870, p. 340, 1876, p. 262; *Reichen. J. f. O.* 1877, p. 25.

*a. C. microrhyncha.*

*Nectarinia jardinei* (*nec Verr.*), *Hartl. P. Z. S.* 1867, p. 824; *Finsch & Hartl. Vög. Ost-Afr.* p. 218, pl. 2. fig. 1 (1870); *id.* p. 861 (1857); *Fischer & Reichen. J. f. O.* 1878, p. 260.

*Cinnyris jardinei*, *Cab. in Von der Decken, Reis. Ost-Afr.* iii. p. 29, no. 23 (1869); *id. J. f. O.* 1878, p. 227.

*Cinnyris microrhynchus*, *Shelley, Monogr. Nect.* p. 219, pl. 67; *Nicholson, P. Z. S.* 1878, p. 355; *Shelley, P. Z. S.* 1879, p. 570.

*Adult male.* Smaller and darker than *C. mariquensis*. Distribution of colours the same as in the latter species. Metallic parts blackish green with a coppery gloss, which in position C changes into purplish blue; the chest very dark red, this colour being only very little developed, as in *C. osiris*; breast and abdomen deep black; bill long and slender.

*Female.* All the underparts pale yellow, and not mottled with any trace of brown.

*Hab.* Gaboon to Benguela.

*Obs.* Along the Zanzibar coast occurs a small eastern form, *C. microrhyncha*.

*Obs.* In the birds of the *C. mariquensis* group there seems to be a tendency in the central tail-feathers to become narrower and longer than the rest. In both *C. bifasciata* and in the typical southern *C. mariquensis* some specimens show this peculiarity. In one fully adult male from the Transvaal (*Ayres*), the tail when

seen from above has the appearance as represented in the woodcut: this prolongation seems to be carried out to an extreme in *C. erythroceria*.

a. ♂ ad. sk.	Gaboon ( <i>Verreaux</i> ).	R. B. Sharpe, Esq.
b. ♂ ad. sk.	Gaboon.	Purchased.
c, d. ♂ ad. sk.	Congo.	Commander Sperling [P.].
e, f. ♂ ad. sk.	Angola ( <i>Monteiro</i> ).	R. B. Sharpe, Esq.
g, h. ♀ ad. sk.	Ambriz, March 1869.	J. J. Monteiro, Esq.

*Small Eastern Race* (*C. microrhyncha*).

a. ♂ ad. sk.	Dar-es-Salam, Zanzibar.	Messrs. Moir [C.] (Type of <i>C. microrhyncha</i> .)
b, c. [♂] imm.;	Mombasa ( <i>Wakefield</i> ).	R. B. Sharpe, Esq.
d. ♀ ad. sk.		
e. ♂ ad. sk.	Mombasa.	Rev. H. Fowell Buxton.

### 8. *Cinnyris comorensis*.

*Cinnyris comorensis*, *Peters, J. f. O.* 1864, p. 161; *Shelley, Monogr. Nect.* p. 221, pl. 68.

*Nectarinia comorensis*, *Sclat. Ibis*, 1864, pp. 297, 299; *Hartl. Vög. Madag.* p. 93 (1877); *E. Newton, P. Z. S.* 1877, pp. 297, 302.

*Adult male.* Head and neck all round, mantle, back, and tail rich metallic green; remiges, greater wing-coverts, breast, and abdomen sooty black; a maroon-red collar surrounding the chest; bright orange-red pectoral tufts. Culmen 0.75 inch, wing 2.2, tail 1.65, tarsus 0.65.

*Female.* Upper parts olive; wings and tail blackish brown, the latter narrowly tipped with whitish; underparts pale olive-yellow, inclining to whitish on the throat and under tail-coverts; dark centres of the feathers of the throat partially visible.

*Hab.* Joanna, Comoro Islands.

### 9. *Cinnyris superba*.

Le Sougnimbindou, *Aud. et Vieill. Ois. Dor.* ii. p. 44, pl. 22 (1802).

*Certhia superba*, *Shaw, Gen. Zool.* viii. p. 193 (1811); *id. Nat. Misc.* xx. pp. 316, 865 (1847).

*Certhia sngnimbindu*, *Bechst. Kurze Uebers.* p. 193, no. 80 (1812).

*Cinnyris superbus*, *Cuv. Règne Anim.* i. p. 412 (1817); *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 512, pl. 20. fig. 3 (1819); *Bonn. et Vieill. Enc. Méth.* ii. p. 597 (1823); *Bp. C. A.* i. p. 408, no. 34 (1850); *Shelley, Monogr. Nect.* p. 197, pl. 60.

Violet-throated Creeper, *Lath. Gen. Hist. B.* iv. p. 257, no. 58 (1822).

*Cinnyris sugnimbindou*, *Less. Man. d'Orn.* ii. p. 48 (1828).

*Cinnyris sanguineus*, *Less. Traité d'Orn.* p. 296, no. 18 (1831); *Pucheran, Rev. et Mag. Zool.* 1853, p. 487.

*Nectarinia superba*, *Drapiez, Dict. Class.* xv. p. 514 (1829); *Jard. Monogr. Sun-birds*, p. 275 (1843); *Gray, Gen. B.* i. p. 97 (1847); *Strickl. Contr. Orn.* 1851, p. 133; *Verr. Rev. et Mag. Zool.* 1851, p. 316, 1855, p. 511; *Hartl. Orn. Westaf.* p. 45, no. 127 (1857); *Cass. Pr. Philad. Acad.* 1859, p. 37; *Gray, Hand-l. B.* i. p. 107, no. 1313 (1869); *Sharpe, Ibis*, 1870, p. 52; *id. P. Z. S.*



1871, pp. 133, 609, 615; *id. Cat. Afr. B.* p. 38, no. 355 (1871); *Shelley & Buckley, Ibis*, 1872, p. 287; *Ussher, Ibis*, 1874, p. 59; *Reichenow, J. f. O.* 1875, p. 31; *Bouvier, Cat. Ois. Marche &c.* p. 13; *Bocage, Orn. d'Angola*, p. 165 (1877).

*Chromatophora superba, Reichb. Handb. Scansoriæ*, p. 283, no. 656, pl. 569. fig. 3878 (1851).

*Adult male.* Wings, greater coverts, and tail uniform black; rest of upper parts, head, and neck all round metallic black; in position B the crown of the head brilliant dark green, the fore neck and throat beautiful dark blue, the rest of the metallic parts brilliant golden green; in position C the crown blue, the fore neck purple, mantle and back blackish green; chest and breast dark red; rest of underparts, including the under wing-coverts, black. No pectoral tufts.

*Obs.* The dark red colour frequently extends over the abdomen and over the under tail-coverts.

*Female.* Upper parts olive; wings, wing-coverts, and tail brown, narrowly edged with olive-yellow; tail with pale tips; superciliary line, cheeks, throat, and fore neck pale dingy yellowish, with an olive tinge, changing more and more into purer yellow towards the breast; abdomen and under tail-coverts orange-yellow; under wing-coverts yellowish white.

In the *immature* males the metallic colours first appear on the ulnar coverts, rump, and crown, then on the fore neck &c.

♂. Culmen 1.2-1.35 inch, wing 2.7-2.85, tail 1.8, tarsus 0.75.

♀. " 1.2-1.4 " " 2.6-2.75, " 1.6-1.7, " 0.75.

*Hab.* West Africa, from the Gold Coast to Angola.

a. ♂ ad. sk.	Wassaw ( <i>Blissett</i> ).	R. B. Sharpe, Esq.
b. ♀ ad. sk.	Fantee ( <i>Aubinn</i> ).	R. B. Sharpe, Esq.
c. ♂ ad. sk.	Fantee ( <i>Ussher</i> ).	R. B. Sharpe, Esq.
d, e. ♂ ♀ ad. sk.	Abrobonko, Fantee, Jan. 1871 ( <i>Ussher</i> ).	R. B. Sharpe, Esq.
f. ♂ ad. sk.	Ashantee.	J. Gould, Esq.
g. ♂ ad. sk.	Cameroons, Feb. 18, 1871 ( <i>Crossley</i> ).	R. B. Sharpe, Esq.
h. ♂ imm. sk. (moulting).	Gaboon.	R. B. Sharpe, Esq.
i. ♀ ad. sk.	Gaboon ( <i>Du Chaillu</i> ).	R. B. Sharpe, Esq.
k. ♀ ad. sk.	Gaboon, Oct. 1853.	R. B. Sharpe, Esq.
l, m. ♂ ad. sk.	Angola ( <i>Hamilton</i> ).	R. B. Sharpe, Esq.

### 10. *Cinnyris johannæ*.

*Cinnyris johannæ, Verr. Rev. et Mag. Zool.* 1851, p. 314; *Reichb. Handb. Scansoriæ*, p. 290, no. 674 (1864); *Shelley, Monogr. Nect.* p. 199, pl. 61.

*Nectarinia johannæ, Strickl. Contr. Orn.* 1851, p. 134; *Hartl. Orn. Westafr.* p. 45, no. 128 (1857); *Cass. Pr. Philad. Acad.* 1859, p. 37; *Gray, Hand-l. B. i.* p. 106, no. 1291 (1869); *Sharpe, Ibis*, 1870, p. 478; *id. Cat. Afr. B.* p. 38, no. 356 (1871); *Shelley & Buckley, Ibis*, 1872, p. 287; *Ussher, Ibis*, 1874, p. 59; *Bouvier, Cat. Ois. Marche &c.* p. 13.

*Nectarinia fasciata, Jard. & Fraser, Contr. Orn.* 1852, p. 59; *Hartl. Orn. Westafr.* p. 47, no. 132 (1857).

*Cinnyris fasciata, Reichb. Handb. Scansoriæ*, p. 289, no. 671 (1854).

*Adult male.* Similar to *C. superba*, but the crown uniform in colour with the other metallic upper parts; sides of head and throat metallic brilliant green; across the chest a broad dark band of violet or purplish blue; breast blood-red, with sulphur-yellow pectoral tufts; abdomen and rest of underparts sooty black.

*Obs.* Many of the feathers of the chest have a narrow violet metallic bar, which separates the black basal half from the red terminal half of the feathers.

*Female.* Above olive-brown; tail blackish brown, tipped with white; all the feathers of the underparts with a longitudinal central streak; fore neck, chest, and under wing-coverts whitish; under tail-coverts dingy yellow.

♂. Culmen 1·3 inch, wing 2·6–2·8, tail 1·6, tarsus 0·65.

♀. „ 1·2 „ „ 2·5, „ 1·2, „ 0·61.

*Hab.* From Sierra Leone to Gaboon.

a. ♂ ad. sk.	Fantee ( <i>Ussher</i> ).	R. B. Sharpe, Esq.
b. ♀ ad. sk.	Abouri, Aguapim, March 6, 1872 ( <i>Shelley</i> ).	R. B. Sharpe, Esq.
c. ♂ ad. sk.	Gaboon ( <i>Verreaux</i> ).	R. B. Sharpe, Esq.
d. ♂ imm. sk.	Gaboon ( <i>Verreaux</i> ).	R. B. Sharpe, Esq.

### 11. *Cinnyris splendida*.

? Crimson-bellied Creeper, *Lath. Gen. Syn. Suppl.* ii. p. 164 (1801);  
*id. Gen. Hist. B.* iv. p. 246 (1822).

? *Certhia coccinigaster*, *Lath. Ind. Orn. Suppl.* p. 35 (1801); *Shaw, Gen. Zool.* viii. p. 216 (1811).

*L'Éclatant*, *Aud. et Vieill. Ois. Dor.* ii. p. 15, pl. 2 (1802).

*Le Soui-manga à plumes soyeuses*, *Aud. et Vieill. t. c.* p. 119, pl. 82.

*Suerier éblouissant*, *Levaill. Ois. d'Afr.* vi. p. 163, pl. 295, fig. 1.

*Certhia splendida*, *Shaw, Gen. Zool.* viii. p. 191, pl. 26 (1811).

*Certhia nitida*, *Bechst. Kurze Uebers.* p. 191 (1812).

*Certhia sericea*, *id. t. c.* p. 194.

*Cinnyris splendidus*, *Cuv. Règne Anim.* i. p. 412 (1817); *Vieill. N.*

*Dict. d'Hist. Nat.* xxxi. p. 500 (1819); *Bonn. et Vieill. Enc. Méth.*

ii. p. 587 (1823); *Less. Man. d'Orn.* ii. p. 41 (1828); *Suains. B.*

*W. Afr.* ii. p. 125 (1837); *Bp. C. A.* i. p. 408 (1850); *Cab. Mus.*

*Hein.* i. p. 101 (1850); *Reichenb. Handb. Scansor.* p. 287, pl. 574,

figs. 3908–9 (1854); *Shelley, Monogr. Nect.* p. 201, pl. 62.

*Cinnyris splendens*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 501 (1819);

*Less. Man. d'Orn.* ii. p. 41 (1828); *Reichenb. Handb. Scansor.*

p. 290, pl. 576, fig. 3925 (1854).

*Cinnyris bombicinus*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 509; *Bonn.*

*et Vieill. Enc. Méth.* ii. p. 596 (1823); *Less. Man. d'Orn.* ii. p. 53.

? *Cinnyris coccinigaster*, *Vieill. t. c.* p. 515; *Bonn. et Vieill. t. c.*

p. 588; *Less. t. c.* p. 55.

Blue-rumped Creeper, var. C, *Lath. Gen. Hist. B.* iv. p. 240 (1822).

Glossy Creeper, *Lath. t. c.* p. 253.

*Nectarinia splendida*, *Drapiez, Dict. Class.* xv. p. 511 (1829); *Jard.*

*Monogr. Sun-birds*, pp. 176, 250, pl. 5 (1842); *Pucheran, Rev. et*

*Mag. Zool.* 1853, p. 486; *Hartl. Orn. W.-Afr.* p. 46 (1857); *id. J.*

*f. O.* 1861, p. 108; *Layard, B. S. Afr.* p. 82 (1867); *Reichenow,*

*J. f. O.* 1875, p. 30.

*Cinnyris lucidus*, *Less. Traité d'Orn.* i. p. 295 (1831); *Pucheran, Rev. et Mag. Zool.* 1853, p. 486; *Hartl. J. f. O.* 1855, p. 423.  
*Nectarinia nitida*, *Nordm. in Erm. Reise um d. Erde, Atlas*, p. 6 (1835).  
 ? *Nectarinia coccinigaster*, *Gray, Gen. B.* i. p. 98 (1847).  
*Nectarinia splendens*, *Schleg. Handl. Dierk.* p. 236 (1857).

*Adult male.* This species is remarkable for its extremely long upper tail-coverts, the longest of which extend almost as far as the tip of the tail. Head all round, throat, and fore neck metallic purplish violet; hind neck and sides of neck bluish green in position B, purple in C; mantle and back brilliant golden green or bluish green respectively; chest and upper breast mottled with crimson-red and with metallic violet; pectoral tufts very pale yellow; greater part of breast and rest of underparts deep black; edge of wing and under tail-coverts metallic, varying from green to violet.

*Adult female.* Pale olive-brown above; tail dark brown, with narrow pale tips; underparts yellow; feathers of chest and flanks with pale brownish centres, which give these parts a slightly mottled appearance; throat and under wing-coverts pale yellow.

*Young males* are like the females, but have the throat and fore neck dull blackish.

*Immature males* have the throat and fore neck metallic purple; the crown is the last to assume the metallic plumage.

♂. Culmen 1·0 inch, wing 2·7–2·9, tail 1·7, tarsus 0·7.

♀. „ 0·95 „ „ 2·55–2·6 „ 1·5 „ 0·65.

*Hab.* West Africa.

a, b. Ad. in spirit.	West Africa.	Governor Ussher [P.].
c. ♂ ad. st.	Senegal.	Purchased.
d. ♂ ad. st.	Senegal.	M. Verreaux.
e. ♂ imm. sk. (moulting).	Senegal, Aug. 1870.	R. B. Sharpe, Esq.
f. ♂ imm. sk. (moulting).	Bissao.	R. B. Sharpe, Esq.
g. [♂] juv. sk.	Bissao.	R. B. Sharpe, Esq.
h, i. ♀ ad. sk.	Cape Verd ( <i>Laglaize</i> ).	R. B. Sharpe, Esq.
k. ♂ ad. sk.	Sierra Leone ( <i>Fraser</i> ).	R. B. Sharpe, Esq.
l. ♂ ad. sk.	Sierra Leone.	L. Fraser, Esq. [C.].
m. ♂ ad.; n. ♂ juv. sk.	Abrobonko, Fantee, Jan. 14, 1871 ( <i>Ussher</i> ).	R. B. Sharpe, Esq.
o, p. ♀ ad. sk.	Fantee ( <i>Aubinn</i> ).	R. B. Sharpe, Esq.
q. ♂ imm.; r. ♀ ad. sk.	Fantee.	R. B. Sharpe, Esq.
s, t. ♂ juv. sk.	Cape Coast, March 20, 1871 ( <i>Ussher</i> ).	R. B. Sharpe, Esq.
u. ♂ ad. sk.	Denkera, Feb. 1872 ( <i>Blissett</i> ).	R. B. Sharpe, Esq.
v. ♀ ad. sk.	Elmina, April 1874 ( <i>Blissett</i> ).	R. B. Sharpe, Esq.
w. ♂ ad. sk.	Accra ( <i>Smith</i> ).	R. B. Sharpe, Esq.
x. ♂ ad. sk.; y. ♂ imm. sk.	Ashantee.	J. Gould, Esq.
z. ♂ ad. sk.	River Volta ( <i>Ussher</i> ).	R. B. Sharpe, Esq.
a'. ♂ ad. sk.	Abeokuta.	F. Nicholson, Esq. [P.].
b'. ♀ ad. sk.	Gaboon ( <i>Du Chaillu</i> ).	R. B. Sharpe, Esq.

12. *Cinnyris habessinica*.

- Nectarinia habessinica*, *Heimpr. & Ehr. Symb. Phys. Zool.* i. Av. pl. 4 (1828); *Müll. J. f. O.* 1855, p. 15; *Heugl. Faun. roth. Meer.* p. 21 (1861); *Finsch, Trans. Zool. Soc.* vii. p. 229 (1869); *id. & Hartl. Vög. Ost-Afr.* p. 221 (1870); *Blanf. Geol. & Zool. Abyss.* p. 351 (1870); *Heugl. Orn. N.O.-Afr.* p. 229 (1871).
- Nectarinia purpurata*, *Kittl. Kupf. Nat. Vög.* p. 22, pl. 28, fig. 1 (1833); *Gray, Gen. B.* i. p. 98 (1847); *Heugl. J. f. O.* 1864, p. 262.
- Cinnyris gularis*, *Rüpp. Neue Wirbelth.* p. 88, pl. 31, fig. 2 (1835); *Ferr. et Gal. Voy. Abyss.* iii. p. 248 (1847); *Bp. C. A. i.* p. 406 (1850); *Reichenb. Handb. Scans.* p. 291, pl. 577, fig. 3931 (1854).
- Cinnyris abessinica*, *Rüpp. Neue Wirbelth.* p. 90 (1835).
- Nectarinia habessinica*, *Rüpp. Syst. Uebers.* p. 28 (1845); *Heugl. Syst. Uebers.* p. 20 (1856).
- ? *Souï-manga à collier*, *Lefebvre, Voy. Abyss., Ois.* p. 88 (1845-50).
- Nectarinia gularis*, *Gray, Gen. B.* i. p. 98 (1847); *Heugl. J. f. O.* 1864, p. 262.
- Nectarinia abyssinica*, *Gray, Gen. B.* i. p. 98 (1847); *Selat. & Strickl. Contr. Orn.* 1852, p. 124.
- Cinnyris abyssinicus*, *Ferr. et Gal. Voy. Abyss.* iii. p. 248 (1847); *Ant. & Salvad. Ann. Mus. Civ. Gen.* iv. p. 451 (1873).
- Cinnyris habessinicus*, *Bp. C. A. i.* p. 406 (1850); *Cab. Mus. Hein. i.* p. 101 (1850); *Reichenb. Handb. Scansor.* p. 288, pl. 574, figs. 3910-12 (1854); *Shelley, Monogr. Nect.* p. 205, pl. 63.
- Cinnyris purpuratus*, *Bp. C. A. i.* p. 406; *Reichenb. t. e.* pl. 576, fig. 3924.
- Cinnyris habessinicus*, *Bp. C. R.* 1854, p. 265.
- Nectarinia lucida*, *Licht. Nomencl. Av.* p. 55 (1854); *Heugl. J. f. O.* 1864, p. 262.
- Nectarinia habessinica*, *Gray, Hand-l. B.* i. p. 106, no. 1280 (1869).

*Adult male.* Similar to *C. splendida*. Upper tail-coverts short, covering less than half of the tail; only the anterior half of the crown metallic purplish blue; whole fore neck, throat, and chest brilliant metallic green; a very broad band of crimson-red across the chest, only a few feathers of which have blue bars; pectoral tufts pale yellow.

*Adult female.* General colour above pale earthy brown; quills light brown, with pale edges to the inner webs; throat, cheeks, supercilia, and under wing-coverts whitish; rest of underparts very pale earthy brown; centre of abdomen washed with pale yellow; tail-feathers blackish brown, some with white tips.

♂. Culmen 0.85 inch, wing 2.6-2.7, tail 1.8-1.9, tarsus 0.65.

*Hab.* North-eastern Africa.

a. ♂ ad. sk.	Abyssinia.	Purchased.
b. ♂ ad. st.	Shoa ( <i>Harris</i> ).	India Museum.
c. ♂ ad. sk.	Alia Amba, Feb. 1842 ( <i>Harris</i> ).	India Museum.
d, e. ♂ ♀ ad. sk.	Senafé Pass, 3000 feet, Feb. 17, 1868.	W. T. Blanford, Esq. [C.].
f. ♂ imm. sk.	Undul Wells, 3500 feet, May 31, 1868.	W. T. Blanford, Esq. [C.].

<i>g, h.</i> ♂ ; <i>i, k.</i> ♀ ad. sk.	Eylet ( <i>Ester</i> ).	R. B. Sharpe, Esq.
<i>l.</i> ♂ ad. sk.	Maragaz, July 29, 1868 ( <i>Jesse</i> ).	R. B. Sharpe, Esq.
<i>m.</i> ♂ ad. sk.	Hor Tamanib, Nubia ( <i>J. K. Lord</i> ).	R. B. Sharpe, Esq.

### 13. *Cinnyris osea*.

*Cinnyris osea*, *Bp. C. R.* xlii. pt. 2, p. 765 (1856).

*Nectarinia osea*, *Tristram, Ibis*, 1862, p. 277 ; *id. Ibis*, 1864, p. 230 ;  
*id. P. Z. S.* 1864, p. 445 ; *id. Ibis*, 1865, p. 72, pl. 2 ; *Gould, B. Asia*,  
pt. 19 (1867) ; *Elwes, P. Z. S.* 1873, p. 645.

*Cinnyris osea*, *Shelley, Monogr. Nect.* p. 223, pl. 69.

*Adult male.* Forehead, cheeks, throat, fore neck, and chest metallic blue, with a dash of green in position B, and of purple in C ; sides of head and neck, mantle, and back metallic green, darkest on the upper tail-coverts, very dark bluish green in position C ; tail blue-black ; wings and greater coverts, breast, and rest of underparts sooty black ; pectoral tufts bright scarlet and yellow.

The *immature males* acquire the orange pectoral tufts at an early stage.

*Adult female.* Upper parts, including wings, light brown ; tail blackish, with small pale tips, and slightly washed with metallic green ; underparts pale brownish buff, inclining to white on the under tail- and under wing-coverts ; abdomen tinged with pale yellow.

♂. Culmen 0·80 inch, wing 2·05–2·15, tail 1·45, tarsus 0·56.

♀. „ 0·66 „ „ 1·95, „ 1·40, „ 0·56.

*Hab.* Palestine.

<i>a.</i> ♂ ad. sk.	Jericho ( <i>E. Young</i> ).	R. B. Sharpe, Esq.
<i>b.</i> ♂ ad. ; <i>c.</i> ♂ imm. sk.	Jericho, Jan. 1864 ( <i>Tris-</i> <i>tram</i> ).	R. B. Sharpe, Esq.
<i>d, e.</i> ♂ ♀ ad. sk.	Jericho.	Canon Tristram [C.].

### 14. *Cinnyris bouvieri*.

*Cinnyris bouvieri*, *Shelley, Monogr. Nect.* p. 227, pl. 70.

*Adult male.* Intermediate between *C. osea* and *C. bifasciata* or *C. microrhyncha*. Differing from the latter in having orange-yellow pectoral tufts, and the fore neck, cheeks, and chin metallic purple. From *C. osea* it differs simply in having the fore neck and throat metallic green, with no trace of blue (the prevailing colour in *C. osea*), and by the dark reddish pectoral collar like that of *C. bifasciata*.

*Female.* Like the female of *C. osea*, but the underparts are “creamy white, slightly more yellow on the centre of the breast ; lower throat, front, and sides of chest with very indistinct dusky brown central streaks to the feathers” (*Shelley*).

♂. Culmen 0·80 inch, wing 2·05, tail 1·35, tarsus 0·62.

♀. „ 0·70 „ „ 2·0, „ 1·35, „ 0·60.

*Hab.* Landana (Congo).

15. *Cinnyris notata*.

- Grimpereau noir de Madagascar, *Buff. Pl. Enl.* 575. figs. 2, 3.  
*Certhia notata*, *P. L. S. Müll. Syst. Nat., Anhang*, p. 99, no. 32 (1776, ex *Buff.*); *Cass. Pr. Philad. Acad.* 1864, p. 244; *Walden, Ibis*, 1870, p. 24.  
 Loten's Creeper (part.), *Lath. Gen. Syn.* ii. p. 715, no. 16 (1802); *id. Gen. Hist. B.* iv. p. 235, no. 24 (1822).  
 L'Angala-dian, *Aud. et Vieill. Ois. Dor.* ii. p. 19, pls. 3, 4 (1802).  
*Certhia angaladiana*, *Shaw, Gen. Zool.* viii. p. 194, pl. 27 (1811).  
*Cinnyris lotenius*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 493 (1819); (part.), *Bonn. et Vieill. Erc. Méth.* ii. p. 590 (1823); *Less. Man. d'Orn.* ii. p. 25 (1828); *id. Traité d'Orn.* i. p. 294, no. 11 (1831).  
*Cinnyris madagascariensis*, *Quoy et Gaimard, Voy. Astrolabe, Zool.* i. p. 225 (1830).  
*Nectarinia angaladiana*, *Jard. Monogr. Sun-birds*, p. 276 (1843); *Hartl. J. f. O.* 1860, p. 89; *id. Faun. Madag.* p. 52 (1861); *Sclater, P. Z. S.* 1863, p. 162; *A. Newton, P. Z. S.* 1864, p. 835; *Verr. in Vins. Voy. Madag., Ann. B.* p. 2 (1865); *Schl. P. Z. S.* 1866, p. 421; *Grand. Rev. et Mag. Zool.* 1867, p. 355; *Schl. & Poll. Faun. Madag.* p. 67 (1868); *Gray, Hand-l. B.* i. p. 109, no. 1336 (1869); *Sharpe, Cat. Afr. B.* p. 38, no. 354 (1871); *Hartl. Vög. Madag.* p. 89 (1877); *Milne-Edwards & Grand. Faun. Madag., Ois., Atlas*, ii. pls. cvii., cviii., cviii. a.  
*Cinnyris angaladiana*, *Bp. C. A.* i. p. 407, no. 22 (1850).  
*Angaladiana madagascariensis*, *Reichb. Handb. Scansoriae*, p. 285, no. 660, pl. 573. figs. 3902-4 (1854).  
*Nectarinia notata*, *Sharpe, P. Z. S.* 1871, p. 317.  
*Cinnyris notatus*, *Shelley, Monogr. Nect.* p. 195, pl. 59.

*Adult male.* Without any pectoral tufts. Black all round in position A; wings, greater coverts, tail, under wing-coverts, breast, and abdomen uniform blue-black, all the rest of the upper parts brilliant green in position B, brilliant blue with a greenish or purple gloss in C; ulnar coverts and an indistinct band across the chest purplish blue.

*Female.* General colour above earthy brown; feathers of crown with darker centres; wings and their coverts dark brown, some of the feathers with a slight metallic gloss, edged with brownish; inner webs broadly edged with whitish; tail-feathers black, edged with white; supercilium, cheeks, and all the underparts pale yellow, brightest on the abdomen; fore neck and breast much mottled with brown, the centres of the feathers being of that colour.

♂. Culmen 1.15-1.20 inch, wing 1.8, tail 1.8, tarsus 0.65.

♀. Culmen 1.1-1.2 inch, wing 1.5-1.6, tail 1.55-1.70, tarsus 0.63.

*Hab.* Madagascar.

<i>a.</i> ♂; <i>b.</i> ♀ ad. sk.	Madagascar.	R. B. Sharpe, Esq. [C.].
<i>d.</i> ♂ ad. sk.	Central Madagascar.	H. Seebohm, Esq. [P.].
<i>f.</i> [♀] ad. sk.	Mohambo, Madagascar.	T. Gerrard, Esq. [C.].
<i>g.</i> ♂ ad. sk.	Madagascar.	Mr. A. Crossley.

16. *Cinnyris cuprea*.

- Soui-manga tricolor, *Aud. et Vieill. Ois. Dor.* ii. p. 45, pl. 23 (1802).  
 Soui-manga rouge doré, *Aud. et Vieill. tom. cit.* p. 49, pl. 27.  
*Certhia cuprea*, *Shaw, Gen. Zool.* viii. p. 201 (1811).  
*Certhia rubrofusca*, *Shaw, tom. cit.* p. 222 (*ex Aud. et Vieill.* pl. 27).  
*Certhia aurata*, *Bechst. Kurze Uebers.* p. 193 (1812, *ex Aud. et Vieill.* pl. 27).  
*Cinnyris rubrofuscus*, *Cuv. Règne Anim.* i. p. 412 (1817); *Less. Man. d'Orn.* ii. p. 45 (1828); *id. Traité d'Orn.* i. p. 296 (1831); *Bp. C. A.* i. p. 406, no. 21 (1831).  
*Cinnyris nibarus*, *Vieill. N. Diet. d'Hist. Nat.* xxxi. p. 512 (1819); *Bonn. et Vieill. Enc. Méth.* p. 597 (1823).  
*Cinnyris tricolor*, *Vieill. N. Diet. d'Hist. Nat.* xxxi. p. 573 (1819); *Bonn. et Vieill. Enc. Méth.* p. 588 (1823).  
 Red-gilt Creeper, *Lath. Gen. Hist.* iv. p. 258 (1822).  
*Cinnyris nigrogaster*, *Bonn. et Vieill. Enc. Méth.* p. 600 (1823).  
*Cinnyris cupreus*, *Less. Man. d'Orn.* ii. p. 47 (1828); *Bp. C. A.* i. p. 406, no. 3 (1850); *Sharpe & Bowler, Bull. Soc. Zool. France*, 1876, p. 42; *Shelley, Monogr. Nect.* p. 191, pl. 58.  
*Nectarinia nibarus*, *Drapiez, Dict. Class.* xv. p. 514 (1829).  
*Nectarinia tricolor*, *Drapiez, tom. cit.* p. 515.  
*Cinnyris erythronotus*, *Swains. B. W. Afr.* ii. p. 130, pl. 15 (1837).  
*Nectarinia rubrofusca*, *Jard. Monogr. Sun-birds*, p. 187 (1842); *Gray, Hand-l. B.* i. p. 108, no. 1330 (1869).  
*Nectarinia cuprea*, *Jard. Monogr. Sun-birds*, p. 254 (1842); *Hartl. Orn. W.-Afr.* pp. 48, 270 (1857); *Cass. Pr. Philad. Acad.* 1859, p. 35; *Heine, J. f. O.* 1860, p. 136; *Hartl. J. f. O.* 1861, p. 109; *Heugl. Reise weissen Nil*, p. 337 (1869); *Gray, Hand-l. B.* i. p. 108, no. 1328 (1869); *Heugl. Orn. N.O.-Afr.* i. p. 231 (1871); *Reichenow, J. f. O.* 1875, p. 30; *Bocage, Orn. d'Angola*, p. 173 (1877).  
*Aidemonia cuprea*, *Reichb. Handb. Scansoriae*, p. 284, no. 658, pl. 571, figs. 3894-95 (1854).  
*Nectarinia porphyrokema*, *Heugl. Syst. Uebers. Vög. N.O.-Afr.* p. 20 (1856).  
*Nectarinia chalcea*, *Hartl. Ibis*, 1862, pp. 337, 341; *Bocage, Journ. Lisb.* 1866, p. 135, 1876, p. 262; *id. J. f. O.* 1876, p. 418; *id. Orn. d'Angola*, p. 174 (1877).  
*Nectarinia fulgens*, *Würt. Icon. Av.* pl. 58, *teste Heugl. J. f. O.* 1867, p. 300.  
*Aidemonia cuprea*, *Oust. Nouv. Arch. Mus.* i. p. 92 (1878).

*Adult male.* Entirely metallic black in position A. In position B, head and neck all round strong coppery red, changing into beautiful purplish red on the lower back, upper tail- and smaller wing-coverts; all these parts changing into coppery green in position C. No pectoral tufts. Culmen 0.7 inch, wing 2.25, tail 1.7, tarsus 0.6.

*Female.* Upper parts pale earthy brown with an olive tinge; tail blackish, with pale tips; wings brown, edged with olive; underparts, including the under wing-coverts, uniform dingy yellow; inner web of quills edged with white. Wing 2.0-2.1 inches.

*Obs.* The type specimen of *C. chalcea* of Hartlaub does not differ in the slightest from the typical *C. cuprea*.

*Hab.* West Africa.

a. ♂ ad. st.	Gambia.	Governor Rendall [C.].
b. ♀ ad. sk.	Cape Bathurst.	R. B. Sharpe, Esq.
c. ♂ ad. sk.	Casamanze.	R. B. Sharpe, Esq.
d. ♂ ad.; e-i. ♀ ad.; k. ♂ juv. sk.	Fantee.	R. B. Sharpe, Esq.
l, m. ♂ ad. sk.	Ashantee.	J. Gould, Esq. [C.].
n. ♂ ad.; o. ♂ imm. sk.	Elmina ( <i>Blissett</i> ).	R. B. Sharpe, Esq.
p, q. ♂ ad. sk.	Accra ( <i>Smith</i> ).	R. B. Sharpe, Esq.
r. ♂ imm.; s. ♀ ad. sk.	Accra ( <i>Haynes</i> ).	R. B. Sharpe, Esq.
t, u. ♂; v, w. ♀ ad. sk.	River Volta ( <i>Ussher</i> ).	R. B. Sharpe, Esq.
x, y. ♂ ad. sk.	Cape Coast.	Col. Strachan [P.].
z, a'. ♂ ad.; b'. ♂ imm. sk.	Gaboon.	R. B. Sharpe, Esq.
c', d'. ♂ imm. sk.	Gaboon, Aug. 1853 ( <i>Du Chaillu</i> ).	R. B. Sharpe, Esq.
e'. ♂ ad. sk.	Kabinda, Congo, Aug. 1872.	Commander Sperling.
f'. ♂ ad. sk.	Cambambe, Angola.	J. J. Monteiro, Esq. [C.]. (Type of <i>N.</i> <i>chalcona</i> , Hartl.)
g'. Ad. in spirit.	Fantee.	R. B. Sharpe, Esq. [P.].

### 17. *Cinnyris asiatica*.

- Purple Indian Creeper, *Edwards, Gleanings Nat. Hist.* ii. p. 116, pl. 265 (1760).
- ? *Certhia currucaria*, *Linm. S. N.* i. p. 185, no. 6 (1760); *P. L. S. Müll. S. N.* ii. p. 256, no. 6 (1773); *Gm. S. N.* i. p. 474, no. 6 (1788); *Lath. Ind. Orn.* i. p. 285, no. 15 (1790); *Shaw, Gen. Zool.* viii. p. 221 (1811).
- ? Grey Creeper, *Lath. Gen. Syn.* i. p. 714 (1781); *id. Gen. Hist.* iv. p. 231, no. 19 (1822).
- Yellow-winged Creeper, *Lath. Gen. Syn. Suppl.* i. p. 133, no. 59 (1787); *id. Gen. Hist.* iv. p. 250, no. 44 (1822).
- Certhia asiatica*, *Lath. Ind. Orn.* i. p. 288, no. 22 (1790).
- Certhia chrysoptera*, *Lath. Ind. Orn.* i. p. 299, no. 64 (1790).
- Sugar-Creeper, *Lath. Gen. Syn. Suppl.* ii. p. 159, no. 4 (1801); *id. Gen. Hist.* iv. p. 238, no. 27, cum var. *a* (1822).
- Mahratta Creeper, *Lath. Gen. Syn. Suppl.* ii. p. 164, no. 20 (1801).
- Certhia mahrattensis*, *Lath. Ind. Orn.* ii. *Suppl.* p. 36, no. 3 (1801).
- Souï-manga violet, *Aud. et Vieill. Ois. Dor.* ii. p. 31, pl. 12 (1802).
- Souï-manga à cravatte violette, *Aud. et Vieill. tom. cit.* p. 35, pl. 15.
- Souï-manga à cravatte bleue, *Aud. et Vieill. tom. cit.* p. 53, pl. 31.
- Souï-manga à ceinture orange, *Aud. et Vieill. tom. cit.* p. 56, pl. 34.
- Souï-manga aux ailes jaunes, *Aud. et Vieill. tom. cit.* p. 65.
- Certhia nitens*, *Hermann, Obs. Zool.* p. 137 (1804).
- Certhia saccharina*, *Shaw, Gen. Zool.* viii. p. 258 (1811).
- Certhia cincta*, *Bechst. Kurze Uebers.* p. 193, no. 83 (1812).
- ? *Cinnyris currucaria*, *Cuv. Règne Anim.* i. p. 412 (1817).
- Cinnyris mahrattensis*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 503 (1819); *Bonn. et Vieill. Enc. Méth.* ii. p. 595 (1823); *Sykes, P. Z. S.* 1832, p. 99, no. 136; *Jerd. Madr. Journ.* xi. p. 224, no. 232 (1840).



- Cinnyris chrysopterus*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 493 (1819).  
*Cinnyris virescens*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 497 (1819);  
*Bonn. et Vieill. Enc. Méth.* ii. p. 585 (1823); *Bp. C. A.* i. p. 407  
 (1856); *Reichb. Handb. Scansoriae*, p. 289, no. 669, pl. 575.  
 fig. 3919 (1851).  
*Cinnyris curruccaria*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 500 (1819);  
*Sykes, J. A. S. B.* iii. p. 542 (1834).  
 Red-banded Creeper, *Lath. Gen. Hist. B.* iv. p. 244 (1822).  
 Eastern Creeper, *Lath. Gen. Hist. B.* iv. p. 232, no. 21 (1822).  
*Cinnyris cyaneus*, *Bonn. et Vieill. Enc. Méth.* ii. p. 599, no. 56  
 (1823).  
*Cinnyris indicus*, *Bonn. et Vieill. tom. cit.* p. 599, no. 59 (1823).  
*Cinnyris iodeus*, *Less. Dict. Sc. Nat.* i. p. 24 (1827).  
*Cinnyris curruccaria*, *Less. Man. d'Orn.* ii. p. 28 (1828); *id. Traité  
 d'Orn.* i. p. 297, no. 26 (1831); *Sykes, P. Z. S.* 1832, p. 98, no. 133.  
*Cinnyris chrysopterus*, *Less. Man. d'Orn.* ii. p. 35 (1828).  
*Cinnyris asiaticus*, *Less. tom. cit.* p. 36; *Vieill. N. Dict. d'Hist. Nat.*  
 xxxi. p. 493 (1819); *Bp. C. A.* i. p. 408, no. 37 (1850); *Shelley,  
 Monogr. Nect.* p. 181, pl. 57; *Legge, B. Ceylon*, p. 566 (1879).  
*Cinnyris orientalis*, *Franklin, P. Z. S.* 1831, p. 122, no. 105; *Bulger,  
 P. Z. S.* 1854, p. 257.  
*Nectarinia chrysoptera*, *Drapiez, Dict. Class.* xv. p. 509 (1829).  
 ? *Nectarinia curruccaria*, *Drapiez, tom. cit.* p. 510.  
 ? *Nectarinia sola*, *Drapiez, tom. cit.* p. 514.  
*Cinnyris epauletta*, *Hodgs. Ind. Rev.* ii. p. 272 (1837); *id. J. A. S. B.*  
 xxiv. p. 575 (1855).  
*Cinnyris strigula*, *Hodgs. tom. cit.* p. 272; *Gray, Zool. Misc.* 1844,  
 p. 82.  
*Nectarinia mahrattensis*, *Jard. Monogr. Sun-birds*, pp. 222, 264, pl. 24  
 (1843); *Blyth, J. A. S. B.* xii. p. 973 (1843); *id. J. A. S. B.* xiv.  
 p. 557 (1845); *Gray, Gen. B.* i. p. 98, no. 51 (1847); *Kelaart,  
 Prodromus*, p. 49 (1852).  
*Nectarinia chrysoptera*, *Gray, Gen. B.* i. p. 98, no. 78 (1847).  
*Nectarinia asiatica*, *Blyth, Cat. B. Mus. A. S. B.* pp. 224, 328, no.  
 1360 (1849); *Layard, Ann. Nat. Hist.* (2) xii. p. 175 (1853);  
*Gould, B. Asia*, pt. 8, pl. 2 (1856); *Moore, P. Z. S.* 1857, p. 101;  
*id. P. Z. S.* 1858, p. 497; *Pelzeln, Ibis*, 1868, p. 307.  
*Arachnechthra curruccaria*, *Cab. Mus. Hein.* i. p. 105, no. 572 (1850);  
*Jerd. Ibis*, 1872, p. 17.  
*Arachnechthra asiatica*, *Reichb. Handb. Scansoriae*, p. 295, no. 691,  
 pl. 579. figs. 3939-41 (1854); *Horsf. & Moore, Cat. B. E. I. Co.  
 Mus.* ii. p. 743 (1856); *Jerd. B. Ind.* i. p. 370 (1862); *Beavan,  
 Ibis*, 1865, p. 414; *Walden, Ibis*, 1870, p. 20; *Hume, Nests &  
 Eggs Ind. B.* p. 151 (1873); *Ball, Str. F.* 1874, p. 396; *Hume,  
 Str. F.* 1875, p. 87; *Armstrong, tom. cit.* p. 313; *Blyth & Walden,  
 Cat. Mamm. & B. Burmah*, p. 141 (1875); *Butler, Str. F.* iii.  
 p. 462 (1875); *Hume & Davison, Str. F.* vi. p. 190 (1878).  
*Anthreptes mahrattensis*, *Licht. Nomencl. Ar.* p. 56 (1854).  
*Arachnechthra mahrattensis*, *Reichb. Handb. Scansoriae*, p. 295, no.  
 692 (1854).  
*Cyrtostomus curruccaria*, *Reichb. tom. cit.* p. 308, no. 724, pl. 570.  
 fig. 3890.  
*Arachnothera asiatica*, *Gray, Hand-l. B.* i. p. 112, no. 1381 (1869).  
*Arachnechthra intermedia*, *Hume, Ibis*, 1870, p. 436; *Jerd. Ibis*,  
 1872, p. 18; *Hume, Nests & Eggs Ind. B.* p. 154 (1873).  
*Nectarinia (Arachnechthra) brevisrostris*, *Blanf. Ibis*, 1873, p. 86;  
*id. Eastern Persia*, ii. p. 220, pl. 14 (1876).

*Nectarinia asiatica*, *Hartl. J. f. O.* 1859, p. 293.

*Arachnechthra edeni*, *Anders. Rep. Zool. Yunnan Exp.* p. 661, pl. 47 (1878).

*Adult male in winter plumage.* General colour of the whole bird metallic black in position A. The wings black above, edged with bluish; under surface dark brown, without any pale inner edges; tail-feathers uniform blue-black; all the rest of the upper parts, the sides of the neck, and the under tail-coverts dark purplish blue in position B, dark bluish green in position C; chin and throat dark purplish blue; the terminal parts of many of the feathers of the chest maroon-red, thus producing an indistinct but conspicuous collar across the chest; the large pectoral tufts orange and bright yellow; breast, abdomen, flanks, and under wing-coverts with a velvety purple gloss.

*Obs.* Amongst twenty-one specimens of perfectly adult males in the British Museum, two (one from Kamptee and the other from Simla) have all the tail-feathers but the central pair tipped with white; this occurs again, although in a much smaller degree, in the two specimens from Baluchistan, the types of *C. brevirostris*. These white tips seem to be retained from the plumage of the young bird, since out of eleven immature males in the collection six have these tips developed.

In *spring* and in *summer* the maroon-red on the chest fades away, not by the tips of the feathers being worn off. There are ten specimens with the maroon collar, two of which were shot in January; nine without any trace of the collar, one being shot in May; five with slight traces of maroon on some of the feathers. Only three of the whole collection are dated.

This collar has no correlation with geographical distribution. My reason for believing that the maroon collar is part of the winter plumage is that a similar collar is constant in such allied species in which there is less differentiation in colour between the sexes, as in *C. souimanga*.

*Adult female.* Above pale earthy brown with a slight olive tinge; wings brown; inner web of quills edged with pale buff; tail blackish, with large white tips to most of the feathers; all the underparts uniform yellow, this colour inclining to white on the under tail- and wing-coverts and on the edge of the wing; thighs dull yellow; sides slightly tinged with greenish.

*Immature male.* The metallic colours begin along the throat and on the ulnar bend; lastly they appear on the lower back and on the crown of the head.



Bill of *Cinnyris asiatica*.

*Hab.* Ceylon and Indian peninsula.

## Measurements :—

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂. Simla .....	0·81	2·25	1·4	0·6
♂. Nepal .....	0·78	2·3	1·45	0·6
♂. Pegu .....	0·75	2·15	1·35	0·52
♂. Pegu .....	0·73	2·2	1·4	
♂. Cashmere .....	0·70	2·2	1·35	0·6
♂. Kandahar .....	0·66	2·2	1·4	0·6

*C. brevirostris.*

♂. Baluchistan .....	0·68	2·2	1·4	0·6
♂. Baluchistan .....	0·65	2·2	1·4	0·6
♀. Baluchistan .....	0·62	2·05	1·2	0·54
♀. ( <i>C. asiatica</i> ) .....	0·7	2-2·1	1·2	0·6

<i>a.</i> ♂ ad. st.; <i>b.</i> ♂ imm. st.	India.	Dr. Burns [P.].
<i>e.</i> ♂ ad. sk.	Southern Afghanistan, May 19, 1881.	Lt.-Col. Swinhoe [P.].
<i>d.</i> ♂ ad. ak.	Cashmere.	E. M. Langworthy, Esq. [P.].
<i>e, f, g, h.</i> ♂ imm. et juv. sk.	Scinde ( <i>Dr. H. Gould</i> ).	India Museum.
<i>i.</i> ♂ ad. sk.	Simla.	E. D. Godman and O. Sal- vin, Esqrs. [P.].
<i>k.</i> ♂ imm. sk.	Rajkote, Kattiawar, Sept. 18, 1871.	Major Hayes Lloyd [P.].
<i>l.</i> ♂ ad. sk. (moul- ting).	Himalayas ( <i>Griffiths</i> ).	India Museum.
<i>m, n.</i> ♂ ad. sk.	Kumaon ( <i>Strachey</i> ).	India Museum.
<i>o.</i> ♂ ad.; <i>p.</i> Juv. sk.	Nepal ( <i>B. H. Hodgson</i> ).	India Museum.
<i>q, r, s.</i> ♂; <i>t, u.</i> ♀ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
<i>v, w.</i> ♂ juv. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
<i>x, y.</i> ♂ ad. sk.	Behar.	B. H. Hodgson, Esq. [P.].
<i>z.</i> ♂ imm. sk.	Saugor ( <i>W. T. Hooper</i> ).	India Museum.
<i>a'.</i> ♂ ad.; <i>b'.</i> ♂ imm. sk.	Deccan ( <i>Sykes</i> ).	India Museum.
<i>e', d'.</i> ♂ ad. sk.	Khandeish.	India Museum.
<i>e', f'.</i> ♂ ad.; <i>g', h'.</i> ♂ imm. sk.	Madras.	Sir W. Elliott [P.].
<i>i'.</i> ♀ ad. sk.	Madras.	Gould Collection.
<i>k', l', m'.</i> ♂; <i>n'.</i> ♀ ad. sk.	Kamptee.	Dr. R. B. Hinde [P.].
<i>o'.</i> ♂ imm. sk.; <i>p'.</i> ♀ ad. sk.	Pondichery.	F. D. Godman and O. Sal- vin, Esqrs. [P.].
<i>q', r'.</i> ♂ ad.; <i>s'.</i> ♂ imm. sk.	Lower Pegu, Jan. 1880.	E. W. Oates, Esq. [C.].

Subsp. *a.* *Cinnyris brevirostris.*

Nectarinia (Arachnechthra) brevirostris, *Blanford, Ibis*, 1873, p. 86;  
*id. Eastern Persia*, ii, p. 220, pl. 14.  
*Cinnyris asiaticus*, pt., *Shelley, Monogr. Nect.*, p. 182.

Differs from *C. asiatica*, which it represents in Baluchistan and in Southern Persia, by its much smaller bill and by the different coloration of the *female*. The latter has the underparts silky white, the pale yellow colour being restricted to the cheeks and to the centre of the throat; chin white; region of pectoral tufts slightly tinged with greenish.



Bill of *Cinnyris brevirostris*.

Specimens from Cashmere and Afghanistan seem to be intermediate between the eastern (*C. asiatica typica*) and this western form.

- a, b. ♂ ♀ ad. sk. Bampur, Baluchistan, 2000 feet, April 5, 1872. W. T. Blanford, Esq. [C.]  
 c. ♂ imm. sk. Bahu Kelat, Baluchistan, Feb. 4, 1872. W. T. Blanford, Esq. [C.]  
 d. ♂ ad. sk. Baluchistan, 4000 feet, March 24, 1872. W. T. Blanford, Esq. [C.]

### 18. *Cinnyris lotenia*.

- Certhia lotenia*, *Linn. S. N.* i. p. 188 (1766); *P. L. S. Müller, S. N.* ii. p. 260 (1773); *Gm. S. N.* i. p. 483 (1788); *Lath. Ind. Orn.* i. p. 286 (1790).  
 Le Soui-manga pourpré, *Buff. Hist. Nat. Ois.* v. p. 513 (1778); *Aud. et Vieill. Ois. Dor.* ii. p. 29, pl. 11 (1802).  
 Le Soui-manga de toutes couleurs, *Buff. Hist. Nat. Ois.* v. p. 513 (1778); *Aud. et Vieill. Ois. Dor.* ii. p. 67 (1802).  
 Loten's Creeper (pt.), *Lath. Gen. Syn.* ii. p. 715 (1782); *id. Gen. Hist. B.* iv. p. 235 (1822).  
 ? Sickle-billed Creeper, *Lath. Gen. Syn.* ii. p. 716 (1782).  
*Certhia polita*, *Sparrm. Mus. Carls.* ii. pl. 59 (1786); *Lath. Ind. Orn.* i. p. 287 (1790).  
 Polished Creeper, *Lath. Gen. Syn. Suppl.* ii. p. 159 (1787); *id. Gen. Hist. B.* iv. p. 245 (1822).  
 ? *Certhia falcata*, *Gm. S. N.* i. p. 470 (1788); *Lath. Ind. Orn.* i. p. 282 (1790).  
*Certhia omnicolor*, *Gm. S. N.* i. p. 483 (1788, *ex Seba*, pl. 69); *Lath. Ind. Orn.* i. p. 286 (1790); *Shaw, Gen. Zool.* viii. p. 200 (1811).  
 Le Soui-manga cuivré, *Aud. et Vieill. Ois. Dor.* ii. p. 64 (1802).  
 ? Le Soui-manga de Macassar, *Aud. et Vieill. t. c.* p. 66.  
 Le Soui-manga au bec en faucille, *Aud. et Vieill. t. c.* p. 67.  
*Certhia purpurata*, *Shaw, Gen. Zool.* viii. p. 201, pl. 28 (1811, *ex Edwards*).  
*Cinnyris omnicolor*, *Cuvier, Règne Anim.* i. p. 412 (1817); *Less. Man. d'Orn.* ii. p. 52 (1828).  
*Cinnyris purpuratus*, *Cuv. Règne Anim.* i. p. 412 (1817); *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 509 (1819); *Less. Man. d'Orn.* ii. p. 53 (1828).  
*Cinnyris lotenius*, *Cuv. Règne Anim.* i. p. 412 (1817); *Bp. C. A.* i. p. 408 (1850); *Shelley, Monogr. Nect.* p. 177, pl. 56.

- ? *Cinnyris falcatus*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 494 (1819); *Bonn. et Vieill. Enc. Méth.* ii. p. 599 (1823).  
*Cinnyris politus*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 500 (1819, *ex Sparrm.*); *Aud. et Vieill. Enc. Méth.* ii. p. 586 (1823); *Less. Man. d'Orn.* ii. p. 29 (1828); *id. Traité d'Orn.* i. p. 296 (1831); *Jerd. Madras Journ.* xi. p. 225 (1840).  
 Green Gold Creeper, *Lath. Gen. Hist. B.* iv. p. 237 (1822).  
 ? *Cinnyris macassariensis*, *Aud. et Vieill. Enc. Méth.* ii. p. 592 (*ex Seba*, pl. 63. fig. 3).  
*Nectarinia lotenia*, *Jerd. Monogr. Sun-birds*, pp. 220, 263, pl. 23 (1842); *Blyth, J. A. S. B.* xii. p. 978 (1843); *Gray, Gen. B.* i. p. 98 (1847); *Blyth, Cat. B. Mus. As. Soc.* p. 224 (1849); *Gould, B. As.* pt. viii. pl. 3 (1856).  
*Nectarinia omnicolor*, *Gray, Gen. B.* i. p. 99 (1847).  
*Arachnechthra lotenia*, *Cab. Mus. Hein.* i. p. 105 (1850); *Reichenb. Handb. Scansor.* p. 294, pl. 579. figs. 3937-38 (1854); *Horsf. & Moore, Cat. B. E.I. Co. Mus.* ii. p. 743 (1858); *Jerd. B. Ind.* i. p. 372 (1862); *Walden, Ibis*, 1870, p. 23; *Holdsworth, P. Z. S.* 1872, p. 434; *Legge, B. Ceylon*, p. 563.  
*Arachnothera lotenia*, *Gray, Hand-l. B.* i. p. 112, no. 1382 (1869).

*Adult male.* In general distribution of colours very similar to that of *C. asiatica*, but the breast, abdomen, flanks, and under wing-coverts sooty brown instead of black, and without any velvet gloss; pectoral tufts pure yellow; the maroon cross band between the purple-green chest and the brown breast is well developed. The gloss of the metallic parts varies (in position B) much in different specimens, from dark bluish green to strong purple. Bill much larger and more curved. Culmen 1·1-1·3 inch, wing 2·15-2·3, tail 1·5, tarsus 0·65.

*Female* intermediate between that of *C. brevirostris* and *C. asiatica*, in having all the underparts uniform pale silky yellow. Culmen 1 inch, wing 2·1.



Bill of *Cinnyris lotenia*.

*Hab.* Southern India and Ceylon.

<i>a.</i> ♂ ad. st.	Ceylon.	Purchased.
<i>b, c, d.</i> ♂ ad. sk.	Ceylon.	Gould Collection.
<i>e.</i> ♂ ad.; <i>f.</i> ♂ imm. sk.	Ceylon.	Purchased.
<i>g.</i> ♂ imm. sk.	Ceylon.	E. L. Layard, Esq. [C.].
<i>h.</i> ♂ imm. sk.	Deccan ( <i>Sykes</i> ).	India Museum.
<i>i, k.</i> ♂ ♀ ad. sk.	Pondichery.	F. D. Godman and O. Salvin, Esqrs. [P.].

III. THIRD GROUP (*Nectarophila*).

Whole crown and nape, fore neck and lower back, upper tail-coverts and ulnar coverts metallic; no pectoral tufts; nares beset with short feathers. With the exception of *C. minima* (?), the species of this group have no special winter plumage.—Indo-Malayan.

19. *Cinnyris minima*.

- Cinnyris minima*, *Sykes, P. Z. S.* 1832, p. 99; *Sykes, J. A. S. B.* iii. p. 543 (1834); *Jerdon, Madras Journ.* xi. p. 226, no. 235 (1840); *Bp. C. A.* i. p. 409, no. 47 (1850); *Legge, B. Ceylon*, p. 572 (1879); *Shelley, Monogr. Nect.* p. 143, pl. 46.
- Nectarinia minima*, *Tickell, J. A. S. B.* ii. p. 277, no. 38 (1838); *Blyth, op. cit.* xii. p. 978 (1843); *Gray, Gen. B.* i. p. 98 (1847); *Blyth, Cat. B. Mus. As. Soc.* p. 226, no. 1369 (1849); *Layard, Ann. Nat. Hist.* 2nd ser. xii. p. 175, no. 60 (1853); *Hartl. J. f. O.* 1854, p. 165.
- Arachnothera minima*, *Gray, Hand-l. B.* i. p. 112, no. 1395 (1869).
- Nectarinia minuta*, *Jard. Monogr. Sun-birds*, pp. 224, 265, fig. title-page (1843, lapsu cal.); *Kelaart, Prodrum. Cat.* p. 119 (1852).
- Nectarophila minima*, *Reichb. Handb. Scansorie*, p. 282, no. 654, pl. 568, figs. 3873-74 (1854); *Walden, Ibis*, 1870, p. 40.
- Leptocoma minima*, *Horsf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 742, no. 1869 (1856); *Jerd. B. Ind.* i. p. 369 (1862); *Hume, Str. F.* 1877, p. 42; *id. Nests & Eggs Ind. B.* i. p. 150 (1873); *Fairbank, Str. F.* iv. p. 392 (1876).

*Adult male* (type of species). Entire crown metallic green; throat metallic violet; ear-coverts and loreal region black; hind neck and sides of neck, and a broad collar across the fore neck and chest, back and wing-coverts rich blood-red; rump and upper tail-coverts showing a strong metallic violet gloss in position B, whilst they look non-metallic blood-red in positions A and C. Pectoral tufts, although pale lemon-yellow, well distinguishable from the breast, which, like the rest of the underparts, is white, washed with pale yellow. Culmen 0.58 inch, wing 1.9, tail 1.2, tarsus 0.52.

*Males* in winter plumage resemble the female, but "retain invariably the amethystine rump and usually a little red about the shoulder of the wing" (*Hume*).

*Female*. Upper parts olive-brown; tail blackish brown, the outer edges of the feathers washed with reddish olive; rump and upper tail-coverts dusky red; underparts pale yellowish buff. Wing 1.8-1.95 inch. (*Hume*.)

*Hab.* South-western India and Ceylon.

a, b. ♂ imm. sk. (moulting).	Deccan ( <i>Sykes</i> ).	India Museum.
c. ♂ ad. sk.	Deccan ( <i>Sykes</i> ).	India Museum [P.] (Type of species.)
d. ♂ ad. sk.	Coonoor, Nilgherries, Oct. 7, 1881.	W. Davison, Esq. [P.]
e. ♂ ad. sk.	Coonoor, Feb. 7, 1883.	W. Davison, Esq. [P.]

20. *Cinnyris sperata*.

- Le Grimpereau pourpré des Philippines, *Briss. Orn.* iii. p. 655, no. 27, pl. 31. figs. 2, 3 (1760).
- Certhia sperata*, *Linn. S. N.* i. p. 186, no. 13 (1766, *ex Briss.*); *P. L. S. Müll. S. N.* ii. p. 257, no. 13 (1773); *Gm. S. N.* i. p. 477, no. 13, et var.  $\beta$  (1788); *Lath. Ind. Orn.* i. p. 283, no. 8, et var.  $\gamma$  (1790); *Shaw, Gen. Zool.* viii. p. 206 (1811).
- Grimpereau des Philippines, *Daubent. Pl. Enl.* pl. 246. figs. 1, 2.
- Certhia jugularis*, *P. L. S. Müll. S. N., Anhang*, p. 98, no. 29 (1776, *ex Daubent.*); *Cass. Pr. Acad. Philad.* 1864, p. 244.
- Troisième Grimpereau de l'Isle de Luçon, *Sonn. Voy. Nouv. Guin.* p. 63, pl. 30. fig. D (1776).
- Souï-manga maron pourpré à poitrine rouge, *Montb. Hist. Nat. Ois v.* p. 497 (1778).
- Le Grimpereau ou Souï-manga à gorge violette et poitrine rouge, *Montb. tom. cit.* p. 499.
- Red-breasted Creeper, var. B, *Lath. Gen. Syn. B.* p. 708 (1781, *ex Sonn.* pl. 30. fig. D).
- Red-breasted Creeper, *Lath. Gen. Syn. B.* ii. p. 706, no. 8 (1781); *id. Gen. Hist. B.* iv. p. 219, no. 8 (1822).
- Certhia chalybea*, *Scop. Flor. et Faun. Insub.* ii. p. 91, no. 68 (1786, *ex Sonn.*).
- Souï-manga à gorge violette, *Audeb. et Vieill. Ois. Dor.* ii. pp. 55, 56, pls. 32, 33 (1802).
- Certhia affinis*, *Shaw, Gen. Zool.* viii. p. 208 (1811, *ex Audeb. et Vieill.*).
- Certhia pusilla*, *Bechst. Kurze Uebers.* p. 178, no. 8 (1812).
- Cinnyris speratus*, *Cuv. Règne Anim.* i. p. 412 (1817); *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 505 (1819); *Bonn. et Vieill. Enc. Méth.* ii. p. 593 (1823); *Less. Man. d'Orn.* ii. p. 56 (1828); *id. Traité d'Orn.* i. p. 297, no. 24 (1831); *Shelley, Monogr. Nect.* p. 131, pl. 43.
- Nectarinia coccinigastra*, *Temm. Pl. Col.* pl. 388, fig. 3 (1826); *Drapiez, Dict. Class.* xv. p. 512; *Gray, Gen. B.* i. p. 28 (1847); *Von Martens, J. f. O.* 1866, p. 12, no. 48 (1866); *id. Preuss. Exped. Ost-Asien*, p. 189.
- Cinnyris coccinigaster*, *Less. Man. d'Orn.* ii. p. 30 (1828).
- Nectarinia sperata*, *Drapiez, Dict. Class.* xv. p. 511 (1829).
- Nectarinia philippensis* (part.), *Meyen, Reise, Zool.* p. 206 (1834).
- Certhia zeylonica*, *Meyen. tom. cit.* p. 206 (*nec Linn.*).
- Nectarinia affinis*, *Jard. Monogr. Sun-birds*, pp. 216, 262, pl. 61 (1843).
- Leptocoma sperata*, *Cab. Mus. Hein.* i. p. 105, no. 569 (1850); *Bp. Compt. Rend.* 1854, p. 265.
- Anthreptes expectata*, *Licht. Nomencl. Av. Mus. Berol.* p. 56 (1854).
- Anthreptes sperata*, *Licht. t. c.* p. 56 (1854).
- Chalcomitra pusilla*, *Reichb. Handb. Scansoriæ*, p. 280, no. 649, pl. 568. figs. 3871-72 (1854).
- Nectarophila sperata*, *Reichb. tom. cit.* p. 281, no. 651; *Walden, Ibis*, 1870, p. 42; *id. Tr. Z. S.* ix. p. 200 (1875).
- Nectarophila affinis*, *Reichb. Handb. Scansoriæ*, p. 281, no. 651, pls. 551, 568. figs. 3879-80 et 4066-67 (1854).
- Nectarophila coccinigastra*, *Reichb. tom. cit.* p. 283, no. 652, pl. 569. fig. 3882.
- Arachnothera sperata*, *Gray, Hand-l. B.* i. p. 112, no. 1393 (1869).

*Adult male.* In position B crown and nape rich metallic coppery green; lower back, upper tail-coverts, and nalar coverts dark purplish green, throat and fore neck rich purplish blue; in position C these parts changing into brilliant dark green and into purplish red respectively. Ocular region and ear-coverts black; tail blue-black with a semi-metallic gloss; sides of neck and hind neck, mantle, scapulars, and median coverts dark blood-red; quills and most of the coverts brownish black, externally edged with the colour of the back; edge of wing and under wing-coverts sooty black; upper breast rich carmine-red; abdomen and flanks dusky yellowish olive, the thighs and under tail-coverts inclining to yellow. Culmen 0.75-0.8 inch, wing 2.1-2.2, tail 1.2, tarsus 0.55.

*Female.* Upper parts yellowish olive, inclining to greenish on the crown; sides of head and ear-coverts grey; a superciliary streak, cheeks, and throat white; rest of underparts yellow; wings and wing-coverts externally edged with reddish brown.

*Hab.* Philippine Islands.

<i>a, b.</i> ♂ ad. sk.	Philippines.	Hugh Cuming, Esq. [C.].
<i>c.</i> ♂ ad. sk.	Philippines.	Purchased.
<i>d.</i> ♂ ad. sk.	Guimaras.	Prof. Steere [C.].
<i>e.</i> ♂ ad. sk.	Manila.	J. Gould, Esq.
<i>f.</i> ♂ ad. sk.	Manila.	Gould Collection.

## 21. *Cinnyris julia*.

*Nectarophila julia*, Tweeddale, *P. Z. S.* 1877, pp. 535, 547; 1878, p. 951.

*Cinnyris julia*, Shelley, *Monogr. Nect.* p. 135, pl. 44.

Like *C. sperata*, but with the breast yellow instead of red; the whole breast gamboge-yellow, with a few feathers along the centre washed with red; abdomen and flanks white; rest of underparts pale olive-yellow; inner web of quills with faintly white edges.

The *female* resembles that of *C. sperata*.

	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.
♂ . . . . .	0.65-0.70	2.0	1.15	0.55
♀ . . . . .	0.65	1.9	1.10	0.52

*Hab.* Islands of Malanipa and Mindanao, Philippine archipelago.

*Obs.* The scarlet on the breast may be altogether absent, as is shown by some specimens.

<i>a, b.</i> ♂; <i>e.</i> ♀ ad. sk.	Malanipa.	'Challenger' Expedition. (Types of species.)
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## 22. *Cinnyris zeylonica*.

*Certhia zeylonica*, Linn. *S. N. i.* p. 188, no. 23, "Ceylon" (1766); *Gm. S. N. i.* p. 482, no. 23 (1788); *Lath. Ind. Orn. i.* p. 285, no. 13 (1790).

Ceylonese Creeper, *Lath. Gen. Syn. ii.* p. 712, no. 13 (1781); *id. Gen. Hist. B. iv.* p. 227, no. 16 (1822).



- Certhia lepada*, *Sparrm. Mus. Carls.* i. pl. 35 (1786).  
 Soui-manga à ceinture marron, *Aud. et Vieill. Ois. Dor.* ii. pp. 37, 38, pls. 16, 17 (1802).  
 Soui-manga brun et blanc, *Aud. et Vieill. tom. cit.* p. 118, pl. 81.  
*Certhia flaviventris*, *Herm. Obs. Zool.* p. 136 (1804).  
 ? *Certhia citrinella*, *Herm. tom. cit.* p. 137.  
*Certhia zeylonica*, *Shaw, Gen. Zool.* viii. p. 203 (1811).  
*Certhia dubia*, *Shaw, Gen. Zool.* viii. p. 204 (1811).  
*Cinnyris dubia*, *Cuv. Règne Anim.* i. p. 412 (1817).  
*Cinnyris lepada*, *Cuv. tom. cit.* p. 412; ?*Sykes, P. Z. S.* 1832, p. 98, no. 132.  
*Cinnyris sola*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 512, "Pondicherry" (1819); *id. Enc. Méth.* ii. p. 597 (1823); *Less. Man. d'Orn.* ii. p. 51 (1828); *Jerd. Madr. Journ.* xi. p. 226, no. 234 (1840); *Pucheran, Rev. et Mag. de Zool.* 1853, p. 483.  
*Cinnyris zeylonica*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 507 (1819); *Hahn, Vög.* pt. 7, pl. 4 (1820); *Vieill. Enc. Méth.* ii. p. 594 (1823); *Less. Man. d'Orn.* ii. p. 61 (1828); *Bp. C. A.* i. p. 409, no. 46 (1850); *Hume, Str. F.* v. p. 270 (1877); *Cripps, tom. cit.* p. 267; *Legge, B. Ceylon*, p. 569 (1879); *Shelley, Monogr. Nect.* p. 137, pl. 45.  
*Cinnyris nigroalbus*, *Less. Dict. Sc. Nat.* i. p. 6 (1827, *ex Aud. et Vieill.* pl. 81); *id. Man. d'Orn.* ii. p. 26 (1828).  
*Nectarinia nigralba*, *Drapiez, Dict. Class.* xv. p. 510 (1829).  
*Cinnyris solaris*, *Less. Traité d'Orn.* p. 297, no. 28 (1831); *Pucheran, Rev. et Mag. de Zool.* 1853, p. 488.  
 ? *Cinnyris lepada*, *Sykes, J. A. S. B.* iii. p. 543 (1834).  
*Nectarinia zeylonica*, *Jard. Monogr. Sun-birds*, pp. 213, 261, pl. 20 (1843); *Blyth, J. A. S. B.* xii. p. 976 (1843); *Gray, Gen. B.* i. p. 98 (1847); *Blyth, Cat. B. Mus. As. Soc.* p. 226, no. 1368 (1849); *Layard, Ann. N. H.* (2) xii. p. 174 (1853); *Tytler, Ann. N. H.* (2) xiii. p. 373 (1854); *Pelzeln, Reise Novara, Vög.* p. 52 (1865); *Gould, B. Asia*, pt. 19, pl. 4 (1867); *Gray, Hand-l. B.* i. p. 112, no. 1392 (1869).  
*Nectarinia sola*, *Gray, Gen. B.* i. p. 99 (1847).  
*Leptocoma zeylonica*, *Cab. Mus. Hein.* i. p. 104, no. 568 (1850); *Bp. Comptes Rendus*, 1854, p. 265; *Horsf. & Moore, Cat. B. E.I. Co. Mus.* ii. p. 740, no. 1082 (1856); *Jerd. B. Ind.* i. p. 368 (1862); *Beavan, Ibis*, 1865, p. 232; *Ball, Str. F.* vii. p. 208 (1878); *Godwin-Austen, J. A. S. B.* 1870, p. 267; *Blanf. op. cit.* 1871, p. 272; *Jerd. Ibis*, 1872, p. 17; *Hume, Nest & Eggs Ind. B.* p. 147 (1873).  
*Cinnyricinclia nigralba*, *Reichb. Handb. Scansorie*, p. 306, no. 719 (1851).  
*Anthreptes sperata*, *Licht. Nomencl. Av.* p. 56 (1854).  
*Nectarophila zeylonica*, *Reichb. tom. cit.* p. 282, pl. 570. figs. 3885-87, and pl. 569. figs. 3881-82 (1854); *Walden, Ibis*, 1870, p. 37; *Holdsworth, P. Z. S.* 1872, p. 434.  
*Arachnothera nigralba*, *Gray, Hand-l. B.* i. p. 113, no. 1402 (1869).  
*Anthreptes zeylonica*, *Licht. Nomencl. Av.* p. 56 (1854).  
*Nectarinia zeylonica*, *Hartl. J. f. O.* 1859, p. 292.

*Adult male.* Entire crown and ulnar coverts metallic purplish green; chin and throat purplish violet; lower back and upper tail-coverts rich metallic violet; tail black, the outer pair of feathers with pale tips; wings and wing-coverts dark brown, externally edged with reddish brown; nape, mantle, sides of neck, and a broad collar

across the forehead, ear-coverts, ocular region, and edge of wing sooty black; chest and breast bright sulphur-yellow, this colour becoming paler on the abdomen and under tail-coverts; flanks and under wing-coverts white; inner webs of remiges edged with pale buff. Culmen 0.55-0.73 inch, wing 2-2.25, tail 1.4-1.5, tarsus 0.60-0.75.

*Female.* Upper parts earthy brown, with a slight olive shade; wings brown, with reddish-brown edges; tail blackish brown, with pale tips; breast and abdomen lemon-yellow, passing into white on the rest of the underparts.

*Hab.* Ceylon and Indian peninsula.

a, b. ♂ ad. st.	India.	Dr. Burns [P.].
c. ♂ ad. sk.	India.	R. Swinhoe, Esq. [P.].
d. ♂ ad. sk.	Assam ( <i>McClelland</i> ).	India Museum.
e. ♂ ad. sk.	Deccan ( <i>Sykes</i> ).	India Museum.
f. ♀ ad. sk.	Dacca ( <i>Tytler</i> ).	India Museum.
g, h. ♂; i, k. ♀ ad. sk.	Madras.	Rev. H. Baber [P.].
l. Juv. sk.	Madras.	Rev. H. Baber [P.].
m, n. ♂ ad. sk.	Madras.	Sir W. Elliot [P.].
o. ♀ ad.; p. ♂ juv. sk.	Madras.	Gould Collection.
q. [♀] ad. sk.	Pondicherry.	F. D. Godman and O. Salvin, Esqrs. [P.].
r. ♀ ad. sk.	Travancore.	F. W. Bourdillon, Esq. [C.].
s. ♂ ad. sk.	Ceylon.	H. Seebohm, Esq. [P.].
t. ♂ ad. sk.	Ceylon.	F. D. Godman and O. Salvin, Esqrs. [P.].

### 23. *Cinnyris grayi*.

*Nectarinia grayi*, *Wallace, P. Z. S.* 1865, p. 479; *Brügg. Abhandl. Ver. Bremen*, v. p. 72, no. 79 (1876).

*Promerops grayi*, *Gray, Hand-l. B.* i. p. 110, no. 1359 (1869).

*Nectarophila grayi*, *Walden, Ibis*, 1870, p. 42, pl. 1. fig. 2; *id. Tr. Zool. Soc.* viii. p. 71 (1874); *Salvad. Ann. Mus. Civic. Genova*, vii. p. 660, no. 39 (1875); *Meyer, Ibis*, 1879, p. 132.

*Hermotimia grayi*, *Salvad. Atti R. Acc. Torino*, xii. p. 310 (1877).

*Cinnyris grayi*, *Shelley, Monogr. Nect.* p. 91, pl. 31.

*Adult male.* Entire crown and nape golden green: throat and fore neck rich purplish blue, bordered on the sides by a blue streak; ulnar and carpal coverts, lower back, rump, and upper tail-coverts dark metallic blue with a purple gloss; mantle, sometimes some of the median coverts, hind neck, sides of neck, chest, and upper breast dark blood-red, or rather black and strongly washed with red; rest of upper and under parts velvety black with a slight purplish hue; tail-feathers broadly edged with metallic purple. Culmen 0.68-0.78 inch, wing 2.35, tail 1.6, tarsus 0.55.

*Female.* Upper parts ashy olive-brown; tail black, broadly tipped with white; crown ashy grey; sides of head paler, fore neck silky white; rest of underparts pale yellow. The female of this species is therefore very similar to that of *C. insignis*. Wing 2 inches.

*Young males* resemble the females, but have the crown shaded with olive, the chin and throat washed with yellow (*Shelley*).

*Hab.* Celebes.

a. ♂ ad. sk.	Tondano, N. Celebes.	A. R. Wallace, Esq. [C.] (Type of <i>C. grayi</i> .)
b. ♂ ad. sk.	Celebes.	A. R. Wallace, Esq. [C.]
c. ♂ juv.; d. ♀ ad. sk.	Menado.	A. R. Wallace, Esq. [C.]
e, f, g. ♂ ad.; h. ♂ juv. sk.	Menado.	Gould Collection.

## 24. *Cinnyris hasselti*.

Le Grimpereau violet du Brésil, *Briss. Orn.* iii. p. 661, no. 30 (1760).

Le Guit-guit noir et violet, *Buff. Hist. Nat.* v. p. 541, no. 30 (1778).

Black and Violet Creeper, *Lath. Gen. Syn.* i. p. 307 (1781); *id. Gen. Hist.* iv. p. 274, no. 89.

*Certhia brasiliana*, *Gm. S. N.* i. p. 474, no. 41 (1788, *ex Briss.*); *Lath. Ind. Orn.* i. p. 293, no. 39 (1790); *Shaw, Gen. Zool.* viii. p. 257 (1811).

Le Soui-manga violet, *Audeb. et Vieill. Ois. Dor.* ii. p. 65 (1802).

*Certhia sperata*, *Raffles, Tr. Linn. Soc.* xiii. p. 298 (1822, *nec Linn.*).

*Nectarinia hasseltii*, *Temm. Pl. Col.* 376. fig. 3 (1825); *Jard. Monogr. Sun-birds*, pp. 218, 262, pl. 22 (1843); *S. Müll. & Schl. Verh. Nat. Gesch., Aves*, p. 59, pl. 10. fig. 5 (1846); *Gray, Gen. B.* i. p. 98 (1847); *Low, Sarawak*, p. 410 (1848); *Blyth, Cat. B. Mus. As. Soc.* p. 226, no. 1370 (1849); *Schl. Handl. Dierk.* p. 256 (1857); *Sclater, P. Z. S.* 1863, p. 220; *Pelzeln, Reise Novara, Vög.* pp. 52, 161 (1865); *Beavan, Ibis*, 1869, p. 420.

*Cinnyris hasseltii*, *Less. Man. d'Orn.* ii. p. 31 (1828); *Bp. C. A.* i. p. 409, no. 48 (1850); *Shelley, Monogr. Nect.* p. 127, pl. 42; *Sharpe, P. Z. S.* 1879, p. 342.

*Cinnyris ruber*, *Less. Traité d'Orn.* p. 296, no. 23 (1831); *Pucheran, Rev. et Mag. Zool.* 1853, p. 487 (1853).

*Nectarinia phayrei*, *Blyth, J. A. S. B.* xii. p. 1008 (1843); *id. op. cit.* xiv. p. 557 (1845); *Gray, Gen. B.* i. p. 98, no. 60 (1847).

*Leptocoma hasseltii*, *Cab. Mus. Hein.* i. p. 104 (1850); *Horsf. & Moore, Cat. B. E.I. Co. Mus.* ii. p. 740, no. 1031 (1856); *Moore, P. Z. S.* 1859, p. 462; *Hume, Str. F.* 1874, p. 473.

*Leptocoma brasiliana*, *Walden, P. Z. S.* 1866, p. 543.

*Nectarophila hasseltii*, *Reichb. Handb. Scansorie*, p. 280, no. 650, pl. 563. figs. 3868-70 (1854); *Salvad. Ann. Mus. Civic. Genova*, v. p. 177 (1874); *Sharpe, P. Z. S.* 1875, p. 106; *Blyth & Walden, B. Burma*, p. 142 (1875); *Tweedd. Ibis*, 1877, p. 302.

*Arachnothera phayrei*, *Gray, Hand-l. B.* i. p. 111, no. 1380 (1869).

*Arachnothera hasseltii*, *Gray, tom. cit.* p. 112, no. 1394.

*Nectarophila brasiliana*, *Walden, Ibis*, 1870, p. 41.

*Anthreptes hasseltii*, *Licht. Nomencl. Av.* p. 56 (1854).

*Nectarophila brasiliana*, *Stoliczka, J. A. S. B.* xxxix. p. 300 (1870).

*Cinnyris brasilianus*, *Hume, Str. F.* v. p. 271 (1877); *Shelley, Monogr. Nect.* pl. 42.

*Leptocoma brasiliana*, *Hume & Davison, Str. F.* vi. p. 184 (1878).

*Adult male.* Whole bird, in position A, black, with the exception of the red breast; fore neck, crown, and lower back metallic. In position B the entire crown and nape are metallic green; least wing-

coverts and carpal coverts, lower back, and upper tail-coverts dark metallic purplish red. In position C the fore neck has a strong coppery gloss. Whole breast dark blood-red; no pectoral tufts; tail blue-black; abdomen sometimes tinged with brownish, whilst the underparts are generally velvety black, including the sides of the head and neck, under wing-coverts, and inner webs of quills. Culmen 0·65 inch, wing 1·8–1·9, tail 1·1, tarsus 0·50.

*Female.* Above olive-brown with a greyish tinge; wings brown with white inner edges to the quills; tail blackish brown, striped with white; sides of head and all the underparts silky whitish; breast and under tail-coverts washed with pale yellow. Wing 1·75 inch.

*Hab.* Sunda Islands, extending northwards through the Malayan peninsula as far as Tipperah.

<i>a.</i> ♂ ad. sk.	Arakan ( <i>Capt. Tytler</i> ).	India Museum.
<i>b.</i> ♂ ad. sk.	Lower Pegu, May 22, 1879.	E. W. Oates, Esq. [C.].
<i>c.</i> ♀ ad. sk.	Lower Pegu, Aug. 29, 1876.	E. W. Oates, Esq. [C.].
<i>d, e.</i> ♂ ad. sk.	Tenasserim.	J. C. D. Packman, Esq. [P.].
<i>f, g.</i> ♂ ad. sk.	Malacca.	W. Harvey, Esq. [P.].
<i>h, i.</i> ♂ ad. sk.	Malacca.	Capt. Stackhouse Pinwill [P.].
<i>k.</i> ♂ ad. sk.	Penang ( <i>Dr. Cantor</i> ).	India Museum.
<i>l, m.</i> ♂ ad. sk.	Sumatra.	A. R. Wallace, Esq. [C.].
<i>n.</i> ♂ ad. sk.	Sumatra ( <i>Raffles</i> ).	India Museum [P.].
<i>o, p, q, r.</i> ♂ ♀ ad. sk.	Labuan ( <i>Low</i> ).	R. B. Sharpe, Esq. [P.].
<i>s, t.</i> ♂ ad. sk.	Borneo.	Gould Collection.
<i>u.</i> ♂ ad. sk.	Sarawak.	A. R. Wallace, Esq. [C.].
<i>v.</i> ♂ ad. sk.	Banjermassing ( <i>Motley</i> ).	A. R. Wallace, Esq.

#### FOURTH GROUP (*Hermotimia*).

Whole bird black in position A. The crown, shoulders (ulnar and carpal coverts), lower back, upper tail-coverts, outer edge of some of the tail-feathers, chin, and throat are metallic. Rest of plumage black. No pectoral tufts.

#### 25. *Cinnyris aspasie*.

##### *C. aspasie* typical.

- Cinnyris aspasia*, *Less. Voy. Cog., Zool.* i. p. 676, pl. 30. fig. 4 (1826); *id. Traité d'Orn.* i. p. 295 (1831); *id. Compl. Buff., Ois.* p. 590 (1838); *Bp. C. A.* i. p. 409 (1850); *Bernstein, J. f. O.* 1859, p. 279; *Rosenberg, J. f. O.* 1864, p. 123; *Ramsay, Trans. Linn. Soc. New S. Wales*, iii. p. 288 (1878); *Shelley, Monogr. Nect.* p. 113, pl. 37. fig. 2.
- Cinnyris sericeus*, *Less. Dict. Sc. Nat.* i. p. 21 (1827); *id. Man. d'Orn.* ii. p. 43 (1828).

- Nectarinia aspasia*, *Jard. Monogr. Sun-birds*, pp. 219, 272 (1843); (pt.) *S. Müller & Schleg. Verh. Nat. Gesch., Aves*, pp. 58, 64, 65 (1846); *Gray, Gen. B. i. p. 98* (1847); *Schl. Handl. Dierk.* p. 256 (1857); *Selat. Journ. Linn. Soc. ii. p. 157* (1858, pt.); *Gray, P. Z. S. 1858*, p. 190; *id. P. Z. S. 1859*, p. 155 (pt.); *id. Cat. B. New Guinea*, pp. 22, 55 (1858); (pt.) *Finsch, Neu-Guinea*, p. 163 (1865); *d'Albertis, Ibis*, 1877, p. 367.
- Nectarinia amasia*, *S. Müll. Natuurl. Gesch. Land- en Volk.* p. 22 (1843); *Gray, P. Z. S. 1858*, p. 190; *id. P. Z. S. 1861*, p. 433; *Finsch, Neu-Guinea*, p. 163 (1865); *Walden, Ibis*, 1870, p. 50.
- Chalcostetha aspasia*, *Cab. Mus. Hein. i. p. 103* (1850); *Bp. Comptes Rendus*, 1854, p. 265; *Walden, Ibis*, 1870, p. 45; *Meyer, Sitz. k. Akad. Wiss. Wien*, lxx. p. 122 (1874).
- Hermotimia aspasia*, *Reichenb. Handb. Seans.* p. 285, pl. 572. fig. 3901 (1853); *Salvad. Atti R. Acc. Torin. x. p. 219* (1874), xii. p. 302 (1877); *id. Ann. Mus. Civ. Gen. vii. p. 400, 936* (1875), x. p. 89.
- Promerops aspasia*, *Gray, Hand-l. B. i. p. 110*, no. 1355 (1869).
- Promerops amasia*, *Gray, Hand-l. B. i. p. 110*, no. 1362.
- Ptiloturus aspasia*, *Giebel, Thes. Orn. i. pp. 631, 695* (1872).
- Chalcostetha chlorocephala*, *Salvad. Ann. Mus. Civ. Gen. vi. p. 78* (1874).
- Hermotimia chlorocephala*, *Salvad. Atti R. Acc. Torin. x. pp. 208, 266* (1874), xii. p. 305 (1877).
- Hermotimia sp.?*, *Salvad. Ann. Mus. Civ. Gen. ix. p. 30* (1876); *id. Atti R. Acc. Torin. xii. p. 312* (1877).
- Chalcostetha aspasia*, var. *mysorensis*, *Meyer, Sitz. k. Ak. Wiss. Wien*, lxx. p. 124 (1874).
- Hermotimia mysorensis*, *Salvad. Atti R. Acc. Torin. x. pp. 208, 224* (1874), xii. p. 301 (1877).
- Cinnyris mysorensis*, *Shelley, Monogr. Nect.* p. 119, pl. 40. fig. 2.
- Chalcostetha aspasia*, var. *jobiensis*, *Meyer, Sitz. k. Ak. Wiss. Wien*, lxx. p. 124 (1874).
- Hermotimia jobiensis*, *Salvad. Atti R. Acc. Torin. x. pp. 208, 225* (1874), xii. p. 302 (1877); *id. Ann. Mus. Civ. Genova*, p. 400 (1876).
- Cinnyris jobiensis*, *Shelley, Monogr. Nect.* p. 121.
- Chalcostetha aspasia*, var. *maforensis*, *Meyer, Sitz. k. Ak. Wiss. Wien*, lxx. p. 123 (1874).
- Hermotimia maforensis*, *Salvad. Atti R. Acc. Torin. x. pp. 208, 297* (1874), xii. p. 301 (1877).
- Cinnyris maforensis*, *Shelley, Monogr. Nect.* p. 123, pl. 40. fig. 1.
- Hermotimia cornelia*, *Salvad. Atti R. Acc. Torino*, xiii. p. 319 (1878).
- Cinnyris corneliæ*, *Shelley, Monogr. Nect.* p. 111, pl. 38.
- The following references belong to *C. corinnæ*, *Salvad.* :—
- Nectarinia aspasia*, *Selat. P. Z. S. 1877*, p. 102, 1878, p. 289; *Finsch, P. Z. S. 1879*, p. 10.
- Hermotimia aspasia?*, *Salvad. Atti R. Acc. Torino*, xii. p. 312 (1877).
- Cinnyris aspasie*, *Shelley, Monogr. Sun-birds*, pt. v. (1877, part.).
- Hermotimia corinna*, *Salvad. Atti R. Acc. Torino*, xiii. p. 532 (1878); *id. Ibis*, 1879, p. 106.
- Cinnyris corinnæ*, *Shelley, Monogr. Nect.* p. 117, pl. 139.

*C. aspasioides.*

- Nectarinia aspasia*, *S. Müll. Natuurl. Gesch. Land- en Volkenk.* p. 110 (1843); (pt.) *S. Müll. & Schleg. Verh. Nat. Gesch., Aves*, p. 58 (1846); (pt.) *Finsch, Neu-Guinea*, p. 163 (1865).  
*Nectarinia aspasioides*, *Gray, P. Z. S.* 1860, p. 348; *Pelz. Verh. k. k. zool.-bot. Gesellsch. Wien*, 1872, p. 427.  
*Cinnyris aspasia* (pt.), *Rosenberg, J. f. O.* 1864, p. 123.  
*Nectarinia aspasinoides*, *Finsch, Neu-Guinea*, p. 163 (1865).  
*Nectarinia amasia*, *Finsch, tom. cit.* p. 163.  
*Promerops aspasinoides*, *Gray, Hand-l. B. i.* p. 110, no. 1356 (1869).  
*Chalcostetha aspasioides*, *Walden, Ibis*, 1870, p. 46; *Meyer, Sitz. k. Ak. Wiss. Wien*, lxx. p. 123 (1874).  
*Ptiloturus aspasioides*, *Giebel, Thes. Orn.* i. p. 631 (1872).  
*Chalcostetha goramensis*, *Salvad. Ann. Mus. Civ. Gen.* vi. p. 85 (1874).  
*Hermotimia aspasioides*, *Salvad. Atti R. Acc. Torin.* x. pp. 208, 216 (1874), xii. p. 306 (1877); *id. P. Z. S.* 1878, p. 81.

*C. auriceps.*

- Nectarinia auriceps*, *Gray, P. Z. S.* 1860, p. 348; *Wallace, P. Z. S.* 1862, pp. 335, 343; *Finsch, Neu-Guinea*, p. 163 (1865); *Brügg. Abhandl. nat. Ver. Bremen*, v. p. 465 (1877).  
*Promerops auriceps*, *Gray, Hand-l. B. i.* p. 110, no. 1357 (1869).  
*Chalcostetha auriceps*, *Walden, Ibis*, 1870, p. 46; *Meyer, Sitz. k. Ak. Wiss. Wien*, lxx. p. 123 (1874).  
*Hermotimia auriceps*, *Salvad. Atti R. Acc. Torin.* x. pp. 208, 228 (1874), xii. p. 309 (1877).  
*Nectarinia porphyrolæma*, *Brügg. Abhandl. nat. Ver. Bremen*, v. p. 73 (1876).  
*Cinnyris auriceps*, *Shelley, Monogr. Nect.* p. 99, pl. 34. fig. 1.  
 ? *Hermotimia auriceps*, pt., *Salvad. Atti R. Acc. Torin.* x. p. 229 (1874).  
*Cinnyris morotensis*, *Shelley, Monogr. Nect.* p. 101, pl. 34. fig. 2.

*C. porphyrolæma.*

- Nectarinia aspasia* (pt.), *Schl. & Müll. Verhandl. Zool., Aves*, p. 58 (1846).  
*Nectarinia porphyrolæma*, *Wallace, P. Z. S.* 1865, p. 479.  
*Promerops porphyrolæma*, *Gray, Hand-l. B. i.* p. 110, no. 1360 (1869).  
*Chalcostetha porphyrolæma*, *Walden, Ibis*, 1870, p. 46; *id. Tr. Z. S.* viii. p. 71 (1874); *Meyer, Sitz. k. Ak. Wissensch. Wien*, lxx. p. 122 (1874); *id. Ibis*, 1879, p. 131.  
*Hermotimia porphyrolæma*, *Salvad. Atti R. Acc. Sc. Tor.* x. pp. 208, 232 (1874); *id. Ann. Mus. Civic. Gen.* vii. p. 660, no. 38, pl. 18. fig. 3 (1875); *id. Atti R. Acc. Torin.* xii. p. 310 (1877).  
*Cinnyris porphyrolæma*, *Shelley, Monogr. Nect.* p. 95, pl. 32. fig. 1.

*C. proserpinæ.*

- Nectarinia proserpina*, *Wallace, P. Z. S.* 1863, p. 32; *Finsch, Neu-Guinea*, p. 163 (1865).  
*Promerops proserpina* ("Müll."), *Gray, Hand-l. B. i.* p. 110, no. 1358 (1869, err.).  
*Chalcostetha proserpina*, *Walden, Ibis*, 1870, p. 46; *Meyer, Sitz. k. Ak. Wiss. Wien*, lxx. p. 123 (1874).

*Hermotimia proserpina*, *Salvad. Atti R. Acc. Torino*. x. pp. 208, 230 (1874), xii. p. 307 (1877).

*Cinnyris proserpina*, *Shelley, Monogr. Nect.* p. 107, pl. 36.

*Hermotimia nigriscapularis*, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 937 (1875); *id. Atti R. Acc. Torino*. xii. p. 308 (1877).

*Cinnyris nigriscapularis*, *Shelley, Monogr. Nect.* p. 103, pl. 35. fig. 1.

*C. salvadorii*.

*Hermotimia nigriscapularis* (pt.), *Salvad. Ann. Mus. Civ. Gen.* vii. p. 938 (1875).

*Hermotimia*, sp., *Salvad. Atti R. Acc. Torino*. xii. p. 308 (1877).

*Cinnyris salvadorii*, *Shelley, Monogr. Nect.* p. 105, pl. 35. fig. 2.

*Cinnyris aspasieæ*.

*Adult male*. Whole bird black in position A. The crown and nape, the whole throat, the lower back, rump, upper tail-coverts, the outer edges of most of the tail-feathers, and part or most of the smaller wing-coverts metallic. All the rest of the bird deep black. The metallic parts are subject to great variations of shade, scarcely two birds being exactly alike.

The *adult females* of *C. aspasieæ* and its next allies have the crown and nape grey, with darker centres to the feathers; wings brown; mantle, back, and outer edge of wing-feathers olive-yellow; chin, cheeks, and fore neck silky white; rest of underparts yellow; under wing-coverts and inner edge of quills white; tail black with whitish tips.

*Young males* are like the females, but have a metallic blue moustachial streak.

*Obs.* The metallic colours of this species are subject to much variation of shade: the green varies between dark and golden green; and the blue in position C has often a purple or strong violet gloss.

♀ (Aru), culmen 0·89 inch, wing 2·32, tail 1·4, tarsus 0·56.

♀ (Amboyna), wing 2·19 inches; ♀ (Duke of York group), wing 2·21; ♀ (Goram), wing 2·06; ♀ (Amboyna), wing 2·06.

I. GREEN FORM. 1. *Small race* (*C. aspasieæ* typical, including *C. mysorensis*, *C. jobiensis*, *C. corinnæ*).—All the metallic parts of the upperside, including the scapulars and all the median and least wing-coverts, are deep rich emerald-green in position B, purplish blue in position C; crown inclining to glossy blackish; throat purplish blue in position B, rich purplish red in position C; mantle and breast velvety black.

*Hab.* New Guinea; Duke of York Island; Aru Islands; Salwatti; Jobi; Mysol; Amboyna.

2. *Larger race* (*C. aspasioides*).—Like *C. aspasieæ*, but the throat a little less purple; under tail-coverts and flanks sooty black, or even brownish.

*Hab.* S.E. New Guinea; New Britain.

II. BLUE FORM. 3. *Larger race* (*C. auriceps*).—Crown rich greenish golden in position B, dark green in C. The other metallic parts, including the scapulars and median and least wing-coverts, are

dark blue with a purplish gloss; throat dark blue, the purple only appearing in position C. The black parts are velvety in appearance.

*Hab.* Ternate, Batchian, Morty Island, Sula Islands.

4. *Smaller race* (*C. porphyrolæma*).—Crown very rich golden green; centre of throat purplish red; sides of throat blue. The metallic colours on the upper parts are confined to the rump and the ulnar and carpal coverts; the scapulars, median wing-coverts, and the centre of the back are velvety black.

*Hab.* Celebes.

III. BLACK-SHOULDERED FORM. 5. *Small race* (*C. proserpinæ*).—Crown dark green in position B, blue-black in C; rest of metallic feathers of upper parts rich bluish green in position B, in C rich purple like the throat. On the wings the metallic colours are confined to the ulnar and carpal coverts, most of the least and all the median coverts and the scapulars being velvety black. Mantle deep velvet, with a strongly marked submetallic indigo tinge; abdomen, flanks, and under tail-coverts sooty brownish black.

*Hab.* Bouru (*C. proserpinæ*); island of Miosnom in Geelvink Bay (*C. nigriscapularis*).

6. *Larger race* (*C. salvadorii*).—Like *C. proserpinæ*: but much larger. The type measures:—Culmen 0·75 inch, wing 2·8, tail 1·9, tarsus 0·7. (*Shelley*.)

*Hab.* Jobi Island in Geelvink Bay.

*Measurements of adult males of C. aspasixæ and C. aspasioides.*

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Matabello .....	0·88	2·55	1·82	0·63
Matabello .....	0·89	2·40	1·60	0·63
N. Ceram .....	0·89	2·45	1·65	0·63
N. Ceram .....	0·83	2·35	1·50	0·61
Amboyna .....	0·90	2·28	1·55	0·61
New Britain .....	0·81	2·50	1·65	0·65
Amboyna .....	0·87	2·40	1·62	0·62
Dorey .....	0·83	2·40	1·40	0·52
Aru ( <i>chlorocephala</i> , Salvadori) ..	0·82	2·40	1·42	0·55
Mysol .....	0·80	2·35	1·34	0·53
Mysol .....	0·81	2·40	1·55	0·61

Measurements:—	Culmen. in.	Wing. in.	Tail in.	Tarsus. in.
<i>C. auriceps</i> ♂ .....	0·8	2·4-2·6	1·65-1·90	0·60-0·65
" " ♀ .....	0·7-0·8	2·0-2·1	1·2-1·3	0·60
<i>C. morotensis</i> , type, ♂ ..	0·8	2·45	1·65	0·60
<i>C. proserpinæ</i> ♂ .....	0·9	2·45-2·50	1·65-1·80	0·65
" " ♀ .....	0·85	2·15	1·50	0·60
<i>C. porphyrolæma</i> ♂ ..	0·7-0·8	2·3-2·55	1·40-1·60	0·60
" " ♀ ..	0·7	2·0-2·15	1·25	0·55

*Obs.* 1. In the British Museum is an adult male from Morty Island, which has the crown darker green with a golden gloss; the other metallic feathers, which occupy the same parts as in *C. auriceps*, are in position B less purple than is the case with other specimens; in position C they are rich purplish violet. These slight differences



in the hue of the metallic gloss are hardly sufficient to separate *C. morotensis* from *C. auriceps*.

*Obs.* 2. Some specimens from Mafoor Island in Geelvink Bay are like typical *C. aspasie*, but have the entire crown golden, with only a faint tint of green. Wing 2.5 inches. (*C. maforensis*.)

*Obs.* 3. Specimens from d'Urville Island have the throat as purple as typical *C. aspasie*, but by their dimensions they approach *C. aspasioides*. These birds, intermediate between two forms which are hardly subspecies themselves, have been called *C. corneliae*.

*C. auriceps.*

<i>a, b, c.</i> ♂ ad. ; <i>d, e.</i> ♀ ad. sk.	Batchian.	A. R. Wallace, Esq. [C.].
<i>f, g, h.</i> ♂ ; <i>i.</i> ♀ ad. sk.	Ternate.	A. R. Wallace, Esq. [C.].
<i>k.</i> ♂ ad. sk.	Ternate.	Voy. H.M.S. 'Challenger.'
<i>l.</i> ♂ ad. sk.	Morty Island.	A. R. Wallace, Esq. [C.]. (Type of <i>C. morotensis</i> .)
<i>m.</i> ♂ ad. sk.	Sula Islands.	A. R. Wallace, Esq. [C.].
<i>n.</i> ♂ ad. sk.	Kaioa Island.	A. R. Wallace, Esq. [C.].

*C. porphyrolæma.*

<i>a.</i> ♂ ad. sk.	Makassar.	A. R. Wallace, Esq. [C.]. (Types of <i>C. porphyrolæma</i> .)
<i>b.</i> ♂ ad. sk.	Celebes.	A. R. Wallace, Esq. [C.].
<i>c.</i> ♀ ad. sk.	Makassar ( <i>Wallace</i> ).	Gould Collection.

*C. proserpina.*

<i>a, b.</i> ♂ ♀ ad. sk.	Bouru.	A. R. Wallace, Esq. [C.]. (Type of <i>C. proserpina</i> .)
<i>d.</i> ♂ ♀ ad. sk.	Bouru.	A. R. Wallace, Esq. [C.].

*C. aspasie.*

<i>a.</i> ♂ ad. sk.	Amboyna.	Voy. H.M.S. 'Challenger.'
<i>b.</i> ♂ ad. sk.	Mysol.	A. R. Wallace, Esq. [C.].
<i>c.</i> ♀ juv. sk.	Mysol.	A. R. Wallace, Esq. [C.].
<i>d.</i> ♂ ad. ; <i>e, f.</i> ♀ ad. sk.	Aru Islands.	A. R. Wallace, Esq. [C.].
<i>g, h.</i> ♂ ♀ ad. sk.	Dorey.	A. R. Wallace, Esq. [C.].
<i>i.</i> ♂ juv. sk.	Waigiou.	A. R. Wallace, Esq. [C.].
<i>k.</i> ♂ imm. sk.	East Cape, New Guinea.	Mr. Hunstein [C.].
<i>l.</i> ♂ ad. sk.	Astrolabe Mountains.	Mr. A. Goldie [C.].

*C. aspasioides.*

<i>a.</i> ♂ ad. sk.	Port Moresby.	Mr. A. Goldie [C.].
<i>b, c.</i> ♂ ad. sk.	[Somerset, Cape York ( <i>Cockerell</i> ).]	F. D. Godman and O. Sal- vin, Esqrs. [P.].
<i>d.</i> ♂ ad. sk.	Blanche Bay, New Bri- tain, June 16, 1879.	E. L. Layard, Esq. [C.].
<i>e.</i> ♀ ad. sk. (breeding).	Duke of York Island, Aug. 30, 1879.	E. L. Layard, Esq. [C.].
<i>f.</i> ♀ ad. sk.	Goram.	A. R. Wallace, Esq. [C.].
<i>g.</i> ♀ ad. sk.	Amboyna.	'Challenger' Expedition.
<i>h, i.</i> ♂ ad. sk.	Amboyna.	A. R. Wallace, Esq. [C.]. (Types of <i>C. aspasioides</i> , Gray.)

<i>k, l.</i> ♂ ad. sk.	N. Ceram.	A. R. Wallace, Esq. [C.].
<i>m.</i> ♂ ad. sk.	Batchian ( <i>Wallace</i> ).	Gould Collection.
<i>n.</i> ♂ juv. sk.	Aru Islands.	A. R. Wallace, Esq. [C.].
<i>o, p.</i> ♂ ad. sk.	Matabello Island.	A. R. Wallace, Esq. [C.].

### 26. *Cinnyris sanghirensis*.

*Chalcostetha sangirensis*, *Meyer, Sitz. k. Ak. Wiss. Wien*, lxx. p. 124 (1874).

*Hermotimia sanghirensis*, *Salvad. Atti R. Acc. Torin.* x. p. 233, pl. 1. fig. 2 (1874); *id. Ann. Mus. Civ. Gen.* ix. p. 56 (1876); *id. Atti R. Acc. Torin.* xii. p. 311 (1877).

*Cinnyris sangirensis*, *Shelley, Monogr. Nect.* p. 97, pls. 33 & 32. fig. 2.

*Adult male.* Similar to *C. porphyrolæma*, but with the centre of the throat coppery bronze; crown golden green. Culmen 0·65 inch, wing 2·40.

*Adult female* differs from the other females of the *Hermotimia* group in having the head olive and yellow, instead of grey; all the upper parts of the body are olive-yellow; upper tail-coverts and tail-feathers black, the latter largely tipped with white; under surface sulphur-yellow, tinted with olive on the sides.

*Young males* are like the females, but with a long moustachial streak of coppery blue; throat more or less shaded with orange-yellow, but non-metallic.

*Hab.* Sanghir Islands.

### 27. *Cinnyris theresæ*.

*Cinnyris aspasia* (pt.), *Rosenberg, J. f. O.* 1864, p. 123.

*Nectarinia aspasia* (pt.), *Finsch, Neu-Guinea*, p. 163 (1865).

*Chalcostetha chlorolæma*, *Salvad. Ann. Mus. Civ. Gen.* vi. p. 77 (1874).

*Hermotimia theresia*, *Salvad. Atti R. Acc. Torin.* x. pp. 208, 214, cum tab. fig. 1 (1874), xii. p. 300 (1877).

*Cinnyris theresæ*, *Shelley, Monogr. Nect.* p. 125, pl. 41.

Entire crown, chin and throat, median and least wing-coverts, lower back, rump, upper wing-coverts, and outer edges of the tail-feathers rich metallic golden green; rest of plumage velvet indigo-black. Culmen 0·8 inch, wing 2·35.

*Hab.* Key or Kei Islands.

### FIFTH GROUP (*C. olivacea* and allies).

The species of this group are remarkable either for the total absence of metallic colours in the plumage, or for these colours being restricted to the throat or crown; upper parts generally olive. Pectoral tufts present. Nostrils bare.—African.

### 28. *Cinnyris verreauxi*.

*Cinnyris verroxii*, *Smith, S. Afr. Quart. Journ.* 1831, p. 13; *id. Ill. Zool. S. Afr., Aves*, pl. 57 (1839).

*Nectarinia verroxii*, *Jard. Monogr. Sun-birds*, pp. 185, 253, pl. 9 (1843); *Layard, B. S. Afr.* p. 76 (1867).

*Cinnyris verreauxi*, *Bp. C. A. i.* p. 407 (1850); *Shelley, Monogr. Nect.* p. 287, pl. 90.

*Adelinus verreauxi*, *Müll. J. f. O.* 1855, p. 13; *Finsch & Hartl. Vög. Ost-Afr.* p. 861 (1870); *Shelley, Ibis*, 1875, p. 70.

*Adult male.* All the upper parts ashy grey or brownish; the feathers of the head, back, and wing-coverts broadly edged with a dull, so to speak, submetallic green, without, however, any strong gloss; tail black-brown; pectoral tufts brilliant scarlet; rest of underparts pale buff, flanks tinged with grey; cheeks, under wing-coverts, and inner edge of quills almost white. Culmen 1.1 inch, wing 2.5–2.7, tail 2.2, tarsus 0.70–0.74.

*Adult female* is said to be similar in plumage to the male.

*Hab.* South Africa.

a. ♂ ad. sk. South Africa.

Sir A. Smith [C.]

(Type of species.)

b. ♂ ad. sk. South Africa.

R. B. Sharpe, Esq.

c. ♂ ad. sk. Kingwilliamstown, October 1876.

Capt. Trevelyan [P.]

d. ♂ ad. sk. Natal.

Purchased.

### 29. *Cinnyris fischeri*.

*Cinnyris fischeri*, *Reichen. J. f. O.* 1880, p. 142.

Similar to *C. verreauxi*, but much smaller. (*Reichenow.*)

*Hab.* Mozambique.

### 30. *Cinnyris fusca*.

Le Sucrier Namaquois ou à caleçon blanc, *Levaill. Ois. d'Afr.* vi. p. 168, pl. 296 (1808); *Sundev. Crit. om Levaill.* p. 57 (1857).

*Cinnyris fuscus*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 506 (1819); *id. Enc. Méth.* ii. p. 594 (1823); *Less. Man. d'Orn.* ii. p. 60 (1828);

*Bp. Consp. Av.* i. p. 407, no. 28 (1850); *Gurney, in Andersson, B. Damara Land*, p. 71 (1872); *Sharpe, ed. Layard's B. S. Afr.* p. 317 (1877); *Shelley, Monogr. Nect.* p. 285, pl. 89.

*Nectarinia fusca*, *Drapiez, Dict. Class.* xv. p. 513 (1829); *Jard. Monogr. Sun-birds*, pp. 183, 252, pl. 8 (1843); *Strickl. & Selat.*

*Contr. Orn.* 1852, p. 153; *Hartl. Orn. W.-Afr.* p. 51, no. 146 (1857); *id. J. f. O.* 1861, p. 109; *Layard, B. S. Afr.* p. 79,

no. 131 (1867); *id. Ibis*, 1868, p. 244; *Chapman, Trav. S. Afr.* ii. *App.* p. 407 (1868); *Sharpe, Cat. Afr. B.* p. 40, no. 371 (1871); *Bocage, Orn. d'Angola*, p. 175 (1877).

*Cinnyricincla fusca*, *Reichb. Handb. Scansoriæ*, pp. 295, 306, nos. 692, 718, pl. 580, figs. 3942–44 (1854).

*Adelina fusca*, *Bp. Comptes Rendus*, 1854, p. 265.

*Adult male.* Wings uniform fuscous brown, the inner webs with paler edgings; upper tail-coverts black, with a metallic blue gloss; tail-feathers blackish brown, externally with a faint bluish gloss; flanks, abdomen, and under tail-coverts white; all the rest of the upper and under parts, including edge of wing and under wing-coverts, dusky brown; most of the feathers, including the lesser

wing-coverts, broadly edged with an indistinct metallic greenish bronze colour; centre of breast blackish brown, without any metallic edgings; pectoral tufts bright orange.

*Adult female.* All the upper parts are uniform fuscous or earthy brown; tail dark brown, outer pair of feathers with pale edges; all the underparts white, with a slight buffish tinge; thighs brown; under wing-coverts brownish.

*Young male.* Like the female, but with a broad black band down the throat and fore neck.

♂. Culmen 0·8 inch, wing 2·2-2·4, tail 1·5, tarsus 0·65.

♀. „ 0·7 „ „ 2·05, „ 1·5, „ 0·65.

*Hab.* South-western Africa.

a. ♂ ad. sk.	Cape.	Purchased.
b. ♂ ad. sk.	Nylefield, British Caf- fraria.	Capt. Trevelyan [P.].
c. ♂ ad. sk.	Hope Town ( <i>T. Atmore</i> ).	R. B. Sharpe, Esq.
d. ♂ ad. sk.	Great Namaqua Land.	R. B. Sharpe, Esq.
e. ♂ juv.; f. ♂ imm. sk.	Koanguip River, Nama- qua Land, July 12, 1861 ( <i>Andersson</i> ).	R. B. Sharpe, Esq.
g. ♂ ad. st.	Damara Land.	C. J. Andersson, Esq. [C.].
h. ♂ ad. sk.	Swakop River, Damara Land, Sept. 20, 1863 ( <i>Andersson</i> ).	R. B. Sharpe, Esq. [P.].
i. ♀ ad. sk.	Swakop River, Dec. 28, 1860 ( <i>Andersson</i> ).	R. B. Sharpe, Esq. [P.].
k. ♂ ad. sk.	Tjobis, Damara Land, April 3, 1865 ( <i>Anders- son</i> ).	R. B. Sharpe, Esq.
l. ♂ ad. sk.	Otjimbingue, Jan. 10, 1862 ( <i>Andersson</i> ).	R. B. Sharpe, Esq. [P.].
m. ♀ ad. sk.	Elephant River, Aug. 11, 1862, Little Namaqua Land ( <i>Andersson</i> ).	R. B. Sharpe, Esq.
n. ♀ ad. sk.	Elephant Vley, Oct. 19, 1859 ( <i>Andersson</i> ).	R. B. Sharpe, Esq. [P.].

### 31. *Cinnyris balfouri*.

*Cinnyris balfouri*, *Scl. & Hartl. P. Z. S.* 1881, p. 169, pl. 15. fig. 2.

*Adult male.* Wings, all the upper parts, and the sides of the head dark brown; most of the feathers with narrow pale edges, especially the feathers of the crown; large bright yellow pectoral tufts; general colour of the rest of the underparts dull white; fore neck and cheeks with a mottled appearance, all the feathers of the fore neck and chest having a large brown subterminal central spot and the basal half of the feathers grey; tail blackish brown, the outer pairs of feathers with large whitish tips; bill and feet black.

*Female* resembles the male, but without the yellow pectoral tufts.

♂. Culmen 0·90 inch, wing 2·60, tail 2·0, tarsus 0·80.

♀. „ 0·80 „ „ 2·35, „ 1·9, „ 0·78.

*Hab.* Island of Socotra.

<i>a, b.</i> ♂ ad. sk.	Socotra, Feb. 27 & 28, 1880 ( <i>Balfour</i> ).	British Association [P.].
<i>c, d.</i> ♂ ♀ ad. sk.	Socotra, March 1880 ( <i>Balfour</i> ).	British Association [P.]. (Types of species.)

32. *Cinnyris obscura*.

*Nectarinia obscura*, *Jard. Monogr. Sun-birds*, p. 253 (1842); *id.* & *Selby, Ill. Orn.* 1842, pl. 51; *Jard. Contr. Orn.* 1851; *Hartl. Orn. W.-Afr.* pp. 50, 271 (1857); *id. J. f. O.* 1861, p. 109; *Gray, Hand-l. B. i.* p. 108, no. 1321 (1869); *Sharpe, Ibis*, 1870, p. 478; *id. Cat. Afr. B.* p. 38, no. 353 (1871); *Shelley & Buckley, Ibis*, 1872, p. 287; *Reichenow, J. f. O.* 1875, p. 31.

*Cinnyris obscurus*, *Bp. C. A. i.* p. 407, no. 26 (1850); *Sharpe & Bouvier, Bull. Soc. Zool. France*, i. p. 304 (1876); *Shelley, Monogr. Nect.* p. 291, pl. 92.

*Adelina obscura*, *Bp. Comptes Rendus*, 1854, p. 265.

*Elæocerthia obscura*, *Reichb. Handb. Scansoriae*, p. 293, no. 684, pl. 578. figs. 3935-36 (1854).

*Nectarinia fraseri*, *Dohrn, P. Z. S.* 1866, p. 326.

*Adelinus obscurus*, *Oust. N. Arch. Mus. i.* p. 88 (1878).

Bill of *Cinnyris obscura*.

*Adult male.* All the upper parts dark olive, darkest on the crown; wings and tail brown, edged with olive-yellow, the tail with pale tips; all the underparts dingy white, washed with yellowish, especially on the flanks; bright yellow pectoral tufts; sides of head mottled with dingy white and dark olive; under wing-coverts white. Culmen 0.95 inch, wing 2.4-2.6, tail 2.1, tarsus 0.65.

*Female.* Without the yellow pectoral tufts; underparts dingy white, more inclining to greyish than to yellow. Wing 2.1-2.2 inches.

In *immature* birds the yellow colour on the underparts is very pronounced.

*Hab.* West Africa.

*Obs.* This bird, but for its bill, strongly resembles certain species of *Arachnothera*.

<i>a.</i> Imm. sk.	Ashanti.	J. Gould, Esq. [C.].
<i>b.</i> Ad. sk.	Fantee.	A. Swanzy, Esq. [P.].
<i>c, d, e.</i> Ad. sk.	Fantee ( <i>Ussher</i> ).	R. B. Sharpe, Esq.
<i>f, g, h.</i> Juv. sk.	Fantee ( <i>Aubinn</i> ).	R. B. Sharpe, Esq.
<i>i.</i> Ad. sk.	Prince's Island ( <i>Keulemans</i> ).	R. B. Sharpe, Esq.
<i>k.</i> Imm. sk.	Prince's Island ( <i>Ingall</i> ).	R. B. Sharpe, Esq.
<i>l, m.</i> ♀ imm. sk.	Fernando Po ( <i>Fraser</i> ).	T. C. Eyton, Esq.
<i>n, o.</i> Ad. sk.	Fernando Po.	L. Fraser, Esq. [C.].
<i>p, q.</i> ♂ ♀ ad. sk.	Cameroons.	R. B. Sharpe, Esq.
<i>r, s.</i> ♀ ad. sk.	Gaboon.	R. B. Sharpe, Esq.
<i>t.</i> Ad. sk.	Gaboon ( <i>Du Chaillu</i> ).	R. B. Sharpe, Esq.
<i>u.</i> Ad. sk.	Angola ( <i>Hamilton</i> ).	R. B. Sharpe, Esq.

33. *Cinnyris olivacea*.

- Cinnyris olivacea*, *Smith, Ill. S. Afr. Zool.* in text to pl. 57 (1839);  
*Bp. C. A. i.* p. 407; *Sharpe, ed. Layard's B. S. Afr.* p. 310 (1876);  
*Shelley, Monogr. Nect.* p. 289, pl. 91.  
*Nectarinia olivacea*, *Jard. Monogr. Sun-birds*, pp. 186, 253 (1843);  
*Layard, B. S. Afr.* p. 78 (1867); *Finsch & Hartl. Vög. Ost-Afr.*  
 p. 225 (1870); *Shelley, Ibis*, 1875, p. 70.  
*Elæocerthia olivacea*, *Reichenb. Handb. Scansor.* p. 292 (1854).  
*Adelina olivacea*, *Bp. Comptes Rendus*, 1854, p. 265.

Bill of *Cinnyris olivacea*.

In South Africa *C. obscura* is represented by a larger-billed and richer-coloured form. The pectoral tufts are gamboge-yellow; all the rest of the underparts are of a vivid yellowish-olive colour, more inclining to yellow on the throat, and to greenish on the flanks; under wing-coverts whitish. Culmen 1·0–1·15 inch, wing 2·4–2·70, tail 2·0–2·3, tarsus 0·65.

*Female.* According to Shelley, similar to the male in plumage, including the yellow pectoral tufts. Wing 2·40 inches.

*Hab.* Natal.

*Obs.* One apparently very old male from Pinetown, March 20, has a faint glossy lustre on the crown and hind neck; the pectoral tufts are very bright; central pair of tail-feathers 2·4 inches long.

a. ♂ ad. sk.	Pinetown, March 20 ( <i>Ayres</i> ).	R. B. Sharpe, Esq.
b. ♂ ad. sk.	Port Natal.	R. B. Sharpe, Esq.
c. ♀ ad. sk.	Natal.	Dr. Gueinzus [C.].
d. [♀] ad. sk.	Natal.	T. Ayres, Esq. [C.].

34. *Cinnyris olivacina*.

*Cinnyris olivacina*, *Peters, J. f. O.* 1881, p. 50.

Similar to *C. olivacea*, but smaller. (*Peters.*)

*Hab.* Inhambane.

35. *Cinnyris cyanolæma*.

*Nectarinia cyanolæma*, *Jard. Contr. Orn.* 1851, p. 154; *Hartl. Orn. W.-Afr.* p. 51, no. 147 (1857); *Cass. Pr. Philad. Acad.* 1859, p. 36, no. 42; *Hartl. P. Z. S.* 1860, p. 110; *id. J. f. O.* 1860, p. 136; *id. J. f. O.* 1861, p. 109; *Gray, Hand-l. B. i.* p. 108, no. 1318 (1869); *Sharpe, Ibis*, 1870, p. 477; *id. Cat. Afr. B.* p. 37, no. 345 (1871); *id. P. Z. S.* 1871, p. 133; *Ussher, Ibis*, 1874, p. 58; *Bowier, Cat. Ois. Marche &c.* p. 13 (1875); *Bocage, Orn. d'Angola*, p. 176 (1877).

*Anthodiæta cyanolæma*, *Reichb. Handb. Scansoriæ*, p. 294, no. 688 (1854).

*Cinnyris cyanolæmus*, *Sharpe & Bowier, Bull. S. Z. Francee*, i. p. 41 (1876); *Shelley, Monogr. Nect.* p. 297, pl. 95.

*Adult male.* Anterior half of crown and whole throat metallic, with a greenish-blue gloss; sides of head and neck and all the rest of the body smoky brown, much paler on the breast, and inclining to ashy grey on the abdomen and flanks; pectoral tufts pale sulphur-yellow. Culmen 1 inch, wing 2·7, tail 2·1–2·3, tarsus 0·7.

*Female.* Wings and tail brown; each feather edged with olive like the rest of the upper parts; underparts dull white; throat and ear-coverts washed with pale brown; flanks and under tail-coverts inclining to dingy olive-yellow; ocular region whitish; bill and feet black. Wing 2·5 inches.

*Hab.* Guinea.

a. ♀ ad. st.	W. Africa.	L. Fraser, Esq. [C.].
b, c. ♂ ♀ ad. sk.	W. Africa.	L. Fraser, Esq. [C.].
d. ♂ ad. sk.	Fantee.	A. Swanzy, Esq. [P.].
e, f, g. ♂ imm. sk.	Fantee ( <i>Aubinn</i> ).	R. B. Sharpe, Esq.
h. ♀ ad. sk.	Fantee ( <i>Ussher</i> ).	R. B. Sharpe, Esq.
i. ♂ ad. sk.	Abrokonko, Jan. 1871 ( <i>Ussher</i> ).	R. B. Sharpe, Esq.
k. ♂ ad. sk.	Gaboon ( <i>Du Chaillu</i> ).	R. B. Sharpe, Esq.
l. ♂ ad. sk.	R. Ogowé ( <i>Marche</i> ).	R. B. Sharpe, Esq.
m. ♂ ad. sk.	Angola.	J. J. Monteiro, Esq. [C.].

### 36. *Cinnyris dussumieri*.

*Nectarinia dussumieri*, *Hartl. J. f. O.* 1860, p. 340; *E. Newton, P. Z. S.* 1867, p. 344; *id. Ibis*, 1867, pp. 336, 341, 359; *Hartl. Vög. Madag.* p. 90 (1877).

*Nectarinia seychellensis*, *Hartl. Orn. Madag.* p. 35 (1861); *Gray, Hand-l. B. i.* p. 107, no. 1302.

*Cinnyris dussumieri*, *Shelley, Monogr. Nect.* p. 293, pl. 93.

*Adult male.* All the upper parts, including the wings and the sides of the head, smoky brown; the feathers of the crown slightly edged with metallic green; tail black, with whitish tips; whole fore neck and chest metallic black-blue; large bright orange-coloured pectoral tufts; fore neck and chest ashy brown. Culmen 0·85 inch, wing 2·4, tail 1·6, tarsus 0·7.

*Female* without the pectoral tufts; fore neck and chest ashy brown; under wing-coverts almost white. Wing 2·2 inches.

*Hab.* Seychelle Islands.

a. ♀ ad. sk.	Seychelles, Jan. 29, 1867.	R. B. Sharpe, Esq.
b. ♂ ad. sk.	Seychelles, Feb. 15, 1867 ( <i>E. Newton</i> ).	R. B. Sharpe, Esq.
c. ♂ ad. sk.	Seychelles, Feb. 16, 1867.	R. B. Sharpe, Esq.

### 37. *Cinnyris hartlaubi*.

*Nectarinia hartlaubi*, *Ferr. in Hartl. Orn. W.-Afr.* p. 50, no. 143 (1857); *Hartl. J. f. O.* 1861, p. 109; *Dohrn, P. Z. S.* 1866, p. 326; *Gray, Hand-l. B. i.* p. 108, no. 1324 (1869); *Sharpe, Cat. Afr. B.* p. 37, no 346 (1871); *Bocage, Orn. d'Angola*, p. 179 (1877).

*Cinnyris hartlaubi*, *Shelley, Monogr. Nect.* p. 295, pl. 94.

*Adult male.* Crown and sides of head, hind neck, and back brownish olive; wing-coverts and quills dark brown, narrowly edged with olive; tail bluish black, the outer pairs of feathers with pale ends; some of the upper tail-coverts metallic bluish green; whole fore neck and chest black metallic, dark blue in positions B and C; under wing-coverts and axillaries white; pectoral tufts and sides whitish yellow; rest of the underparts dull yellow; breast strongly washed with olive-brown. Culmen 0·7-0·8 inch, wing 2·45, tail 2·1, tarsus 0·80.

*Female.* Similar to the male, but with the throat olive. Wing 2·30 inches.

*Hab.* Ilha do Principe, or Princes' Island, W. Africa.

a. ♂ ad. sk.	Princes' Island ( <i>Dr. Dohrn</i> ).	R. B. Sharpe, Esq.
b. ♂ ad. sk.	Princes' Island ( <i>Keulemans</i> ).	R. B. Sharpe, Esq.

### 38. *Cinnyris verticalis*.

- Ash-bellied Creeper, *Lath. Gen. Syn. Suppl.* p. 130, no. 51 (1787);  
*id. Gen. Hist. B.* iv. pp. 261, 262, no. 66, 66 var. a (1822).  
*Certhia verticalis*, *Lath. Ind. Orn.* i. p. 198, no. 57 (1790); *Shaw, Gen. Zool.* viii. p. 214 (1811).  
 Soui-manga à tête bleue, *Aud. et Vieill. Ois. Dor.* ii. p. 23, pl. 7 (1802).  
 Soui-manga vert et gris, *Aud. et Vieill. tom. cit.* p. 47, pl. 25; *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 515 (1819); *Drapiez, Dict. Class.* xv. p. 515 (1829); *Swains. B. W. Afr.* ii. p. 137 (1837).  
*Certhia cyanocephala*, *Shaw, Gen. Zool.* viii. p. 203 (1811).  
*Certhia dubia*, *Bechst. Kurze Uebers.* p. 193, no. 81.  
*Cinnyris cyanocephalus*, *Cuv. Règne Anim.* i. p. 412 (1817); *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 513 (1819); *Bonn. et Vieill. Enc. Méth.* ii. p. 587 (1823); *Less. Man. d'Orn.* ii. p. 48 (1828); *id. Traité d'Orn.* i. p. 295, no. 16 (1831); *Bp. C. A.* i. p. 406, no. 4 (1850).  
*Cinnyris dubius*, *Cuv. Règne Anim.* i. p. 412 (1817).  
 Blue-headed Creeper, *Lath. Gen. Hist. B.* iv. p. 256, no. 54 (1822).  
*Cinnyris chloronotus*, *Swains. B. W. Afr.* ii. p. 136, pl. 16 (1837); *Allen & Thoms. Exp. Niger*, ii. p. 221 (1848).  
*Nectarinia cyanocephala*, *Jard. Monogr. Sun-birds*, pp. 198, 254, pl. 10 (1842); *id. Ann. & Mag. Nat. Hist.* x. p. 187 (1842); *Hartl. Orn. W.-Afr.* pp. 49, 271 (1857); *Cass. Pr. Philad. Acad.* 1859, p. 36, no. 41; *Hartl. J. f. O.* 1860, p. 136, no. 80; *id. P. Z. S.* 1860, p. 110; *id. J. f. O.* 1861, p. 109; *Gray, Hand-l. B. i.* p. 108, no. 1325 (1869); *Sharpe, Ibis*, 1869, p. 188; *id. Cat. Afr. B.* p. 37, no. 349 (1871); *Shelley & Buckley, Ibis*, 1872, p. 287; *Sharpe, P. Z. S.* 1874, p. 306; *Ussher, Ibis*, 1874, p. 58; *Bouvier, Cat. Ois. Marche &c.* p. 14 (1875); *Reichenow, J. f. O.* 1875, p. 30, 1877, p. 25; *Bocage, Orn. d'Angola*, p. 171 (1877).  
*Nectarinia verticalis*, *Gray, Gen. B.* i. p. 98 (1847); *Bp. C. A.* i. p. 405 (1850); *Hartl. Orn. W.-Afr.* p. 50 (1857); *Cass. Pr. Philad. Acad.* 1859, p. 36, no. 46; *Hartl. J. f. O.* 1861, p. 109.  
*Cyanomitra cyanocephala*, *Reichb. Handb. Scansoriæ*, p. 291, no. 678, pl. 573. fig. 3906 (1854); *Oustal. N. Arch. Mus.* i. p. 89 (1878).  
*Leucochloridia verticalis*, *Reichb. tom. cit.* p. 312, no. 731, pl. 590. fig. 4002.  
*Cinnyris verticalis*, *Shelley, Monogr. Nect.* p. 301, pl. 97.



*Adult male.* Head all round, sides of neck, fore neck, and upper chest metallic blue, in position B with a strong green lustre, especially on the crown; rest of upper parts olive-yellow; inner web of quills and tail brown; all the underparts, including the under wing-coverts, leaden grey; pectoral tufts pale sulphur-yellow; bill and feet black.

*Adult female.* All the underparts grey; under wing-coverts and pectoral tufts white; upper parts as in the male.

*Young males* have the crown of the head olive-yellow; throat smoky grey or blackish; rest of underparts grey, strongly washed with dull yellow, especially on the chest.

♂. Culmen 1 inch, wing 2·6, tail 1·9, tarsus 0·70.

♀. Wing 2·3–2·4 inches, tail 1·60, tarsus 0·65.

*Hab.* West Africa, from Senegal to Angola.

*Obs.* This is the only species of *Cinnyris* in which both sexes have developed metallic colours; it therefore resembles some species of the genus *Anthothreptus*.

a. ♂ ad. st.	Gambia.	Purchased.
b. ♀ ad.; c. ♂ imm. sk.	Gambia.	R. B. Sharpe, Esq.
d. ♂ ad. sk.	Casamanze.	R. B. Sharpe, Esq.
e, f, g. ♂ imm. sk.	Fantee.	R. B. Sharpe, Esq.
h. ♂ ad. sk.	Elmina, April 1872 (Blissett).	R. B. Sharpe, Esq.
i. ♀ ad. sk.	Elmina, May 1872 (Blissett).	R. B. Sharpe, Esq.
k. ♂ imm. moult. sk.	Fantee (Ussher).	R. B. Sharpe, Esq.
l. ♂ ad. sk.	Fantee (Ussher).	R. B. Sharpe, Esq.
m. ♂ ad. sk.	Fantee (Aubinn).	R. B. Sharpe, Esq.
n. ♂ imm. sk.	Abrokonko, Jan. 2, 1871 (Ussher).	R. B. Sharpe, Esq.
o, p. ♂ ♀ ad. sk.	Ashantee.	J. Gould, Esq.
q, r. ♂ ad. sk.	River Volta (Governor Ussher).	R. B. Sharpe, Esq.
s. ♂ ad. sk.	Gaboon.	H. J. Ansell, Esq. [P.].
t. ♂ ad. sk.	Gaboon (Walker).	R. B. Sharpe, Esq.
u, v. ♂; w. ♀ ad. sk.	Gaboon.	R. B. Sharpe, Esq.
x. ♂ ad. sk.	Bembe, Angola.	J. J. Monteiro, Esq. [C.].

### 39. *Cinnyris reichenbachii*.

*Nectarinia reichenbachii*, Hartl. *Orn. W.-Afr.* p. 50 (1857); *Cass. Pr. Philad. Ac.* 1859, p. 36; *Heine, J. f. O.* 1860, p. 137; *Hartl. op. cit.* 1861, p. 109; *Sharpe, Ibis*, 1870, p. 478; *Reichenow, J. f. O.* 1875, p. 31; *Bouvier, Cat. Ois. Marche*, p. 14 (1875).

*Adelinus reichenbachii*, Oustal. *N. Arch. Mus.* i. p. 88 (1878).

*Cinnyris reichenbachii*, Shelley, *Monogr. Nect.* p. 299, pl. 96.

*Adult male.* Much resembling *C. verticalis* in general appearance. The metallic parts do not include the sides of the neck. With a purplish-blue gloss in position B, greenish-blue in position C; wings, their coverts, and tail dark brown; the outer edges of the quills

and the rest of the upper parts olive-yellow, brightest on the rump and upper tail-coverts; pectoral tufts rich orange-yellow; axillaries and under wing-coverts white; breast pale grey, changing into yellow on the flanks and abdomen; thighs and under tail-coverts yellow; bill much shorter than in *C. verticalis*. Culmen 0·6–0·8 inch, wing 2·30–2·60, tail 2, tarsus 0·70.

*Adult female.* All the upper parts olive-brown; tail blackish, edged with olive and slightly tipped with white; superciliary streak, cheeks, and underparts pale olive-yellow. Wing 2·2 inches.

*Immature males* have the crown olive-brown, the fore neck smoky blackish.

*Hab.* Guinea.

<i>a.</i> ♂ ad. sk.	Gaboon.	R. B. Sharpe, Esq.
<i>b, c.</i> ♂ imm. sk.	River Volta ( <i>Ussher</i> ).	R. B. Sharpe, Esq.

#### SIXTH GROUP (*Cyrtostomus*).

The species of this group have the upper parts olive-yellow; wings and greater coverts brown, edged with the colour of the back; inner web of quills edged with white; tail black, most of the feathers largely tipped with white; cheeks and the whole of the fore neck and chest metallic blackish blue; pectoral tufts well developed; breast and rest of underparts yellow or orange, except in *C. zenobia*, where they are only blackish; under wing-coverts yellowish white.—Indo-Malayan.

#### 40. *Cinnyris solaris*.

*Nectarinia solaris*, *Temm. Pl. Col.* pl. 347. fig. 3 (1825); *Jard. Monogr. Sun-birds*, pp. 215, 266 (1842); *S. Müll. 8. Schl. Naturw. Gesch., Aves*, p. 60, pl. 8. fig. 5 (1846); *Gray, Gen. B. i.* p. 98 (1847); *Wallace, P. Z. S.* 1863, p. 486; *Finsch, Neu-Guinea*, p. 163 (1865).

*Cinnyris solaris*, *Less. Man. d'Orn.* ii. p. 31 (1828); *id. Traité d'Orn.* i. p. 297, no. 25 (1831); *Blyth, Cat. B. Mus. As. Soc.* pp. 225, 228, no. 1365 (1849); *Bp. C. A. i.* p. 408, no. 42 (1850); *Wallace, Ibis*, 1861, p. 350; *Shelley, Monogr. Nect.* p. 171, pl. 54.

*Anthreptes solaris*, *Licht. Nomencl. Av.* p. 56 (1854).

*Cyrtostomus solaris*, *Reichb. Handb. Scansoriæ*, p. 308, no. 725, pl. 589. figs. 3995–96 (1854).

*Arachnothera solaris*, *Gray, Hand-l. B. i.* p. 112, no. 1386 (1869).

*Arachnechthra solaris*, *Walden, Ibis*, 1870, p. 32.

*Adult male.* Forehead, cheeks, fore neck, and chest metallic green in position B, inclining to blue in position C; central streak from chin to chest always purple; preocular region black; no superciliary streak; rest of upper parts olive-yellow; pectoral tufts bright yellow; breast rich orange-red, changing into orange-yellow on the abdomen and under tail-coverts; flanks washed with olive-yellow;

tips of tail-feathers whitish brown. Culmen 0·75 inch, wing 2·1–2·2, tail 1·5, tarsus 0·60.

*Female* with a yellow superciliary streak; no metallic colours; underparts uniform yellow.

*Hab.* Timor and Flores.

a. ♂ ad. sk.	Timor ( <i>A. R. Wallace</i> ).	Gould Collection.
b. ♂ ad. sk.	Timor.	A. R. Wallace, Esq. [C.].
c, d. ♂ ad. sk.	E. Timor.	A. R. Wallace, Esq. [C.].
e. ♂ ad. sk.	Semao, Timor.	A. R. Wallace, Esq. [C.].
f, g. Ad. sk.	Flores.	A. R. Wallace, Esq. [C.].
h. Ad. sk.	Flores ( <i>A. R. Wallace</i> ).	H. Seebohm, Esq. [P.].

#### 41. *Cinnyris flammaxillaris*.

*Nectarinia jugularis*, *Blyth, J. A. S. B.* xii. p. 979 (1843).

*Nectarinia flammaxillaris*, *Blyth, J. A. S. B.* xiv. p. 557 (1845), xv. p. 370 (1846); *id. Cat. B. Mus. As. Soc.* p. 226, no. 1367 (1849); *Gould, P. Z. S.* 1859, p. 151; *Swinhoe, Ibis*, 1866, p. 129; *Beavan, Ibis*, 1869, p. 420.

*Cinnyris flammaxillaris*, *Bp. C. A.* i. p. 408, no. 45 (1850); *Shelley, Monogr. Nect.* p. 161, pl. 51; *Oates, B. Brit. Burm.* i. p. 320.

*Cyrtostomus flammaxillaris*, *Horsf. & Moore, Cat. B. E.I. Co. Mus.* ii. p. 739, no. 1080 (1856); *Moore, P. Z. S.* 1859, p. 462.

*Arachnechthra flammaxillaris*, *Walden, P. Z. S.* 1866, p. 541; *id. Ibis*, 1870, p. 24; *Swinhoe, Ibis*, 1870, p. 239; *Walden, Ibis*, 1871, p. 167; *Hume, Nests and Eggs Ind. B.* p. 154 (1873); *Walden, Ibis*, 1876, p. 348; *Hume & Davis, Str. F.* 1878, p. 192.

*Arachnothera flammaxillaris*, *Gray, Hand-l. B.* i. p. 112, no. 1333 (1869).

#### *Andaman Race (C. andamanica).*

*Arachnechthra frenata*, *Ball, J. A. S. B.* xli. p. 280 (1872); *id. Str. F.* 1873, p. 65.

*Arachnechthra flammaxillaris*?, *Walden, Ibis*, 1873, p. 312.

*Arachnechthra andamanica*, *Hume, Str. F.* 1873, p. 404; *id. Str. F.* 1874, pp. 60, 105, 109, 198.

*Cinnyris andamanicus*, *Shelley, Monogr. Nect.* p. 157, pl. 50.

*Male in breeding-plumage.* Whole crown and rest of upper parts olive; sides of head brown; superciliary and præocular regions dark brown; pectoral tufts large, orange-yellow; tail black, with large white tips, narrowly edged with metallic green; whole fore neck metallic, the sides dark, the centre purple; across the chest a narrow brownish maroon collar, separated from the bright yellow of the underparts by a black or sooty brown pectoral band (this band varies much in extent, and may be altogether wanting in adult birds). Culmen 0·7 inch, wing 2·1, tail 1·4, tarsus 0·55.

*Female.* All the underparts bright yellow; a yellowish superciliary streak; no pectoral tufts. Wing 1·9 inch.

*Male in winter.* Like the female, but with pectoral tufts, and with a broad metallic gular stripe, thus leaving a broad yellow streak extending from the cheeks along the sides of the neck.

*Hab.* Burmese countries and Malayan peninsula.

*Andaman Race (C. andamanica).*

Birds from the Andaman and Nicobar Islands have a pale superciliary (often very indistinct) streak; sides of head olive like the mantle; the dusky blackish pectoral band between the yellow and the narrow maroon collar entirely suppressed; pectoral tufts gamboge-yellow; breast and abdomen perhaps a little paler yellow than these parts are in the typical *C. flammavillaris*; sides of neck more inclining to green than to olive. Wing 2.15 inches, tail 1.45.

<i>a, b.</i> ♂ ♀ ad. sk.	Pinang ( <i>Dr. Cantor</i> ).	India Museum.
<i>c.</i> ♀ ad.; <i>d, e.</i> ♂ imm. sk.	Pinang ( <i>Dr. Cantor</i> ).	India Museum.
<i>f.</i> ♀ ad. sk.	Pinang.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>g.</i> ♂ ad. sk.	Lower Pegu, Nov. 15, 1876.	E. W. Oates, Esq. [C.].
<i>h.</i> ♂ ad. sk.	Lower Pegu, Aug. 8, 1876.	E. W. Oates, Esq. [C.].
<i>i.</i> ♂ ad. sk.	Lower Pegu, May 26, 1876.	E. W. Oates, Esq. [C.].
<i>k.</i> ♂ moulting (winter plumage).	Lower Pegu.	E. W. Oates, Esq. [C.].
<i>l.</i> ♀ ad. sk.	Lower Pegu, Sept. 13, 1875.	E. W. Oates, Esq. [C.].
<i>m.</i> ♂ ad. sk.	Tavoy ( <i>Capt. Briggs</i> ).	Gould Collection.
<i>n.</i> ♂ ad. sk.	Tenasserim.	J. C. D. Packman, Esq. [P.].
<i>o.</i> ♂ ad. sk. (winter plumage).	Siam ( <i>Schomburgk</i> ).	Gould Collection.
<i>p.</i> ♂ ad. sk.	Cochin China.	M. E. Pierre [P.].
<i>q.</i> ♂ ad. sk.	Salanga Island, Jan. 1881.	Capt. Weber [C.].

*Andaman Race (C. andamanica).*

<i>a, b.</i> ♂ ♀ ad. sk.	Andaman Islands, Oct. 1873 ( <i>Capt. Wimberley</i> ).	R. B. Sharpe, Esq. [P.].
<i>c.</i> ♀ ad. sk.	Nicobar Islands, Jan. 18, 1874 ( <i>Capt. Wimberley</i> ).	R. B. Sharpe, Esq. [P.].

42. *Cinnyris jugularis*.A. *Northern Race (C. jugularis)*.

- ? Le Grimpereau des Philippines, *Briss. Orn.* iii. p. 613, no. 4, pl. 30. fig. 2 (1760).  
 Le Petit Grimpereau des Philippines, *Briss. tom. cit.* p. 616, no. 6, pl. 32. fig. 5; *Daub. Pl. Enl.* 576. fig. 3.  
 Le Grimpereau olive des Philippines, *Briss. tom. cit.* p. 623, no. 10, pl. 32. fig. 4; *Daub. Pl. Enl.* 576. fig. 4.  
*Certhia jugularis*, *Linn. S. N.* i. p. 185, no. 7 (1766, *ex Briss.* no. 6); *P. L. S. Müll. S. N.* ii. p. 256, no. 7 (1773); *Gm. S. N.* i. p. 474, no. 7 (1788).

- ? *Certhia philippina*, *Linm. S. N.* i. p. 187, no. 21 (1766, *ex Briss.* no. 4); *P. L. S. Müll. S. N.* ii. p. 260, no. 21 (1773); *Lath. Ind. Orn.* i. p. 293, no. 9 (1790).
- Certhia tricoloris*, *P. L. S. Müll. S. N., Anhang*, p. 99, no. 31 (1776, *ex Buff.* fig. 4).
- Premier Grimpercau de l'Isle de Luçon, *Somm. Voy. Nouv. Guin.* p. 63, pl. 30, fig. A (1776).
- Second Grimpercau de l'Isle de Luçon, *Somm. l. c.* fig. B.
- Soui-manga à gorge pourprée, *Montb. Hist. Ois.* v. p. 506 (1778).
- ? Philippine Creeper, *Lath. Gen. Syn.* ii. p. 711, no. 12 (1781).
- Grey Creeper, var. *a*, *Lath.* tom. cit. p. 714, no. 15 *a*; *id. Gen. Hist. B.* iv. p. 231, no. 19.
- Certhia quadricolor*, *Scop. Del. Faun. et Flor. Insub.* ii. p. 91, no. 69 (1786, *ex Somm.*).
- Certhia gularis*, *Sparrm. Mus. Carls.* pl. 79, "Martinique" (!) (1786); *Lath. Ind. Orn.* i. p. 300, no. 69 (1790).
- Certhia curucaria*, var.  $\beta$ , *Lath. Ind. Orn.* i. p. 286, no. 15  $\beta$  (1790).
- Soui-manga à gorge bleue, *Aud. et Vieill. Ois. Dor.* ii. pp. 51, 52, pls. 29, 30 (1802).
- Certhia curucaria et jugularis*, *Bechst. Kurze Uebers.* p. 180, no. 15 (1812).
- Cinnyris zeylonicus*, *Cuv. Règne Anim.* i. p. 412 (1817, *ex Daubent.* fig. 4); *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 507 (1819); *id. Encycl. Méth.* ii. p. 594 (1823).
- Certhia philippinensis* (part.), *Meyen, Reise*, Th. iii. p. 206 (1834).
- Certhia sperata*  $\sigma$ , *Meyen*, tom. cit. p. 207.
- Nectarinia jugularis*, *Jard. Monogr. Sun-birds*, pp. 228, 267, pl. 25, fig. 2 (1842); *Gray, Gen. B.* i. p. 98 (1847).
- Cœreba gularis*, *Gray, Gen. B.* i. p. 101, no. 4 (1847); *Bp. C. A.* i. p. 400, no. 4 (1850).
- Nectarinia pectoralis*, *Gray, Gen. B.* iii. *App.* p. 33 (1849, *ex Daubent.* fig. 4).
- Cyrtostomus jugularis*, *Cab. Mus. Hem.* i. p. 105, no. 570 (1850); *Reichb. Handb. Scansoriæ*, p. 308, no. 723, pl. 570, fig. 3889 (1854).
- Cyrtostomus gularis*, *Reichb. tom. cit.* p. 310, no. 728, pl. 589, fig. 3997.
- Arachnothera jugularis*, *Gray, Hand-l. B.* i. p. 112, no. 1339 (1869).
- Arachnechthra jugularis*, *Walden, Ibis*, 1870, p. 27; *id. Trans. Zool. Soc.* ix. p. 200 (1875).
- Cinnyris jugularis*, *Shelley, Monogr. Nect.* p. 151, pl. 48.

### B. Southern Race (*C. frenata*).

- Nectarinia frenata*, *S. Müll. Natuurl. Gesch. Land- en Volkenk.* p. 173 (1843); *id. op. cit., Zool. Av.* p. 61, no. 9, pl. 8, f. 1 (1846); *Gray, P. Z. S.* 1858, p. 173; *id. P. Z. S.* 1860, p. 348; *id. P. Z. S.* 1861, p. 433; *Wallace, P. Z. S.* 1862, pp. 335, 342; *Brüggem. Abhandl. nat. Ver. Bremen*, v. p. 73; *Finsch, Neu-Guinea*, p. 163 (1865); *Selat. P. Z. S.* 1877, pp. 103, 553; *Forbes, P. Z. S.* 1878, p. 125; *Selat. tom. cit.* p. 289.
- Nectarinia flavigastra*, *Gould, P. Z. S.* 1843, p. 104; *id. Voy. 'Sulphur'* p. 43, pl. 24 (1844).
- Nectarinia australis*, *Gould, P. Z. S.* 1850, p. 201; *Macgillivray, Voy. 'Rattlesnake'* ii. *App.* p. 357 (1852); *Gould, Handb. B. Australia*, i. p. 584 (1865); *id. B. Australia, Suppl.* pl. 45 (1869); *Diggles, Orn. Australia*.

- Cinnyris frenatus*, *Bp. C. A.* i. p. 408 (1850); *Ramsay, Proc. Linn. Soc. New S. Wales*, iii. p. 287 (1878); *Shelley, Monogr. Nect.* p. 153, pl. 49.
- Cyrtostomus frenatus*, *Reichb. Handb. Scansorie*, p. 309, no. 726, pl. 589, fig. 3998 (1854); *Bp. Comptes Rendus*, 1854, p. 265; *Salvad. Ann. Mus. Civ. Genova*, vii. pp. 400, 658, 777, 825 (1875), viii. p. 30 (1876), x. p. 143 (1877); *id. Atti R. Acc. Sc. Torino*, xii. p. 317 (1877); *id. P. Z. S.* 1878, p. 97; *id. Orn. Papuaasia*, ii. p. 265.
- Cyrtostomus australis*, *Reichb. tom. cit.* p. 309, no. 727, pl. 589, figs. 3999-4001.
- Arachnothera frenata*, *Gray, Hand-l. B.* i. p. 112, no. 1387 (1869).
- Arachnothera australis*, *Gray, tom. cit.* no. 1388.
- Arachnothera flavigastra*, *Gray, tom. cit.* no. 1391.
- Arachnechthra frenata*, *Walden, Ibis*, 1870, p. 26; *id. Tr. Z. S.* viii. p. 71 (1874); *Meyer, Ibis*, 1879, p. 131.
- Nectarinia eximia*, *Gray, P. Z. S.* 1858, p. 190; 1861, p. 433.
- ? *Nectarinia zenobia*, *Gray, P. Z. S.* 1859, p. 155; 1860, p. 348 (part.), "Gilolo;" 1861, p. 433 (part.), "New Guinea."

#### A. Northern Race (*C. jugularis*).

*Adult male.* Whole crown and upper parts yellowish olive; metallic parts black, blue-green in position B, more purple in C, except the sides of the neck, which always have a more or less green gloss; breast and rest of underparts uniform bright yellow. Culmen 0·85 inch, wing 2·1-2·35, tail 1·5, tarsus 0·55.

*Female.* Like the male, but the whole of the underparts bright yellow; no metallic colours; an indistinct yellow superciliary streak in most specimens. Wing 2·1 inches.

*Obs.* Sometimes some of the feathers of the chest near the metallic blue parts attain an orange tinge in old males (*e. g.* one specimen from the Negros Islands).

*Hab.* Philippines.

#### B. Southern Race (*C. frenata*).

*Male.* Olive-yellow above; cheeks and faint superciliary streak yellow; breast deeper yellow than in the Philippine form; fore neck and chest dark purplish blue, without any greenish gloss; the large tips to the tail yellowish white. The culmen is stronger than in *C. jugularis*, and measures 0·80-0·90 inch, wing 2·25-2·3, tail 1·5, tarsus 0·58.

*Female.* Like the male, but without the metallic blue throat and fore neck, these parts being rich yellow. Wing 2·2 inches. In one female from the Sula Islands the culmen measures 1 inch.

*Immature male.* Fore neck and throat metallic blue; but the sides of the neck are yellow.

*Hab.* Celebes, over the Moluccas and Papuan Islands to North-eastern Australia.

## A. Northern Race.

a. ♂ ad. st.	Philippines.	Hugh Cuming, Esq. [C.]
b. ♂ imm. sk.	Philippines.	Hugh Cuming, Esq. [C.]
c, d. ♂ ad. sk.	Camiguin.	Voy. of H.M.S. 'Challenger.'
e. ♂ ad. sk.	Ilo Ilo, Panay.	Voy. of H.M.S. 'Challenger.'
f. ♂ ad. sk.	Panay.	Prof. Steere [C.]
g. ♂ ad. sk.	Negros.	Prof. Steere [C.]
h, i. ♂ ♀ ad. sk.	Mindanao.	Prof. Steere [C.]

## B. Southern Race.

a, b. ♂ ♀ ad. st.	Cape York.	Capt. Stanley [P.]
c, d. ♂; e. ♀ ad. sk.	Cape York ( <i>Cockerell</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.]
f. ♂ imm. sk.	Cape York ( <i>Cockerell</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.]
g, h. ♂ ♀ ad. sk.	Cape York.	Voy. of H.M.S. 'Challenger.'
i. ♂; k, l. ♀ ad. sk.	Cape York.	Gould Collection.
m. ♂ imm. sk.	Cape York.	Gould Collection.
n. ♂ ad. sk.	Oomaga Island, Torres Straits ( <i>Capt. Iuce</i> ).	Mrs. Ince [P.]. (Type of <i>N. australis</i> , Gould. Spec. fig. Gould, B. Austr. l. e.)
o. ♂ ad. sk.	Prince of Wales' Island ( <i>Dr. Coppinger</i> ).	Voy. of H.M.S. 'Alert.'
p. ♀ ad.; q. ♂ imm. sk.	Thursday Island ( <i>Dr. Coppinger</i> ).	Voy. of H.M.S. 'Alert.'
r, s. ♀ ad.; t, u. ♂ imm. sk.	Admiralty Islands.	Voy. of H.M.S. 'Challenger.'
v. Juv. sk.	Salwatti.	A. R. Wallace, Esq. [C.]
w, x. ♂ ♀ ad. sk.	Mysol.	A. R. Wallace, Esq. [C.]
y. ♂ juv. sk.	Mysol, Sept. 1868 ( <i>Hoedt</i> ).	Gould Collection.
z, a'. ♂ ♀ ad. sk.	Aru Islands.	A. R. Wallace, Esq. [C.]
b'. ♂ ad. sk.	Aru Islands ( <i>Wallace</i> ).	Gould Collection.
c', d'. ♂ ♀ ad. sk.	Aru Islands.	Voy. of H.M.S. 'Challenger.'
e'. ♀ ad. sk.	Ceram.	A. R. Wallace, Esq. [C.]
f'. [♀] sk.	Gilolo.	A. R. Wallace, Esq. [C.]
g'. ♂ ad. sk.	Batchian.	A. R. Wallace, Esq. [C.]
h'. ♂ ad. sk.	Ternate.	A. R. Wallace, Esq. [C.]
i', k'. ♂ ♀ ad. sk.	Ternate.	Voy. of H.M.S. 'Challenger.'
l', m'. ♂ ♀ ad. sk.	North Celebes.	Gould Collection.
n'. Juv. sk.	Tondano, N. Celebes.	A. R. Wallace, Esq. [C.]
o'. ♂ ad.; p'. ♂ imm. sk.	Menado.	A. R. Wallace, Esq. [C.]
q'. ♀ ad. sk.	Menado ( <i>A. R. Wallace</i> ).	J. Gould, Esq. [C.]
r'. ♂ ad. sk.	Makassar.	A. R. Wallace, Esq. [C.]
s', t'. ♂ ♀ ad. sk.	Sula Islands.	A. R. Wallace, Esq. [C.]

43. *Cinnyris aurora*.

*Cyrtostomus aurora*, *Twecdale*, *P. Z. S.* 1878, p. 620.

*Cinnyris aurora*, *Shelley*, *Monogr. Nect.* p. 149.

Feathers of forehead tipped with metallic blue; chest and upper breast washed with bright orange; ear-coverts olive; lores blackish; in all the other parts resembling *C. jugularis*; yellow pectoral tufts present.

♂. Culmen 1·00 inch, wing 2·25, tail 1·62, tarsus 0·62.

♀. „ „ 0·87 „ „ 2·0, „ 1·62, „ 0·60.

(*Twecdale*.)

*Hab.* Palawan.

44. *Cinnyris flammans*.

*Æthopyga flammans*, *Oustalet*, *Journ. de l'Institut*, 1876, p. 108.

*Cinnyris flammans*, *Shelley*, *Monogr. Nect.* p. 147, pl. 47. fig. 2.

*Adult male*. Forehead and chin metallic violet; upper tail-coverts metallic green; tail black, edged with metallic green and violet; the mantle, back, and outer edges of the dark brown wings olive-yellow; chin, sides of head, sides of neck, and fore neck black, this colour extending likewise over the sides of the upper breast; no pectoral tufts; centre of fore neck and chest bright orange-red, which colour passes gradually into the pale yellow of the rest of the underparts. Culmen 0·7 inch, wing 2, tail 1·3, tarsus 0·5.

*Hab.* Luzon,

45. *Cinnyris pectoralis*.

*Nectarinia pectoralis*, *Horsf. Tr. Linn. Soc.* xiii. p. 167 (1820); *Vigors*, *Mem. Raffles*, p. 673 (1831); *Jard. Monogr. Sun-birds*, pp. 226, 266, pl. 25. fig. 1; *Blyth*, *J. A. S. B.* xv. p. 370 (1846); *Gray*, *Gen. B.* i. p. 98 (1847); *Blyth*, *Cat. B. Mus. As. Soc.* p. 225, no. 1366 (1849); *Motley & Dillwyn*, *Nat. Hist. Labuan*, p. 15 (1855); *Hartl. J. f. O.* 1855, p. 319; *Selat. P. Z. S.* 1863, p. 220; *Wallace*, *tom. cit.* p. 486; *Pelzeln*, *Reise Novara, Vög.* pp. 52, 161 (1865); *Tytler & Beavan*, *Ibis*, 1867, p. 322; *Ball*, *Str. F.* 1874, p. 334.

*Pectoral Creeper*, *Lath. Gen. Hist. B.* iv. p. 266, no. 75 (1822).

*Nectarinia eximia*, *Temm. Pl. Col.* 138. figs. 1, 2 (1823); *S. Müll. & Schl. Verh. Nat. Gesch., Zool. Ar.* p. 61, no. 10 (1846); *Finsch*, *Neu-Guinea*, p. 163 (1865).

*Cinnyris ornatus*, *Less. Dict. Sc. Nat.* i. p. 15 (1827, *ex Temm. Pl. Col.* 138. figs. 1, 2); *id. Man. d'Orn.* ii. p. 36 (1828).

*Cinnyris luteoventer*, *Less. Traité d'Orn.* i. p. 298, no. 29 (1831); *Pucheran*, *Rev. et Mag. Zool.* 1853, p. 488.

*Cinnyris pectoralis*, *Bp. C. A.* i. p. 408, no. 43 (1850); *Bernstein*, *J. f. O.* 1859, p. 279; *Sharpe*, *P. Z. S.* 1875, p. 106; *Nicholson*, *Ibis*, 1879, p. 166; *Sharpe*, *tom. cit.* p. 259; *id. P. Z. S.* 1879, p. 341; *Shelley*, *Monogr. Nect.* p. 165, pl. 53.

*Cyrtostomus pectoralis*, *Cab. Mus. Hein.* i. p. 105 (1850); *Reichb. Handb. Scansoriae*, p. 307, no. 722, pl. 570. figs. 3891-92 (1854); *Horsf. & Moore*, *Cat. B. E.I. Co. Mus.* ii. p. 739, no. 1079 (1856); *Hume*, *Nests and Eggs Ind. B.* p. 155 (1873); *Salvad. Ann. Mus.*



*Civ. Genova*, v. p. 170 (1874); *id. Ann. Mus. Civ. Genova*, xiv. p. 212 (1879).

*Cyrtostomus eximius*, *Bp. Comptes Rendus*, 1854, p. 265.

*Arachnothera pectoralis*, *Gray, Hand-l. B.* i. p. 112, no. 1385 (1869).

*Arachnechthra pectoralis*, *Walden, Ibis*, 1870, p. 25; *Ball, Str. F.* 1872, p. 64; *Hume, Str. F.* 1874, p. 196; *Ball, J. A. S. B.* xxxix. p. 31 (1870); *Tweedd. Ibis*, 1877, p. 302.

*Adult male.* Fore neck and cheeks metallic blue, with a purple or greenish gloss; no light superciliary streak; pectoral tufts gamboge-yellow; loreal and præocular region black; all the other parts coloured as in *C. frenata*. Culmen 0·7 inch, wing 2-2·25, tail 1·5, tarsus 0·55-0·60.

*Female.* Resembles that of *C. frenata* in coloration. Wing 1·85-2·1.

*Male in winter plumage.* Sides of neck and cheeks yellow, only a broad longitudinal band running down the fore neck.

*Obs.* Many adult specimens from Labuan, Java, and Lombok have some of the chest-feathers tipped with maroon, or washed with dusky black, thus indicating the close relationship to the collared species, and at the same time proving the insignificance of such differences in coloration.

*Hab.* Malayan peninsula; Indo-Malayan islands; Nicobars.

a. ♂ juv. sk.	Malacca.	A. R. Wallace, Esq. [C.].
b. ♀ or juv. sk.	Malacca.	Capt. Stackhouse Pinwill [P.].
c. ♂ ad. sk.	Nicobars, July 1874 ( <i>Wimberley</i> ).	R. B. Sharpe, Esq. [P.].
d. ♂ imm. sk.	Sumatra.	A. R. Wallace, Esq. [C.].
e. ♂ ad. sk.	Sumatra.	Gould Collection.
f. ♂ ad. sk.	Sumatra.	F. D. Godman and O. Salvin, Esqrs. [P.].
g, h. ♂ ad. sk.	Labuan ( <i>H. Low</i> ).	R. B. Sharpe, Esq. [P.].
i. ♀ ad. sk.	Banjermassing.	J. Motley, Esq. [C.].
k. ♂ ad. st.	Java.	Sir E. Belcher [P.].
l, m. ♂; n, o. ♀ ad. sk.	Java ( <i>Horsfield</i> ).	India Museum. (Types of species.)
p, q. ♂ ♀ ad. sk.	Java ( <i>Diard</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].
r. ♂ juv. sk.	East Java.	A. R. Wallace, Esq. [C.].
s, t. ♂ ♀ ad. sk.	West Java ( <i>Buxton</i> ).	F. Nicholson, Esq. [P.].
u. ♂ ad. sk.	Java.	Purchased.
v, w. ♀ ad. sk.	Java.	Gould Collection.
x, y. ♂ ♀ ad. sk.	Lombok ( <i>Wallace</i> ).	Gould Collection.
z, a'. ♂ ad. sk.	Lombok.	A. R. Wallace, Esq. [C.].
b'. ♂ ad. sk.	Flores.	A. R. Wallace, Esq. [C.].
c'. ♂ ad. sk.	Flores ( <i>Wallace</i> ).	H. Seebohm, Esq. [P.].
d'. Ad. in spirit.	Java.	R. B. Sharpe, Esq. [P.].

#### 46. *Cinnyris rhizophoræ*.

*Arachnechthra rhizophoræ*, *Swinhoe, Ann. & Mag. Nat. Hist.* 4th ser. iv. p. 436 (1869); *Walden, Ibis*, 1870, p. 25; *Swinhoe, tom. cit.* p. 237; *id. P. Z. S.* 1871, p. 349; *David & Oust. Ois. Chine*, p. 82.  
*Cinnyris rhizophoræ*, *Shelley, Monogr. Nect.* p. 163, pl. 52.

*Adult male.* Like the typical *C. flammavillaris*, with a strongly pronounced maroon collar and with a broad sooty black chest; a small part of the forehead metallic blue; pectoral tufts large, gamboge-yellow; lower breast, abdomen, and flanks pale yellow, washed with cream-colour. Culmen 0·70 inch, wing 2·1, tail 1·4.

*Female.* Whole throat, cheeks, and fore neck dull yellow; rest of underparts pale yellow and creamy. Wing 1·9 inch.

*Immature* males have no blue feathers on the forehead.

*Hab.* Hainan.

a. ♂ ad. sk.	Hainan, February 1868.	Consul Swinhoe [C.].
b. ♀ ad. sk.	Hainan, March 1868.	Consul Swinhoe [C.].
c. ♂ ad. sk.	Hainan, February 1868 (Swinhoe).	F. D. Godman and O. Salvin, Esqrs. [P.].

#### 47. *Cinnyris zenobia*.

? Tufted Creeper, *Lath. Syn. Suppl.* p. 132, no. 57 (1787); *id. Gen. Hist. B.* iv. p. 251, no. 46 (1822).

? *Certhia cirrhata*, *Lath. Ind. Orn.* i. p. 299, no. 62 (1790); *Shaw, Gen. Zool.* viii. p. 271 (1811).

? Soui-manga à touffes jaunes, *Aud. et Vieill. Ois. Dor.* ii. p. 65 (1802).

? *Cinnyris cirrhatus*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 495 (1819); *Bonn. et Vieill. Enc. Méth.* ii. p. 599 (1823); *Less. Man. d'Orn.* ii. p. 29 (1828).

*Cinnyris zenobia*, *Less. Voy. Coq., Zool.* i. p. 670, no. 104, pl. 30. fig. 3 (1826); *Bp. C. A.* i. p. 409, no. 50 (1850); *Rosenb. J. f. O.* 1864, p. 193 (part.); *Shelley, Monogr. Nect.* p. 173, pl. 55.

*Cinnyris clementiæ*, *Less. Dict. Sc. Nat.* i. p. 18 (1827); *id. Man. d'Orn.* ii. p. 40 (1828).

? *Nectarinia cirrhata*, *Drapiez, Dict. Class.* xv. p. 509 (1829).

*Nectarinia clementiæ*, *Drapiez, tom. cit.* p. 510.

*Nectarinia zenobia*, *Jard. Monogr. Sun-birds*, p. 272 (1842); *S. Müll. & Schl. Naturh. Gesch., Zool. Aves*, p. 60 (1846); *Gray, Gen. B.* i. p. 98 (1847); *id. P. Z. S.* 1858, p. 173, 1860, p. 348 (part.), 1861, p. 433 (part.); *Wallace, P. Z. S.* 1863, p. 32; *Finsch, Neu-Guinea*, p. 163 (1865, part.).

*Chalcostetha zenobia*, *Reichb. Handb. Scansoriae*, p. 286, no. 663, pl. 572. fig. 3900 (1854).

? *Nectarinia solaris*, *Gray, P. Z. S.* 1860, p. 348.

*Arachnothera zenobia*, *Gray, Hand-l. B.* i. p. 110, no. 1361 (1869).

*Arachnothra zenobia*, *Walden, Ibis*, 1870, p. 30.

*Cyrtostomus zenobia*, *Salvad. Ann. Mus. Civ. Genova*, viii. p. 379 (1876); *id. Atti R. Acc. Torino*, xii. p. 319 (1877); *id. Orn. Papuasia*, ii. p. 262.

*Adult male.* All the upper parts olive-yellow, the yellow strongly pronounced; tail black, without or with scarcely any pale tips; fore neck metallic blue, purple in the centre, greenish towards the sides; pectoral tufts rich gamboge-yellow: breast and all the rest of the underparts, including the under wing-coverts and the edge of the wing, black with a velvety blue gloss; flanks sooty, or washed with olive-brown; inner web of quills with pale edges. Culmen 0·90 inch, wing 2·05–2·15, tail 1·4, tarsus 0·58

*Female.* Underparts uniform bright yellow; supercilium and cheeks yellow. Culmen 0·85 inch, wing 1·9–2·1, tail 1·25.

*Obs. 1.* One adult male from the Ké Islands has some of the feathers of the chest tipped with brownish maroon, thus indicating the collar of *C. flammavillaris*, from which species *C. zenobia* differs chiefly by having the underparts black instead of yellow.

*Obs. 2.* In several males some of the frontal feathers are edged with metallic blue.

*Hab.* Ké Islands, Ceram, Amboina, Bouru.

<i>a, b, c.</i> ♂ ad. sk.	Amboina.	'Challenger' Expedition.
<i>d.</i> ♂ ad. sk.	Ceram ( <i>Wallace</i> ).	J. Gould, Esq.
<i>e, f.</i> ♂: <i>g.</i> ♀ ad. sk.	Ceram.	A. R. Wallace, Esq. [C.].
<i>h.</i> ♂ ad. sk.	Ké Islands.	A. R. Wallace, Esq. [C.].
<i>i, k.</i> ♂ ♀ ad. sk.	Bouru.	A. R. Wallace, Esq. [C.].

#### SEVENTH GROUP (*Chalcomitra*).

The species of this group have the head, back, and neck all round metallic greenish blue; across the throat a collar, which is either dark metallic or scarlet; wings and greater coverts uniform brownish; tail black. Pectoral tufts only in *C. fuliginosa*. Rest of underparts varying from pale ash brown through yellow to white. The feathers of the lower back are very long and fluffy and dull white, olive-yellowish, &c., generally concealed by the shorter metallic feathers. Bill and feet black; iris dark brown.—African.

#### 48. *Cinnyris gutturalis*.

Le Grimpereau noirastre du Brésil, *Briss. Orn.* iii. p. 658, pl. 33. f. 3 (1760).

*Certhia gutturalis*, *Linn. S. N.* i. p. 186, no. 15 (1766, *ex Briss.*); *P. L. S. Müll. S. N.* ii. p. 258, no. 14 (1773); *Gm. S. N.* i. p. 478 (1778); *Lath. Ind. Orn.* i. p. 291, no. 32 (1790); *Shaw, Nat. Misc.* xix. pl. 797; *id. Gen. Zool.* viii. p. 255 (1811).

Grimpereau brun du Brésil, *Daubent. Pl. Enl.* 578. f. 3.

L'Oiseau brun à bec de Grimpereau, *Daubent. Hist. Nat.* v. p. 525 (1778).

Green-faced Creeper, *Lath. Gen. Syn.* ii. p. 723, no. 24 (1782); *id. Gen. Hist. B.* iv. p. 267, no. 78 (1822).

Le Soui-manga noirâtre, *Aud. et Vieill. Ois. Dor.* ii. p. 65 (1802).

Le Sucrier Protée, *Levaill. Ois. d'Afr.* vi. p. 165 (1808, part.); *Sunder. Krit. Framst.*, *Levaill.* p. 57 (1857).

*Cinnyris gutturalis*, *Cuv. Règ. Anim.* i. p. 412 (1817); *Cab. in Von der Decken's Reise*, iii. p. 28, no. 22 (1869).

*Cinnyris senegalensis*, *Hahn, Orn. Atlas, Cinnyris*, pl. 1 (1834).

*Nectarinia natalensis*, *Jard. Monogr. Sun-birds*, pp. 193, 256, pl. 12 (1843); *id. Contr. Orn.* 1849, p. 62, pl. 12; *Sclat. op. cit.* 1852, p. 124; *Gurney, Ibis*, 1860, p. 207; *Bocage, Journ. Lisb.* i. pp. 135, 332 (1867), ii. p. 41 (1868); *Layard, B. S. Afr.* p. 80, no. 134 (1867); *Finsch, J. f. O.* 1867, p. 246; *Sperling, Ibis*, 1868, p. 289.

- Cœreba gutturalis*, *Gray, Gen. B. i. p. 101 (1847); Bp. C. A. i. p. 400, no. 3 (1850).*
- Cinnyris natalensis*, *Bp. C. A. i. p. 408, no. 35 (1850); Cab. Mus. Hein. i. p. 102 (1850).*
- Cinnyris discolor*, *Bianconi, Spec. Zool. Mosamb. iii. p. 32 (1850, nec Vieill.); id. Contr. Orn. 1852, p. 134.*
- Cinnyris bianconii*, *Hartl. Contr. Orn. 1852, p. 78.*
- Nectarinia senegalensis*, *Strickl. & Selat. Contr. Orn. 1852, p. 152; Layard, B. S. Afr. p. 80, no. 133 (1867); Chapman, Trav. S. Afr. ii. App. p. 407 (1868).*
- Chalcomitra gutturalis*, *Reichb. Handb. Scansoriae, p. 277, no. 642 (1854); Gurney, in Andersson's B. Damara Land, p. 73 (1872).*
- Chalcomitra natalensis*, *Reichb. tom. cit. p. 278, no. 644, pl. 607. fig. 4077, pl. 571. fig. 3893.*
- Chalcomitra cruentata*, *Reichb. tom. cit. p. 279, no. 645 (part.).*
- Nectarinia bianconi*, *Kirk, Ibis, 1864, p. 320; Gray, Hand-l. B. i. p. 107, no. 1308 (1869); Sharpe, Cat. Afr. B. p. 39, no. 365 (1871).*
- Nectarinia gutturalis*, *Hartl. P. Z. S. 1867, p. 824; Sperling, Ibis, 1868, p. 289; Gray, Hand-l. B. i. p. 107, no. 1307 (1869); Sharpe, P. Z. S. 1869, p. 566; Finsch & Hartl. Vög. Ost-Afr. p. 216 (1870); Sharpe, Cat. Afr. B. p. 39, no. 364 (1871); Buckley, Ibis, 1874, p. 374; Shelley, Ibis, 1875, p. 70; Bocage, Journ. Lisb. 1876, p. 6.*
- Nectarinia gutturalis*, *Bocage, Journ. Lisb. 1868, p. 2, 1873, p. 197, 1874, p. 51, 1876, pp. 151, 162, 1877, p. 66; id. Orn. d'Angola, p. 164 (1877); Fischer, J. f. O. 1877, pp. 178, 208; id. & Reichen. tom. cit. p. 260.*
- Cinnyris gutturalis*, *Sharpe, ed. Layard's B. S. Afr. p. 311 (1876); Shelley, Monogr. Nect. p. 261, pl. 81; id. P. Z. S. 1879, pl. 570.*

*Adult male.* Anterior half of crown, cheeks, and upper half of throat metallic black, splendid dark green (throat golden green) in position B; a patch near the shoulder purplish blue in positions B and C, otherwise metallic black; feathers of the centre of the lower fore neck and the whole chest brilliant crimson-red, and with a metallic subterminal blue bar, which gives these parts a brilliant mottled appearance; wings and tail dark golden brown; all the rest of the body, including the sides of the head, the upper half of the throat, under and lesser wing-coverts, blackish chocolate-brown, sometimes inclining to sooty black on the underparts; under surface of quills rich golden brown; inner webs without paler edges. Culmen 1·2 inch, wing 2·7-3·1, tail 2·2, tarsus 0·70.

*Female.* Upper parts and sides of head earthy brown; most of the wing-coverts edged with white; tail faintly tipped with whitish; underparts mottled with yellowish and brownish buff, especially on the fore neck and chest. Wing 2·75 inches.

*Obs.* The smallest specimens of *C. gutturalis* occur in the Zanzibar district, the largest in Natal.

*Hab.* East Africa from Mombas to the Zambesi, and southwards to Natal, occurring in Damara Land, Benguela, and Angola on the western side of the continent.

<i>a, b, c.</i> ♂ ad. sk.	Mombasa ( <i>Wakefield</i> ).	R. B. Sharpe, Esq. [P.].
<i>d.</i> ♂ ad. sk.	Mombasa.	Rev. H. Fowell Buxton [P.].
<i>e.</i> ♂ ad. sk.	Zanzibar.	Sir J. Kirk [C.].
<i>f.</i> ♂ ad. sk.	Zanzibar ( <i>Kirk</i> ).	R. B. Sharpe, Esq.
<i>g.</i> ♂ ad. st.	Mozambique.	Prof. Bianconi [P.].
<i>h.</i> ♂ ad. sk.	Mozambique.	Dr. Gueinzus [C.].
<i>i.</i> ♂ imm. sk.	Zambesi.	R. B. Sharpe, Esq.
<i>k.</i> ♀ ad. sk.	Shupanga, Zambesi.	Sir J. Kirk [C.].
<i>l.</i> ♂ ad.; <i>m.</i> ♂ juv. sk.	Tete, Zambesi.	Sir J. Kirk [C.].
<i>n.</i> ♂ ad. sk.	Zambesi ( <i>Meller</i> ).	R. B. Sharpe, Esq.
<i>o.</i> ♂ ad. sk.	Makalaka Country.	Dr. F. Bradshaw [C.].
<i>p.</i> ♂ ad. sk.	Impakwe River ( <i>F. Oates</i> ).	W. E. and C. G. Oates, Esqrs. [P.].
<i>q.</i> ♂ ad. sk.	Tati, March ( <i>F. Oates</i> ).	W. E. and C. G. Oates, Esqrs. [P.].
<i>r.</i> ♀ ad. sk.	Bamangwato, Oct. 19.	T. E. Buckley, Esq. [P.].
<i>s.</i> ♂; <i>t, u.</i> ♀ ad. sk.	Port Natal.	R. B. Sharpe, Esq.
<i>v.</i> ♂ imm. sk.	Port Natal.	Purchased.
<i>w.</i> ♀ ad. sk.	Elephant Vley, Damara Land, Oct. 9 ( <i>C. J. Andersson</i> ).	R. B. Sharpe, Esq.
<i>x.</i> ♀ ad.; <i>y.</i> ♂ juv. sk.	Otjimbingue, Aug. and Sept. ( <i>C. J. A.</i> ).	R. B. Sharpe, Esq.
<i>z.</i> ♀ ad. sk.	Otjimbingue, Sept. ( <i>C. J. A.</i> ).	R. B. Sharpe, Esq.
<i>a'</i> ♀ ad. sk.	Omanbondé, Nov. 23 ( <i>C. J. A.</i> ).	R. B. Sharpe, Esq.
<i>b'</i> ♂ ad. sk.	Benguela.	J. J. Monteiro, Esq. [C.].
<i>c', d'.</i> ♂ imm. sk.	Kattenbella, Benguela ( <i>Sala</i> ).	R. B. Sharpe, Esq.
<i>e'</i> ♂ ad. sk.	Rio Chimba ( <i>Anchieta</i> ).	R. B. Sharpe, Esq.
<i>f'</i> ♂ ad. sk.	Columbo, Rio Quanza ( <i>Monteiro</i> ).	R. B. Sharpe, Esq.

49. *Cinnyris cruentata*.

- Cinnyris proteus*, Rüpp. *Neue Würbelth.* p. 91 (1835).  
*Nectarinia cruentata*, Rüpp. *Syst. Uebers.* pp. 26, 28, pl. 9 (1845);  
*Heugl. Syst. Uebers. Vög. N.O.-Afr.* p. 21 (1856); *id. J. f. O.*  
 1861, p. 194; *id. Reise weiss. Nil*, p. 337 (1869); *Finsch, Trans.*  
*Zool. Soc.* vii. p. 229 (1869); *id. & Hartl. Vög. Ost-Afr.* p. 217,  
 note (1870); *Blanf. Geol. & Zool. Abyss.* p. 352 (1870); *Heugl.*  
*Orn. N.O.-Afr.* p. 228 (1871).  
 Soui-manga à poitrine ensanglantée, *Lefebvre, Voy. Abyss.* p. 87  
 (1845-50).  
*Cinnyris cruentatus*, *Ferr. et Gal. Voy. Abyss.* iii. p. 248 (1847);  
*Bp. C. A.* i. p. 406 (1850); *Shelley, Monogr. Nect.* p. 259, pl. 80.  
*Nectarinia natalensis*, *Scat. Contr. Orn.* 1852, p. 124.  
*Chalcomitra cruentata*, *Reichenb. Handb. Scunsor.* p. 279, pl. 567.  
 figs. 3864-65 (1854); *Antin. & Salvad. Ann. Mus. Civ. Gen.* iv.  
 p. 450 (1873).

*Adult male.* Like *C. gutturalis*, but with the upper throat chocolate-black instead of metallic green; wings and tail slightly paler brown than in the other species; a streak along the cheeks rich metallic green, ending with blue. Culmen 1 inch, wing 2·8, tail 2·2, tarsus 0·65.

*Female.* All the upper parts and the sides of the head earthy brown, with a slight olive tinge; wings and tail brown; throat sooty brown or blackish: rest of the underparts, including a line along the cheeks and sides of the neck, dull yellowish; chest, breast, and under wing-coverts mottled with brown, only the terminal parts of the feathers being yellowish. Wing 2·5 inches.

In the *young male* the plumage of the adult bird begins to appear with the red feathers on the chest; then follows the metallic crown &c.

*Hab.* North-eastern Africa.

a, b. ♂ ♀ ad. st.	Abyssinia.	Purchased.
c, d. ♂ ad.; e. ♀ ad. sk.	Bogoso Land ( <i>Esler</i> ).	R. B. Sharpe, Esq.
f. ♂ imm. sk.	Bogoso Land ( <i>Esler</i> ).	R. B. Sharpe, Esq.
g. ♂ ad. sk.	Bejook ( <i>Jesse</i> ).	R. B. Sharpe, Esq.
h. [♂] juv. sk.	Abyssinia ( <i>Jesse</i> ).	R. B. Sharpe, Esq.
i. ♂ ad.; k. ♂ imm. sk.	Senafé, Tigré, 7500 feet, March 1868.	W. T. Blanford, Esq. [C.]
l. ♀ ad. sk.	Anseba valley, 4000 feet, July 21, 1868.	W. T. Blanford, Esq. [C.]
m. [♂] juv. sk.	Tete, Zambesi.	Sir J. Kirk [C.]

### 50. *Cinnyris senegalensis*.

- Grimpereau violet du Sénégal, *Briss. Orn.* iii. p. 660, pl. 34. fig. 2 (1760).  
*Certhia senegalensis*, *Linm. S. N.* i. p. 186; *P. L. S. Müll. S. N.* ii. p. 258 (1773); *Gm. S. N.* i. p. 477 (1783); *Lath. Ind. Orn.* i. p. 284 (1790); *Shaw, Gen. Zool.* viii. p. 205, pl. 79. figs. 1 & 2 (1811).  
 Soui-manga violet à poitrine rouge, *Montb. Hist. Ois.* v. p. 500 (1778); *Aud. et Vieill. Ois. Dor.* ii. p. 25, pl. 8 (1802).  
 Senegal Creeper, *Lath. Gen. Syn. B.* ii. p. 209 (1782); *id. Gen. Hist. B.* iv. p. 236, note † (1822).  
 Sucrier Protée (pt.), *Levaill. Ois. d'Afr.* vi. p. 165, pl. 295. fig. 2 (1808); *Sundev. Krit. Framst., Levaill.* p. 57 (1857).  
*Cinnyris senegalensis*, *Cuv. Règne Anim.* i. p. 412 (1817); *Halm, Orn. Atlas, Cinnyris*, p. 2 (1834); *Swains. B. W. Afr.* ii. p. 127 (1837); *Bp. C. A.* i. p. 403 (1850); *Cab. Mus. Hein.* i. p. 102 (1850); *Shelley, Monogr. Nect.* p. 267, pl. 83.  
*Cinnyris discolor*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 519 (1819); *Bonn. et Vieill. Enc. Méth.* ii. p. 589 (1823); *Less. Man. d'Orn.* ii. p. 46 (1828).  
*Nectarinia senegalensis*, *Licht. Verz. Doubl.* p. 15 (1823); *Drapiez, Dict. Class.* xv. p. 515 (1829); *Kittl. Kupfert. Vög.* p. 22, p. 28, fig. 2 (1833); *Jard. Monogr. Sun-birds*, pp. 191, 255, pl. 11 (1842); *Hartl. Orn. W.-Afr.* p. 49 (1857); *Dohrn, P. Z. S.* 1866, p. 331; *Bocage, Journ. Lisb.* i. p. 135 (1866).  
*Chalcomitra senegalensis*, *Reichenb. Handb. Scansor.* p. 278, pl. 567. figs. 3866-67 (1854).

*C. acik* of Heuglin.

- Nectarinia natalensis*, *Antin. Cat.* p. 34 (1864, *nec Jardine*); *Heugl. J. f. O.* 1867, p. 202; *Salvad. Atti R. Acc. Torin.* p. 731, pl. 1. fig. 2.

Nectarinia cruentata (pt.), *Heugl. J. f. O.* 1864, p. 262; *id. Syst. Uebers.* p. 21 (1856).

Nectarinia acik, *Antin. J. f. O.* 1866, p. 205; *Heugl. Orn. N.O.-Afr.* i. p. 230 (1871); *Finsch & Hartl. Vög. Ost-Afr.* pp. 217, 861 (1870).

Nectarinia senegalensis vel acik, *Heugl. Reise weiss. Nil*, p. 337 (1869).

Cinnyris acik, *Shelley, Monogr. Nect.* p. 265, pl. 82.

*Adult male.* Closely allied to *C. gutturalis*, but smaller in size, and the red colour extending beyond the chest over the greater part of the breast, while the metallic bars have a greenish gloss instead of blue in position B; wings and tail golden brown, and much paler than in *C. gutturalis*; shoulders and least wing-coverts without any metallic colours. Culmen 0.95 inch, wing 2.6-2.7, tail 1.7, tarsus 0.65.

*Adult female.* Fore neck dull blackish; rest of underparts dingy yellow mottled with brown; wing-coverts, and sometimes the tail, edged with white. The female of this species therefore resembles that of *C. cruentata* in its underparts and *C. gutturalis* in its upper parts. Wing 2.5 inches.

*Obs.* Specimens from the White-Nile district (*C. acik*) are said to have the wings and the tail as dark as these parts are in *C. gutturalis*, "the metallic bars on the scarlet feathers being steel-blue, and only slightly glossed with green." In size, in the absence of metallic colours on the shoulders, and in other respects they resemble *C. senegalensis* perfectly. These specimens appear to be different only if compared with *C. cruentata* from the neighbouring countries; but if compared with the western form, they prove to be the same.

*Hab.* Soudan, from Senegal to Gaboon, and extending to the White-Nile district.

<i>a, b, c.</i> ♂ ♀ ad. st.	West Africa.	Sir E. Sabine [P.]
<i>d, e.</i> ♂ ad. sk.	West Africa.	Purchased.
<i>f, g.</i> ♂ ♀ ad. sk.;	Bissao.	R. B. Sharpe, Esq.
<i>h, i.</i> ♂ juv. sk.		
<i>k.</i> ♂ ad. sk.	Casamanze.	R. B. Sharpe, Esq.
<i>l.</i> ♂ imm. sk.	Senegal.	R. B. Sharpe, Esq.
<i>m.</i> ♂ ad. sk.	Gambia, Sept.	R. B. Sharpe, Esq.

### 51. *Cinnyris fuliginosa.*

Soui-manga carmelite, *Aud. et Vieill. Ois. Dor.* ii. p. 42, pl. 20 (1802).

Soui-manga varié, *Aud. et Vieill. t. c.* p. 43, pl. 21.

*Certhia fuliginosa*, *Shaw, Gen. Zool.* viii. p. 222 (1811).

*Certhia maculata*, *Shaw, Gen. Zool.* viii. p. 223.

*Cinnyris fuliginosus*, *Cuv. Règne Anim.* p. 412 (1817); *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 497 (1819); *Bonn. et Vieill. Enc. Méth.* ii. p. 584 (1823); *Less. Man. d'Orn.* ii. p. 23 (1828); *id. Traité d'Orn.* i. p. 296 (1831); *id. Descr. Mamm. et Ois.* p. 271 (1847); *Bp. C. A.* i. p. 406; *id. C. R.* 1854, p. 265; *Reichenow, J. f. O.* 1877, p. 25; *Shelley, Monogr. Nect.* p. 275, pl. 86.

- Cinnyris maculatus*, *Cuv. Règne Anim.* i. p. 412; *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 514 (1819).  
*Carmelite Creeper*, *Lath. Gen. Hist. B.* iv. p. 256 (1822).  
*Varied Creeper*, *Lath. t. c.* p. 257.  
*Nectarinia fuliginosa*, *Drapiez, Dict. Class.* xv. p. 510 (1829); *Jard. Monogr. Sun-birds*, pp. 197, 256, pl. 14 (1842); *Strickl. Contr. Orn.* 1851, p. 133; *Hartl. Orn. W.-Afr.* p. 43 (1857); *id. J. f. O.* 1860, p. 136, 1861, p. 108; *Cass. Proc. Philad. Acad.* 1859, p. 35; *Bocage, Journ. Lisb.* 1868, p. 135; *Reichenow, J. f. O.* 1875, p. 30; *Bocage, Orn. d'Angola*, p. 163 (1877).  
*Cinnyris aureus*, *Less. Descr. Mamm. et Ois.* p. 271 (1847).  
*Carmelita fuliginosa*, *Reichenow. Handb. Scansor.* p. 296, pl. 58. figs. 3947-48 (1854); *Oust. Bull. Soc. Philom.* 7th series, i. p. 106 (1877); *id. N. Arch. Mus.* i. p. 93 (1878).  
*Nectarinia aurea*, *Hartl. Orn. W.-Afr.* p. 44 (1857).

*Adult male.* Chin and throat, carpal and upper tail-coverts black metallic in position A, purplish red in B, coppery green in position C; forehead metallic dark blue; præocular region black; large pectoral tufts of bright yellow colour; all the rest of the body warm velvety brown, including the under wing-coverts and the edge of the wing, darkest on the wings, tail, and underparts, palest on the hind neck and mantle; tail-feathers with a purple tinge. Culmen 0.95 inch, wing 2.7-2.8, tail 1.8, tarsus 0.65.

*Adult female.* General colour above brownish buff, varying much in depth; wings and tail dark brown, with pale edges; præocular region, chin, and throat dark brown, mottled with pale buff; abdomen washed with yellowish. Wing 2.5-2.6 inches.

*Hab.* Guinea.

*Obs.* The depth of the brown coloration of the mantle and hind neck varies considerably, from fawn-buff to a dark cinnamon-brown.

<i>a, b, c.</i> ♂; <i>d.</i> ♀ ad. sk.	River Volta ( <i>Ussher</i> ).	R. B. Sharpe, Esq.
<i>e.</i> ♂ juv. sk.	River Volta ( <i>Ussher</i> ).	R. B. Sharpe, Esq.
<i>f.</i> ♂ ad. sk.	Lagos ( <i>Ussher</i> ).	R. B. Sharpe, Esq.
<i>g.</i> ♂ ad. sk.	Abeokuta.	F. Nicholson, Esq. [P.].
<i>h, i.</i> ♂ [♀] ad. sk.	Cameroons, Jan. 18, 1871 ( <i>Crossley</i> ).	R. B. Sharpe, Esq.
<i>k.</i> ♂ ad. sk.	Kevimba, Gaboon, June 8, 1870 ( <i>Skertchly</i> ).	R. B. Sharpe, Esq.
<i>l, m.</i> ♂; <i>n.</i> ♀ ad. sk.	Gaboon.	R. B. Sharpe, Esq.
<i>o.</i> ♂ imm. sk. (moulting).	Gaboon.	R. B. Sharpe, Esq.
<i>p.</i> ♂ ad. sk.	Kabinda, August 1872.	Commander Sperling [P.].
<i>q, r.</i> ♂ ad. st.	Gaboon.	M. Verreaux [C.].
<i>s.</i> ♂ ad. st.	West Africa.	Purchased.
<i>t.</i> Ad. in spirits.	Gaboon.	H. T. Ansell, Esq. [P.].

## 52. *Cinnyris amethystina*.

- Souï-manga à front doré, *Aud. et Vieill. Ois. Dor.* ii. pp. 21, 22, pls. 5, 6 (1802).  
 Sucrier velours, *Levaill. Ois. d'Afr.* vi. p. 160, pl. 294 (1808);  
*Sundev. Krit. Framst., Levaill.* p. 56 (1857).



- Certhia amethystina*, *Shaw, Gen. Zool.* viii. p. 195 (1811).  
*Certhia aurifrontalis*, *Bechst. Kurze Uebers.* p. 192 (1812).  
*Cinnyris amethystinus*, *Cuv. Règne Anim.* i. p. 412 (1817); *Less. Traité d'Orn.* i. p. 294 (1831); *Swains. B. W. Afr.* ii. p. 134 (1837); *Bp. C. A.* i. p. 406 (1850); *Cab. Mus. Hein.* i. p. 101 (1850); *Sharpe, ed. Layard's B. S. Afr.* p. 315 (1877); *Shelley, Monogr. Nect.* p. 269, pl. 84.  
*Cinnyris auratifrons*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 502 (1819); *Bonn. et Vieill. Enc. Méth.* ii. p. 590 (1823).  
*Meropine Creeper*, *Lath. Gen. Hist. B.* iv. p. 223 (1822).  
*Amethystine-throated Creeper*, *Lath. t. c.* p. 254.  
*Nectarinia aurifrons*, *Licht. Verz. Doubl.* p. 15 (1823); *Less. Man. d'Orn.* ii. p. 42 (1828).  
*Nectarinia auratifrons*, *Drapiez, Dict. Class.* xv. p. 511 (1829).  
*Nectarinia amethystina*, *Jard. Monogr. Sun-birds*, pp. 195, 256, pl. 13 (1842); *Hartl. Orn. W.-Afr.* p. 44 (1857); *id. J. f. O.* 1861, p. 108; *Grill, Zool. Anteckn.* pp. 10, 39 (1858); *Layard, B. S. Afr.* p. 79 (1867); *Bocage, Journ. Lisb.* 1869, p. 340, 1877, p. 153, 1878, p. 2; *id. J. f. O.* 1876, p. 419; *Finsch & Hartl. Vög. Ost-Afr.* p. 220 (1870).  
*Chalcomitra amethystina*, *Reichenb. Handb. Scansor.* p. 277, pl. 567. figs. 3861-63 (1854).

*Smaller Race (C. kirki).*

- Nectarinia amethystina*, *Kirk, Ibis*, 1864, p. 320.  
*Cinnyris kirkii*, *Shelley, Monogr. Nect.* p. 273, pl. 85; *Sharpe, ed. Layard's B. S. Afr.* p. 317 (1876); *Shelley, P. Z. S.* 1879, p. 571.  
*Cinnyris (Chalcomitra) kalkreuthi*, *Cab. J. f. O.* 1878, pp. 205, 227.  
*Nectarinia kalkreuthi*, *Fisch. & Reichen. t. c.* p. 260.

*Adult male.* The whole bird, as seen in position A, uniform brownish velvety black; back and underparts with a soft purple hue; centre of crown, throat, part of the bend of wing, and terminal parts of most of the upper tail-coverts metallic, the crown being dark green, the other parts dark purple in position B, coppery red in position C. Culmen 1.15 inch, wing 2.8-2.9, tail 1.9, tarsus 0.66.

*Adult female.* Upper parts earthy brown with an olive tinge; wings and tail dark brown; secondaries and wing-coverts with pale edges; all the underparts mottled with yellowish and dark brown, the dark brown being predominant on the throat, the dingy yellow or dull whitish on the abdomen and under tail-coverts; edge of wing whitish, inner edges of quills pale. Wing 2.6 inches, tail 1.8.

*Immature males* have the throat and anterior part of the crown metallic like the male; rest of fore neck sooty black; all the other parts like the female. In the next stage towards the adult plumage the feathers of the underparts are blackish at base and broadly edged with whitish.

*Hab.* South Africa, from Natal to Angola and Zanzibar.

*Obs.* From the Zambesi to the Zanzibar district the specimens are smaller in size (*C. kirki*).

♂ ad. Mozambique (upper tail-coverts plain). Culmen 0·95 inch, wing 2·6, tail 1·7, tarsus 0·62 (Shelley gives tail 1·85, tarsus 0·65).

♀ ad. Mozambique. Culmen 0·95 inch, wing 2·45, tail 1·65, tarsus 0·60.

Captain Shelley separates the specimens from Mozambique as *C. kirki*, the only difference given being the absence of the metallic purple colour on the upper tail-coverts; the female is like that of *C. amethystina*, but smaller. In the British Museum is an adult male, collected by Dr. Bradshaw on the Zambesi, which has the upper tail-coverts just as much metallic purple as the southern birds. Culmen 1·9 inch, wing 2·67, tail 1·7, tarsus 0·65.

a. ♂ imm. st.	S. Africa.	Sir A. Smith [C.].
b. ♂ juv. st.	Cape.	F. Campbell, Esq. [P.].
c. ♂ imm. sk.	Cape.	F. D. Godman and O. Salvin, Esqrs. [P.].
d. ♂ imm. st.	Natal.	Purchased.
e, f. ♂; g. ♀; h. ♂ imm. sk.	Knysna ( <i>Andersson</i> ).	R. B. Sharpe, Esq.
i. ♂ imm. sk. (moulting).	Port Elizabeth.	R. B. Sharpe, Esq.
k. ♂ juv. sk.	British Caffraria ( <i>Bar-ratt</i> ).	H. Seebohm, Esq. [P.].
l. ♂ juv. sk.	Graham's Town ( <i>At-more</i> ).	R. B. Sharpe, Esq.
m, n. ♂ ad. sk.	Natal.	R. B. Sharpe, Esq.
o. ♂ juv. sk. (moulting).	Natal.	India Museum.
p. ♂ juv. sk.	Natal, March 1875 ( <i>F. Oates</i> ).	W. E. & C. G. Oates, Esqrs. [P.].
q. ♂ ad. sk.	Natal.	T. Ayres, Esq. [C.].
r. ♂ ad. sk.	Rustenburg, E. Transvaal.	F. A. Barratt, Esq. [C.].

#### Mozambique Race (*C. kirki*).

a. ♀ ad. sk.	Mombasa ( <i>Wakefield</i> ).	R. B. Sharpe, Esq.
b, c. ♂; d. ♀ ad. sk.	Mombasa.	Rev. H. Fowell Buxton [P.].
e. ♂ ad. sk.	Mozambique, April.	Dr. Gueinzius [C.].
f. ♂ ad. sk.	Zambesi.	Dr. Bradshaw [C.]. (Type of species.)
g. ♂ imm. sk. (moulting).	Shupanga, April 1862.	Sir J. Kirk [C.].

#### 53. *Cinnyris angolensis*.

? *Cinnyris rubescens*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 506 (1819); *Bonn. et Vieill. Enc. Méth.* p. 593 (1823); *Less. Man. d'Orn.* ii. p. 61 (1828); *Bp. C. A.* i. p. 406, no. 10 (1850).

? *Nectarinia rubescens*, *Drapiez, Dict. Class.* xv. p. 512 (1829); *Jard. Monogr. Sun-birds*, p. 274 (1842); *Hartl. Orn. W.-Afr.* p. 49 (1857); *Gray, Hand-l. B.* i. p. 107, no. 1297 (1869); *Bocage, Orn. d'Angola*, p. 178 (1877).

- Cinnyris angolensis*, *Less. Traité d'Orn.* p. 295, no. 15 (1831); *Pucheran, Rev. et Mag. Zool.* 1853, p. 486; *Hartl. J. f. O.* 1855, p. 423; *Shelley, Monogr. Nect.* p. 279, pl. 87.
- Nectarinia strangeri*, *Jard. Ann. Nat. Hist.* x. p. 187, pl. 13 (1842); *id. Monogr. Sun-birds*, pp. 198, 257 (1842); *Jard. & Selby, Ill. Orn.* n. s. pl. 48 (1842); *Allen & Thomson, Exped. Niger*, ii. *App.* p. 501 (1848); *Verr. Rev. et Mag. Zool.* 1851, p. 313; *Hartl. J. f. O.* 1854, p. 10.
- Cinnyris stangeri*, *Bp. C. A.* i. p. 406, no. 8 (1850); *id. Comptes Rendus*, 1854, p. 265.
- Chalcomitra stangeri*, *Reichb. Handb. Scansoriæ*, p. 280, no. 647, pl. 568, fig. 3875 (1854).
- Nectarinia angolensis*, *Hartl. Orn. W.-Afr.* pp. 45, 270 (1857); *Cass. Pr. Philad. Acad.* 1859, p. 35; *Hartl. J. f. O.* 1860, p. 136; *id. J. f. O.* 1861, p. 108; *Reichenow, J. f. O.* 1875, p. 30; *Bouvier, Cat. Ois. Marche*, p. 13 (1875); *Bocage, Orn. d'Angola*, p. 162 (1877).
- Chalcomitra angolensis*, *Oustalet, N. Arch. Mus.* i. p. 84 (1878).

*Adult male.* Forehead and whole fore neck metallic black in position A, in B brilliant green, changing into dark greenish blue in C; the green of the forehead bordered posteriorly by a brilliant purple crescent, whilst the metallic fore neck is separated from the chest by a very narrow crescent of purple feathers with scarlet-red tips; all the rest of the body dark brown, with a faint velvety bronzy gloss; præocular region and chin black.

*Immature male.* Like the adult female, but with the metallic colour on the fore neck and forehead developed.

*Female.* Above uniform brown; tail and wings with pale edges; underparts pale dingy yellowish (not buff), mottled with brownish on the breast and chest, owing to the brown centres of the feathers.

*Young male.* Throat sooty blackish; abdomen and under tail-coverts dull yellow; breast strongly mottled with dark brown, as each feather has a few dark brown spots or bars.

♂. Culmen 0·80 inch, wing 2·5-2·65, tail 1·6, tarsus 0·60.

♀. „ 0·75 „ „ 2·3-2·4, „ 1·5, „ 0·60.

*Hab.* West Africa, from Cameroons and Fernando Po to Angola.

a. ♂ juv. sk.	W. Africa.	R. B. Sharpe, Esq.
b. ♂ ad. sk.	Cameroons, January 26, 1871	R. B. Sharpe, Esq.
	( <i>Crossley</i> ).	
c. ♂ ad. st.	Gaboon.	M. Verreaux.
d, e, f. ♂; g, h.	Gaboon.	R. B. Sharpe, Esq.
♀ ad. sk.		
i, k. ♂ imm. sk.	Gaboon.	R. B. Sharpe, Esq.
l. [♀] juv. sk.	Ogowé River ( <i>Marche</i> ).	R. B. Sharpe, Esq.
m. ♂ ad. sk.	Bembe, Angola.	J. J. Monteiro, Esq.
		[C.].

#### 54. *Cinnyris adelberti*.

*Cinnyris adelberti*, *Gerv. Mag. Zool.* iii. pl. 19 (1834); *Shelley, Monogr. Nect.* p. 281, pl. 88.

- Nectarinia cboensis*, *Jard. Monogr. Sun-birds*, p. 244 (1842).  
*Nectarinia adelberti*, *Jard. t. c.* p. 257, pl. 30; *id. & Selby, Ill. Orn.* 1842, pl. 49; *Bp. C. A. i.* p. 404; *Hartl. Orn. W.-Afr.* p. 44 (1857); *id. J. f. O.* 1861, p. 108; *Reichenow, J. f. O.* 1875, p. 30.  
*Cinnyris cboensis*, *Allen & Thoms. Exped. Niger*, ii. *App.* p. 502 (1848).  
*Chalcomitra adelberti*, *Reichenb. Handb. Scansor.* p. 279, pl. 568. figs. 3876-77 (1854).  
*Nectarinia angolensis*, *Sharpe, Ibis*, 1869, p. 383, 1870, p. 473 (*nec Less.*).

*Adult male.* Anterior half of crown and a moustachial streak brilliant metallic green, changing to purple in position C; ocular region, sides of head, nape, and hind neck velvety brownish black, passing into dark brown on the rest of the back, wings, and tail; lesser, median, and carpal wing-coverts rich fawn-colour; rest of wing-coverts edged with the same; upper part of throat dark velvety brown; rest of fore neck rich cream-colour (not buff), bordered by a narrow crescent of velvety brown feathers; rest of the underparts, including the under wing-coverts, rich cinnamon-colour; inner web of remiges without any pale edgings.

*Female.* Like that of *C. angolensis*.

♂. Culmen 0.75 inch, wing 2.4-2.5 (not 2.3), tail 1.5, tarsus 0.65.

♀. Culmen 0.75 inch, wing 2.25-2.30, tail 1.4, tarsus 0.65.

*Hab.* West Africa, from Senegal to the Niger.

- |                                       |  |  |
|---------------------------------------|--|--|
| a. ♂ ad. sk.                          | Ebo, W. Africa.                                | Capt. W. R. Thomson<br>[P.]<br>Gould, Esq. |
| b, c. ♂; d. ♀ ad. sk.                 | Ashantee.                                      |  |
| e. ♂ ad.; f. ♀ ad.; g, h, i. Imm. sk. | Fantee ( <i>Aubinn</i> ).                      | R. B. Sharpe, Esq.                         |
| k, l. ♂ ♀ ad. sk.                     | Abrobonko, January 14, 1871 ( <i>Ussher</i> ). | R. B. Sharpe, Esq.                         |

## 7. ARACHNOTHERA.

Type.

- |  |   |
|--|---|
| <i>Arachnothera</i> , <i>Temm. Pl. Col.</i> pl. 388, note (1826).....                | <i>A. chrysogenys</i> .                                   |
| <i>Arachnoraphis</i> , <i>Reichb. Handb. Scansorie</i> , p. 313 (1854).....          | <i>A. flavigastra</i> .                                   |
| <i>Arachnocestra</i> , <i>Reichb. tom. cit.</i> p. 314.....                          | <i>A. crassirostris</i> .                                 |
| <i>Melilestes</i> , <i>Salvad. (pt.) Ann. Mus. Civ. Gen.</i> vii. p. 950 (1875)..... | { <i>Ptil. megalorhynchus</i> .<br><i>A. iliolophus</i> . |

Bill much longer than rest of the head; culmen curved, either rounded (*Arachnorhaphis*) or keeled (*Arachnothera*); margins of maxilla sometimes serrated. Nostrils basal, longitudinal, operculated. Nasal bristles completely wanting, but a few feeble rictal bristles are found in some species. First primary short; tip of wing formed by third, fourth, and fifth primaries. Tail very short, about half the length of the wing, square. Tarsus anteriorly



- Arachnoraphis armata*, *Reichenb. Handb. Scansor.* p. 313, pl. 594. fig. 4029 (1854).  
*Arachnoraphis robusta*, *Reichenb. t. c.* p. 314, pl. 594. fig. 4031; *Shelley, Monogr. Nect.* p. 367, pl. 118.  
*Arachnocestra uropygialis*, *Reichenb. t. c.* p. 315, pl. 592. fig. 4017.  
*Nectarinia robusta*, *Schleg. Handl. Dierk.* i. p. 237 (1857).

The bill of this species is more than two inches long, and has the culmen rounded, not compressed into a ridge. Upper parts dark olive-green with a brownish tinge; all the tail-feathers blackish brown, the outer pairs with whitish tips; quills and greater wing-coverts dark brown, the outer web narrowly edged with olive, the inner edged with whitish; all the underparts sulphur-yellow; the feathers of the throat and breast tinged with olive, and with very obsolete central streaks of brownish olive; on each side of the breast a few chrome-yellow feathers of long and diffused structure; edge of wing and under wing-coverts brown and whitish; "bill and legs brownish black; iris dark brown" (*Shelley*). Total length 6 inches.

*Female*. Without the pectoral tufts, and smaller in size.

♂ (Sarawak). Culmen 2·30 in., wing 3·45, tail 2·2, tarsus 0·70.

♀ (Sarawak). „ 2·25 in., „ 3·0, „ 1·90, „ 0·70.

*Hab.* Malacca, Java, and Borneo.

- |              |  |  |
|--------------|--|--|
| a. ♂ ad. sk. | Indian archipelago.                                      | Purchased.                               |
|              |  | (Type of <i>A. uropygialis</i> , Gray.)  |
| b. ♂ ad. sk. | Borneo, Feb. 8, 1843<br>( <i>J. Brooke</i> ).            | J. Gould, Esq.                           |
| c. ♂ ad. sk. | Sarawak.   | H. Everett, Esq. [C.].                   |
| d. ♀ ad. sk. | Sarawak.   | A. R. Wallace, Esq. [C.].                |
| e. ♀ ad. sk. | Simunjon, Borneo, October<br>1870 ( <i>A. Everett</i> ). | F. D. Godman and O. Salvin, Esqrs. [P.]. |

## 2. *Arachnothera crassirostris*.

- Arachnocestra crassirostris*, *Reichenb. Handb. Scansorieæ*, p. 314, no. 747, pl. 592. fig. 4016 (1854).  
*Arachnothera temminckii*, *Horsf. & Moore, Cat. B. E. I. Co. Mus.* ii. p. 728, no. 1060 (1856); *Gray, Hand-l. B.* i. p. 111, no. 1367 (1869); *Tweeddale, Ibis*, 1877, p. 301.  
*Arachnothera crassirostris*, *Gray, Hand-l. B.* i. p. 111, no. 1368 (1869); *Salvad. Ann. Mus. Civ. Genova*, v. p. 187 (1874).  
*Arachnoraphis crassirostris*, *Sharpe, Ibis*, 1879, p. 261; *Shelley, Monogr. Nect.* p. 371, pl. 119.  
*Arachnothera crassirostris*, *Salvad. Ann. Mus. Civ. Genova*, xiv. p. 215 (1879).

Like *A. robusta*, but much smaller in size, and without the obscure central streaks to the throat and breast; the long lax and fluffy feathers on the sides of the flanks and on the centre of the lower back bright lemon-yellow, and much more numerous than in *A. robusta*; "legs and feet dark plumbeous, soles orange-yellow; maxilla black; mandible dark brown, bluish white at base; iris dark brown" (*Hume*).

The *female* is only slightly smaller; breast without the chrome

patches; the fluffy feathers of the lower back dull yellow. Total length about 5 inches (excluding bill).

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Ad. ♂ from Sumatra ( <i>Wallace</i> ) . . . . .	1.15	2.85	1.65	0.63
Ad. ♂ (type of <i>A. temminckii</i> , Moore) .	1.40	3.05	1.90	0.70
Ad. ♀ . . . . .	1.45	3.0	2.0	0.72

*Hab.* Malacca, Sumatra, and Borneo.

- a, b. ♂ ad. sk. Indian archipelago (*Middle-ton*). India Museum. (Types of *A. temminckii*, Horsf.)  
 c. ♂ ad. sk. Sumatra. A. R. Wallace, Esq. [C.]

### 3. *Arachnothera longirostris*.

Long-billed Creeper, *Lath. Gen. Syn. Suppl.* i. p. 133 (1787); *id. Gen. Hist.* iv. p. 251 (1822).

*Certhia longirostra*, *Lath. Ind. Orn.* i. p. 299 (1790); *Shaw, Gen. Zool.* viii. p. 270 (1811).

Souï-manga à long bec, *Audeb. et Vieill. Ois. Dor.* ii. p. 65 (1802); *Less. Man. d'Orn.* ii. pp. 32, 56 (1828).

*Cinnyris cinereicollis*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 502 (1819); *Bonn. et Vieill. Enc. Méth.* ii. p. 591 (1823).

*Cinnyris longirostris*, *Vieill. N. Dict. d'Hist. Nat.* xxxi. p. 504 (1819); *Horsf. Trans. Linn. Soc.* xiii. p. 167 (1820); *Bonn. et Vieill. Enc. Méth.* ii. p. 591 (1823).

*Cinnyris longirostratus*, *Less. Man. d'Orn.* ii. p. 32 (1828).

*Nectarinia longirostra*, *Temm. Pl. Col.* pl. 84. fig. 1 (1823).

*Arachnothera longirostra*, *Temm. Pl. Col.* pl. 388, text (1826); *Less. Man. d'Orn.* ii. p. 32 (1828); *id. Traité d'Orn.* i. p. 292 (1831); *Müll. & Schleg. Natuurl. Gesch. Land- en Volkenk.* pp. 69, 71 (1846); *Low, Sarawak*, p. 410 (1748); *Blyth, Cat. B. Mus. As. Soc.* pp. 222, 347 (1849); *Bp. C. A. i.* p. 409; *Salvad. Ann. Mus. Civ. Gen.* v. p. 186 (1874); *Tweeddale, Ibis*, 1877, p. 300; *Briiggem. Abhandl. nat. Ver. Bremen*, v. p. 458 (1877); *Hume & Davison, Str. F.* vi. pp. 174, 507 (1878); *Hume, Str. F.* vii. p. 35 (1878); *Salvad. Ann. Mus. Civ. Genova*, xiv. p. 214 (1879); *Shelley, Monogr. Nect.* p. 357, pl. 114; *Hume & Davis, Str. F.* 1878, p. 330; *Hume, Str. F.* 1879, p. 330; *Oates, B. Br. Burm.* i. p. 330.

*Arachnothera inornata*, *Blyth (nec Temm.), J. A. S. B.* xii. p. 982 (1843).

*Arachnothera longirostris*, *Blyth, J. A. S. B.* xii. p. 982, xv. p. 43 (1846); *Schl. Handl. Dierk.* p. 237 (1857); *Gray, Gen. B.* i. p. 99; *Pelzeln, Novar. Reise, Vög.* pp. 52, 161 (1865).

*Arachnothera affinis*, *Blyth (nec Horsf.), J. A. S. B.* xv. p. 43 (1846); *Horsf. & Moore, Cat. B. E.I. Co. Mus.* ii. p. 730 (1846); *Jerd. B. Ind.* i. p. 361 (1862); *Blyth, Ibis*, 1866, p. 364; *Hume, Str. F.* 1874, p. 473, 1875, p. 85; *Blyth & Walden, Cat. Mann. & Birds Burma*, p. 140 (1875); *Blanford, Ibis*, 1870, p. 467.

*Arachnothera pusilla*, *Blyth, Cat. B. Mus. As. Soc.* p. 222 (1849).

*Arachnothera longirostris*, *Reichenb. Handb. Scansor.* p. 315, pl. 592. figs. 4018-19 (1854).

*Arachnothera* — ? *Walden, Trans. Zool. Soc.* viii. p. 70 (1874)

*Adult male.* General colour above and sides of the head and neck olive, with a brownish tinge; feathers of the crown with dark

centres; tail blackish brown with whitish tips; quills brown, the inner web edged with whitish; chin, throat, edge of wing, and under wing-coverts white; rest of underparts sulphur-yellow; on each side of the breast a few chrome-yellow feathers; "maxilla black; mandible and legs leaden grey; iris dark brown." Total length 4 inches (excluding bill).

The *female* has no chrome-coloured patches on the breast, and is smaller in size.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Ad. ♂. Labuan.....	1·7	2·75	1·7	0·7
Ad. ♂. W. Java .....	1·85	2·65	1·75	0·66
Ad. ♀. Pegu.....	1·40	2·30	1·50	0·60
Ad. ♀. Sumatra .....	1·32	2·45	1·60	0·60

The bill in this species is very long and slender, and in most species forms a ridge at the culmen; in others, however, a ridge is scarcely developed.

*Hab.* Found, according to Shelley, on the Malabar coast and the Neilgherries, Bengal, and round the Bay of Bengal, in the Malayan peninsula, in the Andaman Islands, Sumatra, Java, Borneo, and Celebes.

a. ♂ ad. sk.	Eridge, Travancore, April 5, 1879.	F. W. Bourdillon, Esq. [C.].
b. ♂ juv. sk.	Mynall, Travancore, Feb. 9, 1880, 2600 feet.	F. W. Bourdillon, Esq. [C.].
c. ♀ ad. sk.	Arracan.	India Museum.
d. Ad. sk.	Bassein, Pegu.	W. T. Blanford, Esq. [C.].
e. Ad. sk.	Zeinganein, Pegu, April 1876	E. W. Oates, Esq. [C.].
f. ♂ ad. sk.	Tenasserim ( <i>Helper</i> ).	India Museum.
g, h. ♂ ♀ ad. sk.	Malacca ( <i>Griffith</i> ).	India Museum.
i. ♂ ad. sk.	Malacca.	A. R. Wallace, Esq. [C.].
k, l, m. ♂ ♀ ad. sk.	Singapore.	Gould Collection.
n. ♀ ad. sk.	Sumatra.	A. R. Wallace, Esq. [C.].
o. ♀ ad. sk.	West Sumatra.	Dr. Faber [C.].
p. ♂ ad. sk.	W. Java ( <i>Burton</i> ).	F. Nicholson, Esq. [P.].
q. ♂ ad. sk.	W. Java.	A. R. Wallace, Esq. [C.].
r. ♂ ad. sk.	Java.	Gould Collection.
s. ♂ ad. sk.	Java.	Purchased.
t. [♀] ad. st.	Borneo.	Rajah Brooke [P.].
u. [♂] ad. st.	Borneo.	Purchased.
v. ♂ ad. sk.	Borneo.	Purchased.
w, x. ♂ ♀ ad. sk.	N.W. Borneo.	H. Low, Esq. [C.].
y. ♂ ad. sk.	Labuan ( <i>Low</i> ).	R. B. Sharpe, Esq. [P.].
z. ♀ ad. sk.	Sarawak.	H. Everett, Esq. [P.].
a'. ♂ ad. sk.	Simunjon, Borneo ( <i>A. Everett</i> ).	F. D. Godman and O. Sal- vin, Esqrs. [P.].

#### Subsp. *a. Arachnothera flammifera*.

*Arachnothera flammifera*, *Tweeddale*, *P. Z. S.* 1878, p. 343; *Shelley*, *Monogr. Nect.* p. 361, pl. 115.

*A. flammifera*, which is most probably nothing but a brighter-



coloured and smaller race of *A. longirostris*, rests on a single specimen only, an old male, collected by Mr. Everett in the island of Leyte, in September 1877.

It differs from *A. longirostris* in having the throat and sides of the neck more tinged with pale grey, whilst the centre of the upper breast is white instead of yellow. The pectoral tufts and the rest of the underparts are richly coloured, orange and yellow, as becomes an old male in its best plumage. Total length 4 inches (excluding bill), culmen 1.15, wing 2.4, tail 1.75, tarsus 0.6 (*Shelley*).

#### 4. *Arachnothera dilutior*.

*Arachnothera dilutior*, *Sharpe*, *Nature*, 3rd August 1876, p. 296; *id.* *Trans. Linn. Soc.* new ser. *Zool.* i. p. 341; *Tweedd. P. Z. S.* 1878, p. 621; *Shelley*, *Monogr. Nect.* p. 363, pl. 116.

This species is closely allied to *A. longirostris*, "from which it differs in having the breast white, only slightly shaded with pale olive-yellow on the sides of the body, and in the crown being brown with no olive shade; throat faintly shaded with ashy brown: pectoral tufts bright chrome-yellow. Culmen 1.5 inch, wing 2.7, tail 1.9, tarsus 0.75." (*Shelley*.)

*Hab.* The only specimen known was collected by Dr. Steere in the island of Palawan (Philippines).

#### 5. *Arachnothera magna*.

*Cinnyris magna*, *Hodgs. Ind. Rev.* 1837, p. 272.

*Arachnothera inornata*, *Horsf. (nec Temm.)*, *P. Z. S.* 1839, p. 167.

*Arachnothera magna*, *Blyth, J. A. S. B.* 1843, p. 981, 1846, p. 43; *Gray, Gen. B.* i. p. 99 (1847); *Blyth, Cat. B. Mus. As. Soc.* p. 221 (1849); *Bp. C. A.* i. p. 410; *Cab. Mus. Hein.* i. p. 106; *Reichenb. Handb. Scansor.* p. 316, pl. 593, fig. 4023 (1854); *Horsf. & Moore, Cat. B. E.I. Co. Mus.* ii. p. 727 (1856); *Jerdon, B. Ind.* i. p. 360 (1862); *Godwin-Austen, J. A. S. B.* xxxix. p. 98 (1870); *Hume, Str. F.* 1874, p. 473, 1875, p. 85; *Blyth & Walden, Cat. Mamm. & Birds Burma*, p. 140 (1875); *Walden, Ibis*, 1876, p. 347; *Shelley, Monogr. Nect.* p. 347, pl. 112, fig. 1; *Gammie, Str. F.* v. p. 355 (1877); *Hume & Davis, Str. F.* 1878, pp. 173, 507; *Hume, Str. F.* 1879, p. 89; *Oates, B. Brit. Burm.* i. p. 327.

*Arachnothera chrysopus*, *Hodgs. in Gray's Zool. Misc.* p. 82 (1844); *id. J. A. S. B.* xxiv. p. 575 (1855).

#### *Southern Race (A. aurata).*

*Arachnothera aurata*, *Blyth, J. A. S. B.* xxiv. p. 478 (1855); *id. Ibis*, 1870, p. 164; *Elwes, P. Z. S.* 1873, p. 661; *Hume, Str. F.* 1875, pp. 15, 85; *Blyth & Walden, Cat. Mamm. & Birds Burma*, p. 410 (1875); *Shelley, Monogr. Nect.* p. 351, pl. 112, fig. 2; *Hume & Davis, Str. F.* 1878, p. 174; *Hume, Str. F.* 1879, p. 89; *Oates, B. Brit. Burm.* i. p. 323.

*Arachnothera magna*, *Walden (nec Hodgson)*, *P. Z. S.* 1866, p. 540; *Beavan, Ibis*, 1869, p. 418.

General colour above greenish yellow, each feather with a blackish-brown central streak; tail greenish yellow, with an irregular

blackish subterminal band; in most specimens the outer pairs of tail-feathers have an indistinct light spot on the inner web near the tip; quills brown, the outer web of the same colour as the back, the inner web edged with whitish; all the underparts yellowish white, each feather with a strongly pronounced central streak of dark brown; under tail-coverts and thighs yellowish brown with light tips; edge of wing yellow; axillaries uniform yellowish white; bill horny black; legs orange; iris dark brown.

The female closely resembles the male in plumage, but is a little smaller.

Measurements of type specimens:—Total length about 6 inches (excluding bill), culmen 1·5–1·70, wing 1·5–1·65, tail 1·7–2·0, tarsus 0·78–0·82.

*Hab.* From Nepal, through Assam, to Tenasserim.

*Southern Race* (*A. aurata*).

Still more to the southward (in Tenasserim, Burmah and Pegu) the specimens of this species become slightly lighter coloured, as the dark shaft-streaks on the lower back and upper tail-coverts have almost disappeared; on the underparts the streaks are also narrower, and the under tail-coverts are more yellow. As a rule these southern specimens are not quite so large as many of the northern ones.

Ad. ♂ from Pegu (*Oates*). Culmen 1·55 inch, wing 1·3, tail 1·7, tarsus 0·75.

Ad. ♀, Baunee, Pegu (*Oates*). Culmen 1·4 inch, wing 3, tail 1·5, tarsus 0·75.

<i>a.</i> Ad. st.	Nepal.	B. H. Hodgson, Esq. [P.].
<i>b, c, d, e.</i> Ad. sk.	Nepal ( <i>Hodgson</i> ).	India Museum.
<i>f.</i> Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
		(Type of species.)
<i>g, h.</i> Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
<i>i, k, l.</i> Ad. sk.	Sikhim.	H. Seebohm, Esq. [P.].
<i>m.</i> Ad. sk.	Darjiling.	India Museum.
<i>n.</i> Ad. sk.	Darjiling.	Gould Collection.
<i>o.</i> Ad. sk.	Assam ( <i>McClelland</i> ).	India Museum.
<i>p.</i> Ad. sk.	Upper Assam.	R. B. Sharpe, Esq. [P.].
<i>q, r.</i> Ad. sk.	Khasia hills ( <i>Griffith</i> ).	India Museum.
<i>s.</i> Ad. sk.	Tonghoo.	E. W. Oates, Esq. [C.].
<i>t.</i> Ad. sk.	Tenasserim ( <i>Helper</i> ).	India Museum.

*Southern Race* (*A. aurata*).

<i>a.</i> ♀ ad. sk.	Baunee, Pegu, April 18,	E. W. Oates, Esq. [C.].
	1880.	
<i>b.</i> ♂ ad. sk.	Eastern slopes of Pegu	E. W. Oates, Esq. [C.].
	hills, April 27, 1873.	

6. *Arachnothera affinis*.

*A. affinis*.

*Cinnyris affinis*, *Horsf. Trans. Linn. Soc.* xiii. p. 166 (1820); *Vig. Mem. Raffles*, p. 672 (1830); *Eyton, P. Z. S.* 1839, p. 101.

- Nectarinia inornata, *Temm. Pl. Col.* 84. fig. 2 (1823).  
 Cinnyris inornata, *Less. Traité d'Orn.* p. 292 (1831); *Blyth, J. A. S. B.* xv. p. 43 (1846); *Müll. & Schleg. Verh. Naturw. Gesch., Aves*, p. 68 (1846); *Blyth, Cat. B. Mus. As. Soc.* pp. 222, 327 (1849); *Bp. C. A. i.* p. 409 (1850); *Reichenb. Handb. Scansor.* p. 316, pl. 593. figs. 4021-22 (1854); *Horsf. & Moore, Cat. B. E.I. Co. Mus.* ii. p. 729 (1856).  
 ? *Arachnothera literata*, *Licht. Nomencl. Av.* p. 55 (1854).  
*Arachnothera affinis*, *Shelley, Monogr. Nect.* p. 355, pl. 113. fig. 2.

*A. modesta.*

- Anthreptes modesta*, *Eyton, P. Z. S.* 1839, p. 105.  
*Arachnothera modesta*, *Blyth, J. A. S. B.* xii. p. 981 (1843), xv. p. 43 (1846); *id. Cat. Mus. As. Soc.* p. 222 (1849); *Bp. C. A. i.* p. 410 (1850); *Horsf. & Moore, Cat. B. E.I. Co. Mus.* ii. p. 730 (1856); *Moore, P. Z. S.* 1859, p. 460; *Stoliczka, J. A. S. B.* xxxix. p. 302 (1870); *Salvad. Ann. Mus. Civ. Gen.* v. p. 183 (1874); *Hume, Str. F.* 1874, p. 473, 1875, p. 85; *Blyth & Walden, Mamm. & Birds of Burma*, p. 140 (1875); *Hume & Davison, Str. F.* vi. pp. 176, 507; *Salvad. Ann. Mus. Civ. Genova*, xiv. p. 214 (1879); *Shelley, Monogr. Nect.* p. 353, pl. 113. fig. 1; *Oates, B. Brit. Burm.* i. p. 329.  
*Arachnothera latirostris*, *Blyth, J. A. S. B.* xii. p. 982 (1843), xiv. p. 557 (1845); *Gray, Gen. B.* i. p. 99 (1847).  
*Arachnothera affinis*, *Pelzeln, Novara Reise, Vög.* i. p. 53 (1865).

*A. Larger Race (A. affinis).*

All the upper parts uniform dark yellowish olive; the feathers of the crown and forehead with dark brown centres; inner web of quills dark brown, edged with buff; tail with a dark brown sub-terminal band, inner webs dark brown with white subterminal spots; all the underparts dull whitish grey with a slight olive tinge; the feathers of the throat and breast with dark central streaks, which become more and more obsolete on the abdomen and on the flanks; edge of wing yellow; cheeks and ear-coverts olive-greyish yellow; bill blackish brown; legs and iris brown. Total length 6-7 inches, culmen 1.3-1.5, wing 3.5, tail 2.3-2.4, tarsus 0.80.

*Hab.* Java and Sumatra.

*B. Northern, or smaller Race (A. modesta, Eyton).*

Specimens from Borneo, the Malayan peninsula, and the opposite coast of Sumatra are slightly smaller, and have the shaft-stripes on the throat and breast less distinctly marked, the general colour above more greenish, and the under mandible paler brown than in the southern race. The birds vary in size, and gradually lead on to the largest specimens of the larger or northern race, as is shown in the following table. Total length about 5.6 inches.

	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.
Type specimen (Malacca) . . . .	1.45	3.1	1.85	0.73
♂. Malacca ( <i>Wallace</i> ) . . . . .	1.50	3.4	2.10	0.77
[♀]. Malacca ( <i>Cantor</i> ) . . . . .	1.35	2.85	2.70	0.70
Sumatra ( <i>Wallace</i> ) . . . . .	1.35	2.90	2.70	0.75
Sarawak ( <i>Everett</i> ) . . . . .	1.45	3.30	2.0	0.70

*Southern Race* (*A. affinis*).

<i>a.</i> Ad. st.	Indian archipelago.	Purchased.
<i>b, c.</i> ♂ ♀ ad. st.	Java.	Purchased.
<i>d, e.</i> Ad. sk.	Java ( <i>Horsfield</i> ).	East India Company. (Types of species.)
<i>f.</i> ♂ ad. sk.	Java ( <i>Diard</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.]
<i>g, h.</i> ♂ ♀ ad. sk.	East Java.	A. R. Wallace, Esq. [C.]

*Northern Race* (*A. modesta*).

<i>a.</i> Ad. sk.	Malacca.	T. C. Eyton, Esq. (Type of <i>A. modesta</i> , Eyton.)
<i>b.</i> Ad. sk.	Malacca ( <i>Griffith</i> ).	India Museum.
<i>c, d, e.</i> Ad. sk.	Malacca ( <i>Cantor</i> ).	India Museum.
<i>f.</i> Ad. sk.	Malacca.	India Museum.
<i>g.</i> ♂ ad. sk.	Malacca.	A. R. Wallace, Esq. [C.]
<i>h.</i> ♂ ad. sk.	Malacca ( <i>Wallace</i> ).	Gould Collection.
<i>i.</i> Ad. sk.	Sumatra.	A. R. Wallace, Esq. [C.]
<i>k.</i> Ad. sk.	Sarawak.	H. Everett, Esq. [C.]
<i>l.</i> Ad. sk.	[Java.]	Gould Collection.

7. *Arachnothera chrysogenys*.

*Cinnyris longirostra*, *Horsf. (nec Lath.)*, *Tr. Linn. Soc.* xiii. p. 169 (1820); *Vig. Mem. Raffles*, p. 672 (1831).

*Certhia longirostra*, *Raffles*, *Tr. Linn. Soc.* xiii. p. 299 (1822).

*Arachnothera chrysogenys*, *Tenm. Pl. Col.* 388. fig. 1 (1826); *Drapiez, Dict. Class.* xv. p. 512 (1829); *Blyth, J. A. S. B.* xii. p. 981 (1843); *S. Müll. Verh. Natuurl. Gesch. Land- en Volkenk.* p. 405 (1843); *Müll. & Schl. op. cit. Zool. Aves*, p. 69 (1846); *Blyth, J. A. S. B.* xv. p. 43 (1846); *Gray, Gen. B.* i. p. 99, no. 3 (1847); *Low, Sarawak*, p. 410 (1848); *Blyth, Cat. B. Mus. As. Soc.* pp. 222, 327 (1849); *Bp. C. A.* i. p. 410, no. 4 (1850); *Cab. Mus. Hein.* i. p. 106 (1850); *Reichb. Handb. Scansoriae*, p. 316, no. 748, pl. 592. fig. 4020 (1854); *Horsf. & Moore, Cat. B. E. I. Co. Mus.* ii. p. 729, no. 1061 (1856); *Moore, P. Z. S.* 1859, p. 460; *Pelz. Reise Nov., Vög.* p. 52 (1865); *Gray, Hand-l. B.* i. p. 111, no. 1377 (1869); *Salvad. Ann. Mus. Civ. Genova*, v. p. 181 (1874); *Sharpe, P. Z. S.* 1875, p. 107; *Hume, Str. F.* 1875, pp. 85, 319; *Sharpe, Ibis*, 1877, p. 18; *Tweeddale, tom. cit.* p. 301; *Shelley, Monogr. Nect.* p. 365, pl. 117; *Hume & Davison, Str. F.* vi. p. 177 (1878); *Sharpe, Ibis*, 1879, p. 261; *id. P. Z. S.* 1879, p. 343; *Salvad. Ann. Mus. Civ. Genova*, xiv. p. 214 (1879); *Oates, B. Brit. Burm.* i. p. 331.

*Cinnyris chrysogenys*, *Less. Man. d'Orn.* ii. p. 31 (1828).

*Arachnothera flavigenis*, *Swains. Class. B.* ii. p. 329 (1837).

*Adult male and female.* All the upper parts uniform dark olive-green, with a yellowish tinge to the wings and the tail, the latter without any blackish or whitish; inner web of quills edged with pale buff; præ- and subocular regions and part of the cheeks without feathers; supercilium and lower half of ear-coverts sulphur-yellow; throat greenish; breast and sides dull olive-yellow, with the shafts of many of the feathers brownish; abdomen and under tail-coverts

bright yellow; edge of wing and under wing-coverts mottled whitish.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
[♂]. Type of <i>A. longirostris</i> (Raffles).....	1.5	3.3	1.5	0.76
♂. Malacca.....	1.45	3.2	1.5	0.76
Penang.....	1.52	3.4	1.7	0.75
[♀ ad.]. Borneo.....	1.60	3.05	1.3	0.75

*Hab.* Malacca, Sumatra, Java, and Borneo.

a. Ad. st.	Indian archipelago.	Purchased.
b, c, d, e. Ad. sk.	Malacca ( <i>Cantor</i> ).	India Museum.
f. Ad. sk.	Malacca.	A. R. Wallace, Esq. [C.].
g. ♂ ad. sk.	Malacca ( <i>A. R. Wallace</i> ).	Gould Collection.
h. Ad. sk.	Singapore.	Gould Collection.
i. Ad. sk.	Pinang.	E. W. Oates, Esq. [C.].
k. Ad. sk.	Sumatra ( <i>Sir S. Raffles</i> ).	Gould Collection.
l. Ad. sk.	Sumatra ( <i>Sir S. Raffles</i> ).	( <i>A. longirostris</i> , Raffles.)
m. Ad. sk.	West Sumatra.	Dr. Faber [C.].
n, o. ♂ ♀ ad. st.	Borneo.	Purchased.
p. ♂ ad. st.	Java.	Purchased.
q. Ad. sk.	Java ( <i>Horsfield</i> ).	(Type of <i>A. longirostris</i> , Horsfield.)
r. [♀] ad. sk.	Borneo.	Rajah Brooke [P.].

### 8. *Arachnothera flaviventris*.

*Anthreptes flavigaster*, *Eyton*, *P. Z. S.* 1839, p. 105.

*Arachnothera flavigastra*, *Blyth*, *J. A. S. B.* xii. p. 981 (1843);  
*Moore*, *P. Z. S.* 1859, p. 460; *Pelzeln*, *Reise Novara*, *Vög.* p. 53  
(1865); *Tweeddale*, *Ibis*, 1877, p. 300.

*Arachnothera flavigaster*, *Blyth*, *J. A. S. B.* xiv. p. 557 (1845), xv.  
p. 43 (1846); *Gray*, *Gen. B.* i. p. 99, no. 5 (1847); *Blyth*, *Cat. B.*  
*Mus. As. Soc.* p. 222, no. 1342 (1849); *Horsf. & Moore*, *Cat. B.*  
*E. I. Co. Mus.* ii. p. 728, no. 1058 (1856); *Gray*, *Hand-l. B. i.*  
p. 111, no. 1369 (1869); *Hume*, *Str. F.* 1875, p. 85.

*Arachnothera latirostris*, *Reichb. Handb. Scansoriae*, 1 316, no. 747,  
pl. 593, figs. 4024-25 (1854).

*Arachnothera eytonii*, *Salvad. Ann. Mus. Civic. Genova*, v. p. 182  
(1874).

*Arachnothera simillima*, *Hume*, *Str. F.* 1877, p. 487; *id.* 1878,  
p. 171.

*Arachnoraphis flavigastra*, *Shelley*, *Monogr. Nect.* p. 373, pl. 120.

In general appearance very similar to *A. chrysogenys*, but this species is larger; the culmen is rounded; the region round the eye and the lower half of the ear-coverts are sulphur-yellow; cheeks covered with olive feathers; the shafts and centre of the feathers of the throat and breast are pale, not brownish; the sides and flanks have a little stronger tinge of greenish colour. "Iris deep brown; eyelids black; legs and feet reddish ochre; claws horny brown" (*Shelley*). Total length about 7 inches, excluding bill.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Type specimen .....	1·6	4·2	2·1	0·9
♂ ad. Malacca .....	1·56	4·4	2·2	0·91
♂ ad. Malacca .....	1·45	3·8	1·8	0·81
Ad. Malacca .....	1·7	4·5	2·2	0·90

*Hab.* Malacca, Sumatra, and Borneo.

<i>a.</i> [♂] ad. sk.	Malacca.	T. C. Eyton, Esq. (Type of <i>A. flavigaster</i> , Eyton.)
<i>b, c, d.</i> Ad. sk.	Malacca ( <i>Cantor</i> ).	India Museum.
<i>e, f.</i> Ad. sk.	Malacca.	India Museum.
<i>g, h.</i> Ad. sk.	Malacca.	W. Harvey, Esq. [P.].
<i>i.</i> ♂ ad. sk.	Malacca.	A. R. Wallace, Esq. [C.].
<i>k.</i> ♂ ad. sk.	Malacca ( <i>A. R. Wallace</i> ).	Gould Collection.

### 9. *Arachnothera novæ guineæ*.

*Cinnyris novæ guineæ*, *Less. Voy. Coq., Zool.* i. p. 677 (1823); *id. Man. d'Orn.* ii. p. 44.

*Arachnothera novæ guineæ*, *S. Müller et Schleg. Natuurl. Gesch. Zool.* p. 70, pl. 9. fig. 3 (1839-44); *Gray, Gen. B.* ii. p. 99; *Bp. C. A.* i. p. 410; *Sclat. Journ. Linn. Soc.* ii. p. 157; *Gray, Cat. B. New Guin.* p. 22; *id. P. Z. S.* 1858, p. 173, 1861, p. 434; *Rosenberg, Nat. Tijdschr. Nederl. Ind.* xxv. p. 237; *id. J. f. O.* 1864, p. 123; *id. Malay. Archip.* p. 364; *Bernstein, J. f. O.* 1864, p. 405; *Finsch, Neu-Guinea*, p. 162.

*Arachnoraphis novæ guineæ*, *Reichenb. Handb. spec. Orn.* p. 314, fig. 4030 (1853); *Gray, Hand-l. B.* i. p. 111, no. 1371.

*Melilestes novæ guineæ*, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 951 (1875); *id. Orn. Papuas. e Molucche*, ii. p. 315.

*Adult male and female.* Upper parts uniform olive-green; inner web of quills and the tail dusky brown; ocular region pale yellowish; all the underparts vivid yellow with a greenish tinge; sides of head olive-grey; under wing-coverts and inner edge of quills white, the former slightly tinged with yellow; under tail-coverts whitish yellow. The feathers of the back are fluffy and long; no pectoral tufts; culminal ridge strong.

♂. Culmen 1·2 inch, wing 2·5-2·7, tail 1·7, tarsus 0·65.

♀. " 1·0 " " 2·3, " 1·3, " 0·60.

*Hab.* Papuasias.

<i>a.</i> Ad. sk.	New Guinea.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>b.</i> Ad. sk.	New Guinea.	A. R. Wallace, Esq. [C.].
<i>c, d.</i> ♂; <i>e.</i> ♀ ad. sk.	Waigiou.	A. R. Wallace, Esq. [C.].
<i>f.</i> ♀ ad. sk.	Waigiou ( <i>Wallace</i> ).	Gould Collection.
<i>g.</i> ♂ ad. sk.	Mysol.	A. R. Wallace, Esq. [C.].
<i>h.</i> ♂; <i>i, k.</i> ♀ ad. sk.	Aru Islands.	A. R. Wallace, Esq. [C.].

10. *Arachnothera iliolophus*. (Plate I. fig. 2.)

*Melilestes iliolophus*, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 951 (1875), xvi. p. 75 (1880); *id. Orn. Papuas. e Molucche*, ii. p. 316, iii. p. 543; *Sharpe, Journ. Linn. Soc., Zool.* xvi. p. 437 (1882).

*Melilestes affinis*, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 952 (1875), xvi. p. 75; *id. Orn. Papuas. e Molucche*, ii. p. 317.

Crown, hind neck, mantle, and back uniform olive-green with a slight grey tinge, especially on the crown; wings, wing-coverts, and tail dark brown, externally washed with dull olive; sides of head and ear-coverts slightly darker than the throat, fore neck, and breast, which are pale yellowish grey washed with olive; abdomen and flanks inclining to whitish yellow, like the axillaries and a few tuft-like feathers on the sides of the breast; under wing-coverts and inner margin of remiges whitish; the feathers of the flanks and lower back extraordinarily fluffy, soft, and long; "bill black, whitish at the base of the mandible; feet lead-colour" (*Salvadori*).

The sexes are alike in plumage.

Culmen 0.73-0.85 inch, wing 2.4-2.6, tail 1.2-1.4, tarsus 0.75-0.82.

*Hab.* Islands of Miosnom and Jobi. South-eastern New Guinea.

*Obs.* Some specimens have the crown of the head and the upper chest slightly more washed with grey (*M. affinis*, *Salvad.*).

a. Ad. sk. Astrolabe Mountains, S.E. New Guinea. A. Goldie [C.].

b, c. ♂ ad. sk. Miosnom (April and May 1875). Dr. Beccari [C.].

11. *Arachnothera polioptera*. (Plate I. fig. 1.)

*Melilestes polioptera*, *Sharpe, Journ. Linn. Soc. Zool.*, xvi. pp. 318, 438 (1882).

*Melilestes poliopterus*, *Salvad. Ann. Mus. Civ. Genov.* xviii. p. 424; *id. Orn. Papuas. e Molucche*, iii. p. 543.

Crown of head dark slaty grey; side of head inclining to olive-grey, which colour is just perceptible on the crown; hind neck, mantle, and back rich olive-green; wings, wing-coverts, and tail blackish brown, externally broadly edged or washed with slaty grey; inner web of most of the tail-feathers narrowly tipped with white; under wing-coverts and inner margin of remiges silky white; all the underparts of the body uniform rich olive-yellow; centre of fore neck more yellow; upper throat more greyish; the feathers of the flanks and of the lower back fluffy, but far less than in *M. iliolophus*, and there is no indication of pectoral tufts; bill and feet dark brown. Culmen 1.25 inch, wing 2.65, tail 1.5, tarsus 0.65.

*Hab.* Astrolabe Mountains, S.E. New Guinea.

a. Ad. sk. Astrolabe Mountains.

A. Goldie [C.].  
(Type of species.)

## 8. ANTHOTHREPTES.

	Type.
Anthreptes, <i>Suains. Class. B.</i> ii. p. 329 (1837) . . . . .	A. malaccensis.
Cinnyricinclus, <i>Less. Rev.</i> iii. p. 272 (1840). . . . .	A. longuemarii.
Anthodiæta, <i>Cab. Mus. Hein.</i> i. p. 100 (1850) . . . . .	A. collaris.
Chalcopteria, <i>Cab. tom. cit.</i> p. 103. . . . .	A. phœnicotis.
Anthothreptes, <i>Cab. tom. cit.</i> p. 104. . . . .	A. malaccensis.
Mangusia, <i>Bp. Compt. Rend.</i> 1854, p. 265 . . . . .	A. rectirostris.
Euchloridia, <i>Reichb. Handb. Scansoriæ</i> , p. 312 (1854) . . . . .	A. rectirostris.
Hypogramma, <i>Reichb. tom. cit.</i> p. 314. . . . .	A. hypogrammica.
Tephrolæma, <i>Heine, J. f. O.</i> 1860, p. 137 . . . . .	A. tephrolæma.
Arachnophila, <i>Salvad. Ann. Mus. Civ. Genova</i> , v. p. 172 (1874) . . . . .	A. simplex.

Bill shorter than, or equal to, rest of the head; culmen and genys rather straight. Nostrils basal, operculated, exposed. First primary short; tip of wing formed by third, fourth, and fifth primaries. Tail square, or slightly rounded, shorter than wing. Tarsus entirely covered with scales. Male with metallic colours, sometimes pectoral tufts. No fluffy feathers on the back.

*Range.* Indo-Malayan and African.

*Key to the Species.*

- a. No pectoral tufts.  
 a'. Metallic colours confined to a narrow band on the hind neck, rump, and upper tail-coverts. . . . . *hypogrammica*, [p. 112].
- b. Bright pectoral tufts, or sides of breast bright yellow.  
 b'. No metallic colours; general colour olive-green *fraseri*, p. 113.
- c'. Metallic colours confined to the forehead; breast olive-grey . . . . . *simplex*, p. 114.
- d'. Metallic colours confined to the forehead, throat, and fore neck; breast red. . . . . *anchietæ*, p. 115.
- e'. Upper parts metallic.  
 a''. Underparts of body pure white . . . . . *longuemarii*, p. 115.
- b''. Throat metallic.  
 a'''. Breast and abdomen creamy white. . . . . *aurantia*, p. 116.
- b'''. Breast and abdomen rich yellow; whole throat metallic. . . . . *collaris*, p. 116.
- c'''. Breast and abdomen and upper throat grey . . . . . *tephrolæma*, p. 120.
- c''. Throat yellow; metallic collar across the chest . . . . . *rectirostris*, p. 119.
- d''. Throat and fore neck orange-brown; rest of underparts yellow.  
 d'''. Ear-coverts metallic coppery . . . . . *phœnicotis*, p. 121.
- e'''. Ear-coverts non-metallic, olive . . . . .  $\left. \begin{array}{l} \textit{malaccensis}, \text{ p. 122.} \\ \textit{griseigularis}, \text{ p. 126.} \end{array} \right\}$

1. *Anthothreptes hypogrammica*.

*Anthreptes macularia*, *Blyth, Journ. A. S. B.* xi. p. 107 (1842, *sine descr.*).



*Nectarinia hypogrammica*, *S. Müll. Natuurl. Gesch. Land- en Volkenk.* p. 173 (1843); *Müll. & Schl. op. cit. Zool., Aves*, p. 63, no. 14, pl. 8. fig. 3 (1846); *Gray, Gen. B. i.* p. 98 (1847); *Low, Sarawak*, p. 410 (1848); *Blyth, Cat. B. Mus. As. Soc.* p. 225, no. 1364 (1849).

*Anthreptes nuchalis*, *Blyth, J. A. S. B.* xii. p. 980 (1843, December); *Bouvier, Bull. Soc. Zool. Fr.* ii. p. 300 (1877).

*Nectarinia nuchalis*, *Gray, Gen. B. i.* p. 99 (1847).

*Anthreptes hypogrammica*, *Bp. C. A. i.* p. 409, no. 2 (1850); *Horsf. & Moore, Cat. B. E.I. Co. Mus.* ii. p. 738, no. 1078 (1856-58); *Moore, P. Z. S.* 1859, p. 461, no. 186; *Brügg. Abhandl. Ver. Bremen*, v. p. 458 (1876); *Hume & Davison, Str. F.* vi. p. 178 (1878); *Sharpe, Ibis*, 1879, p. 260; *Shelley, Monogr. Nect.* p. 305, pl. 98; *Hume, Str. F.* 1879, p. 90; *Oates, B. Brit. Burm.* i. p. 323.

*Hypogramma nuchalis*, *Reichb. Handb. Scansoriæ*, p. 314, no. 740, pl. 588, fig. 3992 (1854); *Salvad. Ann. Mus. Civ. Genova*, v. p. 172 (1874); *Hume, Str. F.* iii. p. 319 (1875).

*Arachnothera hypogrammica*, *Gray, Hand-l. B. i.* p. 113, no. 1397 (1869).

*Arachnechthra hypogrammica*, *Walden, Ibis*, 1870, p. 30.

*Arachnechthra macularia*, *Walden, Ibis*, 1872, p. 381.

*Adult male.* General colour above dark yellowish olive; a collar on the hind neck, the lower back, and the upper tail-coverts metallic purplish blue; tail blackish brown, with white tips to the inner webs; inner webs of quills brown, edged with white; outer webs and wing-coverts like the back; most of the feathers of the underparts with a broad dusky brown central streak, and broadly edged with yellow and whitish; flanks and under tail-coverts unstriped, brownish olive; under wing-coverts yellowish white. No pectoral tufts. Culmen 0.8 inch, wing 2.4-2.5, tail 1.9, tarsus 0.65.

*Female.* Like the male, but with the neck and the upper tail-coverts uniform olive-yellowish instead of metallic blue. Wing 1.75 inch.

*Hab.* From Southern Tenasserim down the Malayan Peninsula, Sumatra, Borneo.

a. ♂ ad. sk.	Malacca.	Purchased.
b. ♂ ad. sk.	Malacca.	India Museum.
c. ♀ ad. sk.	Pinang ( <i>Dr. Cantor</i> ).	India Museum.
d. ♂ ad. sk.	[Java.]	Purchased.
e. ♂ ad. sk.	Sarawak ( <i>A. Everett</i> ).	Gould Collection.
f. ♂ ad. sk.	N.W. Borneo.	H. Low, Esq. [C.]
g. ♂ ad. sk.	Simunjon ( <i>A. Everett</i> ).	Gould Collection.

## 2. *Anthothreptes fraseri*.

*Anthreptes fraseri*, *Jard. & Selby, Ill. Orn.* n. s. pl. 52 (1842); *Bp. C. A. i.* p. 409, no. 3 (1850); *Hartl. J. f. O.* 1854, p. 14; *Cass. Pr. Philad. Acad.* 1859, p. 37; *Du Chaillu, Equat. Afr.* p. 472 (1861); *Shelley, Monogr. Nect.* p. 307, pl. 99.

*Nectarinia fraseri*, *Gray, Gen. B. i.* p. 99, no. 98 (1847); *Hartl. Orn. W.-Afr.* pp. 50, 271 (1857); *id. J. f. O.* 1861, p. 109.

*Elæocerthia fraseri*, *Reichb. Handb. Scansoriæ*, p. 292, no. 682, pl. 578, fig. 3934 (1854).

*Mangusia fraseri*, *Bp. Comptes Rendus*, 1854, p. 265.

*Arachnothera fraseri*, *Gray, Hand-l. B. i.* p. 113, no. 1399 (1869).



Bill of *Anthothreptes fraseri*.

*Adult male.* All the upper parts uniform olive-green; inner webs of quills brown; tail and outer webs of quills washed with olive-yellow; all the underparts yellowish olive; pectoral tufts bright orange-red; edge of wing and under wing-coverts yellow; bill olive-yellow at base of mandible; feet olive-green.

*Female.* Like the male, but without tufts.

The following measurements of the male are taken from an apparently fully adult, and perfect male (Gaboon).

♂. Culmen 0·77 inch, wing 2·51, tail 1·6, tarsus 0·65.

♀. „ 0·5 „ „ 2·8, „ 2·4, „ 0·65. (*Shelley.*)

*Hab.* Fernando Po and Gaboon.

a. ♂ ad. sk.	Fernando Po.	L. Fraser, Esq. [C.].
b. [♂] ad. sk.	Gaboon ( <i>DuChailu</i> ).	R. B. Sharpe, Esq.
c. Ad. in spirit.	Gaboon.	H. Ansell, Esq. [P.].

### 3. *Anthothreptes simplex*.

*Nectarinia simplex*, *S. Müll. Natuurl. Gesch. Land- en Volkenk.* p. 173 (1843); *Müll. & Schl. op. cit. Zool., Aves*, p. 62, pl. 8, fig. 4 (1846); *Gray, Gen. B. i.* p. 98 (1847); *Low, Saravak*, p. 410 (1848); *Blyth, Cat. B. Mus. As. Soc.* p. 225, no. 1362 (1849).

*Nectarinia frontalis*, *Blyth, J. A. S. B.* xiv. p. 558 (1845).

*Cinnyris simplex*, *Bp. C. A. i.* p. 408, no. 39 (1850).

*Arachnoraphis simplex*, *Reichb. Handb. Scansoriæ*, p. 313, no. 736, pl. 594, fig. 4028 (1854).

*Arachnothera simplex*, *Gray, Hand-l. B. i.* p. 111, no. 1370 (1869).

*Arachnechthra simplex*, *Walden, Ibis*, 1870, p. 31.

*Arachnophila simplex*, *Salvad. Ann. Mus. Civ. Genova*, v. p. 172 (1874); *Tweedd. Ibis*, 1877, p. 301; *Salvad. Ann. Mus. Civ. Genova*, xiv. p. 212 (1879).

*Anthreptes simplex*, *Hume, Str. F.* iii. p. 319, no. 232 quart. (1875); *Sharpe, Ibis*, 1877, p. 18; *Brügg. Abhandl. Ver. Bremen*, v. p. 458 (1877); *Hume & Davison, Str. F.* vi. p. 188 (1878); *Shelley, Monogr. Nect.* p. 309, pl. 100.

*Anthreptes xanthochlora*, *Hume, tom. cit.* p. 320, no. 232 quint.

*Adult male.* Forehead metallic green or blue-black; rest of upper parts olive-green; wings and tail brownish olive-yellow; inner margin of remiges, some of the under wing-coverts, chin, and throat silky whitish, this colour gradually changing into the pale whitish or yellowish green of the rest of the underparts; bill blackish brown,

base of mandible pale. Culmen 0·65 inch, wing 2·25, tail 1·95, tarsus 0·6.

The *female* resembles the male, but wants the metallic colour on the forehead.

*Hab.* Borneo.

<i>a.</i> ♂ ad. sk.	Borneo.	Purchased.
<i>b, c.</i> ♂ ad. sk.	Paku, Sarawak, Dec. 1878.	II. Everett, Esq. [C.].
<i>d.</i> ♀ ad.; <i>e.</i> Juv. sk.	Sarawak.	H. Everett, Esq. [C.].

#### 4. *Anthothreptes anchietæ*.

*Nectarinia anchietæ*, *Bocage, Journ. Lisb.* 1878, p. 1.

*Anthreptes anchietæ*, *Shelley, Monogr. Nect.* p. 329, pl. 106.

*Adult male.* General colour above, including sides of head, wings, and tail, olive-brown; the tail with narrow pale edges; forehead and entire fore neck metallic steel-blue and green; all the rest of the underparts bright yellow; middle of breast and under tail-coverts strongly washed with bright scarlet; bill and feet black. Culmen 0·5 inch, wing 2·4, tail 1·6, tarsus 0·7. (*Shelley.*)

*Hab.* Benguela.

#### 5. *Anthothreptes longuemarii*.

*Cinnyris longuemarii*, *Less. Bull. Soc. Nat.* xxv. p. 242 (1831); *id. Ill. Zool.* pl. 23 (1831).

*Anthreptes leucosoma*, *Swains. B. W. Afr.* ii. p. 146, pl. 17 (1837); *Allen & Thomson, Exped. Niger*, i. p. 250 (1848).

*Cinnyricinclæ leucosoma*, *Lafresnaye, Rev. Zool.* 1840, p. 272; *Reichb. Handb. Scansoriae*, p. 305, no. 715, pl. 588, figs. 3993-94 (1854).

*Nectarinia longuemarii*, *Gray, Gen. B. i.* p. 99, no. 99 (1847); *Hartm. J. f. O.* 1865, p. 76, 1866, p. 207; *Heugl. Orn. N.O.-Afr.* p. 234 (1871); *Bocage, Journ. Lisb.* 1878, p. 2.

*Anthreptes longuemarii*, *Ep. C. A.* i. p. 409, no. 4 (1850); *Hartl. Orn. W.-Afr.* p. 53 (1857); *Heugl. J. f. O.* 1864, p. 263; *Sharpe, Cat. Afr. B.* p. 41, no. 386 (1871); *Oustal. N. Arch. Mus.* i. p. 152 (1878); *Shelley, Monogr. Nect.* p. 335, pl. 108.

*Adult male.* Crown of head, hind neck, upper throat, entire back, shoulders, and upper tail-coverts brownish black, with a strong metallic gloss, this gloss being least developed on the tail, where the blackish brown is more predominant: in position B all these parts are beautiful violet or purplish blue, in position C black with a slight greenish-purple lustre; tail, wings, and their coverts, sides of head, ear-coverts, and chin dark brown; all the rest of the underparts pure white. With bright yellow pectoral tufts.

*Adult female.* Upper tail-coverts and tail brownish black and purple as in the male; wings brown, slightly edged with olive; rest of upper parts and sides of head earthy brown; a superciliary stripe and all the underparts pure white, with the exception of the abdomen and under tail-coverts, which are pale yellow. No pectoral tufts.

♂. Culmen 0·72 inch, wing 3·0, tail 2·1, tarsus 0·7.

♀. " " 0·72 " " " 2·6, " 1·9, " 0·7.

*Hab.* Northern half of Ethiopian Region.

a. ♂ ad. ; b. Imm. sk.	Gambia.	Purchased.
c. ♂ ; d, e. ♀ ad. sk.	Casamanze.	R. B. Sharpe, Esq.

### 6. *Anthothreptes aurantia*.

*Anthreptes aurantium*, *Ferr. Rev. et Mag. Zool.* 1851, p. 417 ; *Hartl. J. f. O.* 1854, p. 14, no. 129.

*Anthreptes aurantius*, *Strickl. Contr. Orn.* 1851, p. 133 ; *Oust. Bull. Soc. Philom.* 7th series, i. p. 106 (1877) ; *id. N. Arch. Mus.* i. p. 94 (1878).

*Cinnyricincla aurantia*, *Reichb. Handb. Scansoriae*, p. 306, no. 716 (1854) ; *Bp. Comptes Rendus*, 1854, p. 265.

*Nectarinia aurantium*, *Müll. J. f. O.* 1855, p. 16, no. 176.

*Anthreptes aurantia*, *Hartl. Orn. W.-Afr.* p. 53 (1857) ; *Cass. Pr. Philad. Acad.* 1859, p. 37, no. 48 ; *Du Chaillu, Equat. Afr.* p. 472 (1861) ; *Hartl. J. f. O.* 1861, p. 110 ; *Sharpe, Cat. Afr. B.* p. 41, no. 387 (1871) ; *id. P. Z. S.* 1871, pp. 609, 615 ; *Shelley, Monogr. Nect.* p. 331, pl. 109.

*Anthothreptes aurantia*, *Heine, J. f. O.* 1860, p. 138.

*Arachnothera aurantia*, *Gray, Hand-l. B.* i. p. 113, no. 1401 (1869).

*Adult male.* All the upper parts, sides of head and neck, and the upper throat black, with a brilliant metallic gloss ; wing-coverts and outer edges of secondaries glossy green in position B, blue in position C. In position B the head all round and the greater part of the back are brilliant dark green, whilst the hind neck, part of the mantle, and the whole tail are deep steel-blue ; in position C all these parts change into dark purplish blue. All the underparts, except the metallic throat, are uniform buffy white. Pectoral tufts very well developed and of a rich orange-colour. Culmen 0·72 inch, wing 2·5-2·7, tail 1·8-2, tarsus 0·7.

*Adult female.* Wanting the pectoral tufts ; cheeks, ear-coverts, fore neck, and throat white ; rest of underparts, including the chest, pale yellow ; the colour of the upper parts resembling the male, but with the hind neck green instead of blue. Wing 2·4 inches.

*Young.* Upper parts olive, inclining to ashy grey on the crown ; wings and tail brown, the former broadly edged with olive ; outer pairs of tail-feathers with large pale tips ; sides of head and fore neck dingy white ; rest of underparts pale yellow. Wing 2·15 inches, tail 1·4, tarsus 0·67.

*Hab.* West Africa, from Cameroons to Gaboon ; Fernando Po.

a. ♂ ad. sk.	Cameroons ( <i>Crossley</i> ).	R. B. Sharpe, Esq.
b. [♀] juv. sk.	Fernando Po.	R. B. Sharpe, Esq.
c, d. ♂ ♀ ad. sk.	Gaboon.	R. B. Sharpe, Esq.

### 7. *Anthothreptes collaris*.

*A. A. collaris.*

Le Sucrier gamtocin ou à cordon bleue, *Levaill. Ois. d'Afr.* vi. p. 174, pl. 299 (1808) ; *Sundev. Krit. Framst., Levaill.* p. 57 (1857).

- Cinnyris collaris*, *Viell. N. Dict. d'Hist. Nat.* xxxi. p. 502 (1819); *Bonn. et Viell. Enc. Méth.* ii. p. 590 (1823); *Less. Man. d'Orn.* ii. p. 42 (1828); *id. Dict. Class. d'Hist. Nat.* xv. p. 511 (1829).
- Cinnyris metallicus*, *Less. Traité d'Orn.* p. 294 (1831).
- Nectarinia collaris*, *Drapiez, Dict. Class.* xv. p. 511 (1829); *Jard. Monogr. Sun-birds*, pp. 179, 251, pl. 6 (1843); *Gray, Gen. B. i.* p. 97 (1847); *Ip. C. A. i.* p. 406, no. 5 (1850); *Jard. Contr. Orn.* 1851, p. 153; *Müll. J. f. O.* 1855, p. 13, no. 136; *Gurney, Ibis*, 1860, p. 208; *id. Ibis*, 1864, p. 358; *Finsch, J. f. O.* 1867, p. 246; *Layard, B. S. Afr.* p. 77, no. 125 (1867); *id. Ibis*, 1869, p. 365; *Gray, Hand-l. B. i.* p. 108, no. 1314 (1869); *Sharpe, Cat. Afr. B.* p. 41, no. 381 (1871); *Shelley, Ibis*, 1875, p. 70, no. 35.
- Anthodiæta collaris*, *Cab. Mus. Hein.* i. p. 100 (1850); *Reichb. Handb. Scansoriæ*, p. 293, no. 688, pl. 590. figs. 4005-6 (1854); *Sharpe, ed. Layard's B. S. Afr.* p. 320 (1876); *Shelley, Monogr. Nect.* p. 339, pl. 110.
- Nectarinia gamtocensis*, *Ferr. Contr. Orn.* 1851, p. 152.

B. *A. hypodila*.

- Nectarinia hypodilus*, *Jard. Contr. Orn.* 1851, p. 153; *Hartl. J. f. O.* 1854, p. 12, no. 115; *Müll. J. f. O.* 1855, p. 16, no. 169; *Hartl. Orn. W.-Afr.* p. 52, no. 149 (1857); *Bocage, Journ. Lisb.* i. p. 135, no. 36 (1866); *Gray, Hand-l. B. i.* p. 108, no. 1317 (1869); *Reichenow, J. f. O.* 1875, p. 31; *Bocage, Orn. d'Angola*, p. 176 (1877); *Reichen. J. f. O.* 1877, p. 25.
- Nectarinia collaris*, *Ferr. in Jard. Contr. Orn.* 1851, p. 152 (*nec Viell.*).
- Anthodiæta subcollaris*, *Reich. Handb. Scansoriæ*, p. 293, no. 686, pl. 590. figs. 4007-8 (1854); *Oust. Bull. Soc. Philom.* 7th series, i. p. 106 (1877).
- Anthodiæta hypodelos*, *Reich. Handb. Scansoriæ*, p. 293, no. 687 (*ex Jard.*).
- Nectarinia subcollaris*, *Hartl. Orn. W.-Afr.* p. 52, no. 150 (1857); *Cass. Pr. Philad. Acad.* 1859, p. 36; *Heine, J. f. O.* 1860, p. 137; *Hartl. l. c.* p. 109; *Gray, Hand-l. B. i.* p. 108, no. 1315 (1869); *Sharpe, Ibis*, 1870, p. 478; *id. P. Z. S.* 1871, pp. 609, 615; *Bouvier, Cat. Ois. Marche &c.* p. 13 (1875).
- Cinnyris hypodilus*, *Sharpe & Bouvier, Bull. S. Z. France*, 1876, p. 41.
- Anthodiæta hypodila*, *Oust. N. Arch. Mus.* i. p. 85 (1878); *Shelley, Monogr. Nect.* p. 345, pl. 111. figs 1 & 2.

C. *A. zambesiana*.

- Nectarinia collaris*, *Kirk, Ibis*, 1864, p. 320, no. 43 (*nec Viell.*); *Hartl. P. Z. S.* 1867, p. 824; *Finsch & Hartl. Vög. Ost-Afr.* p. 223, no. 102 (1870); *Sharpe, P. Z. S.* 1873, p. 713, no. 18; *Fischer & Reichen. tom. cit.* p. 260.
- Anthodiæta collaris*, *Cab. in Von der Decken's Reis. Ost-Afr.* iii. p. 28, no. 21 (1869); *id. J. f. O.* 1878, p. 226.
- Anthodiæta zambesiana*, *Sharpe, ed. Layard's B. S. Afr.* p. 321 (1876); *Nicholson, P. Z. S.* 1878, p. 356; *Shelley, Monogr. Nect.* p. 343, pl. 111. fig. 3; *id. P. Z. S.* 1879, p. 571.

A. *South-eastern Race* (*A. collaris*).

*Adult male.* Head and neck all round and all the upper parts, including the wing-coverts and outer webs of the secondaries,

brilliant metallic golden green, which colour in position C changes into a deep bluish green; tail blackish green, externally edged with the colour of the back; inner webs of quills and of greater coverts blackish brown, with a whitish inner edge; the metallic green on the fore neck separated from the yellow parts by an irregular purplish-blue band; all the rest of the underparts yellow, the pectoral tufts still brighter; sides and flanks slightly washed with olive; under wing-coverts, edge of wing, and axillaries white and pale yellow. Culmen 0·5-0·6 inch, wing 2·15, tail 1·4-1·5, tarsus 0·65.

*Female.* Like the male, but with the throat and fore neck pale whitish and yellow. Wing 1·9 inch.

*Hab.* South Africa.

### B. *Northern Race* (*A. hypodila*).

*Adult male.* Greater and median wing-coverts and secondary quills externally edged with olive-yellow instead of metallic green; all the other parts as in *A. collaris*. Wing 1·95-2·1 inches.

*Immature birds* have the tail dark brown, washed with olive.

*Young birds.* Upper parts olive; inner webs of quills and tail brown; nape and hind neck greyish; throat, fore neck, and chest silvery white; rest of underparts pale sulphur-yellow.

*Hab.* Guinea and Zanzibar district.

*Obs.* Specimens from East Africa (*A. zambesiana*), as was to be expected, have the wings coloured like the Guinean form; the metallic parts in position B are less dark, but more golden green, with sometimes a slight coppery gloss. This gloss, however, varies much in different localities; the darkest shade of bluish green and least golden gloss is exhibited by specimens from Ashantee and Fantee, while in the Cameroons the gloss is golden.

### A. *South-eastern Specimens* (*A. collaris*).

<i>a.</i> ♂ ad. sk.	Gamtoos River, Aug. 1850 ( <i>J. Verreaux</i> ).	R. B. Sharpe, Esq.
<i>b.</i> [♀] sk.	Buffalo River, Sept. 1850.	R. B. Sharpe, Esq.
<i>c.</i> ♂ ad. sk.	Graham's Town ( <i>Layard</i> ).	R. B. Sharpe, Esq.
<i>d.</i> ♂ imm. sk.	Uitenhage, April 26, 1867 ( <i>Rickard</i> ).	R. B. Sharpe, Esq.
<i>e.</i> ♂ ad. sk.	Kingwilliamstown, June 11, 1877.	Capt. Trevelyan [P.].
<i>f, g.</i> ♂ ♀ ad. sk.	Natal, March 14.	Dr. Gueinzius [C.].
<i>h, i.</i> ♂ ♀ ad. sk.	Natal.	R. B. Sharpe, Esq.
<i>k.</i> ♂ ad. sk.	Natal.	T. Ayres, Esq. [C.].
<i>l.</i> ♀ ad. sk.	Natal ( <i>Ayres</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>m.</i> ♂ ad. sk.	Zambesi ( <i>Meller</i> ).	R. B. Sharpe, Esq.

### B. *Western Specimens* (*A. hypodila*).

<i>a, b.</i> ♂ ♀ ad. st.	W. Africa.	Purchased.
<i>c.</i> ♂ ad. sk.	W. Africa.	L. Fraser, Esq. [C.].
<i>d.</i> ♂ imm. sk.	Casamanze ( <i>J. Verreaux</i> ).	R. B. Sharpe, Esq.

<i>e, f.</i> ♂ ad., and imm. sk.	Ashantee.	J. Gould, Esq.
<i>g-k.</i> ♂ imm. sk.	Fantee.	R. B. Sharpe, Esq.
<i>l.</i> ♂ ad. sk.	Fantee ( <i>Ussher</i> ).	R. B. Sharpe, Esq.
<i>m, n.</i> ♂ ad.; <i>o, p.</i> ♂ imm. sk.	Fantee.	R. B. Sharpe, Esq.
<i>q.</i> ♂ imm. sk.	Fantee ( <i>Swanzy</i> ).	R. B. Sharpe, Esq.
<i>r.</i> ♂ ad. moult- ing sk.	River Volta ( <i>Ussher</i> ).	R. B. Sharpe, Esq.
<i>s.</i> ♀ ad. sk.	Cameroens.	R. B. Sharpe, Esq.
<i>t.</i> ♂ ad. sk.	Cameroons, Feb. 9, 1871 ( <i>Crossley</i> ).	R. B. Sharpe, Esq.
<i>u.</i> ♀ ad. sk.	Fernando Po.	R. B. Sharpe, Esq.
<i>r.</i> ♀ ad. sk.	Gaboon ( <i>Du Chaillu</i> ).	R. B. Sharpe, Esq.
<i>w, x, y.</i> ♂; <i>z.</i> ♀ ad. sk.	Gaboon.	R. B. Sharpe, Esq.
<i>a'.</i> ♂ ad. sk.	Ebo.	Capt. Thomson [P.].
<i>b'.</i> ♀ ad. sk.	Congo.	Commander Sperling [P.].
<i>c'.</i> Ad. in spirit.	W. Africa.	Purchased.

C. *Eastern Specimens* (*A. zambesiana*).

<i>a.</i> ♂ ad. sk.	Shupanga, Zambesi.	Sir J. Kirk [C.]. (Type of <i>A. zambesiana</i> .)
<i>b, c.</i> ♂ ♀ ad. sk.	Zambesi.	Sir J. Kirk [C.].
<i>d.</i> ♂ ad. sk.	Dar-es-Salaam, Zanzibar.	Messrs. Moir [C.].
<i>e.</i> ♂ ad. sk.	Mombasa, July 1876.	J. M. Hildebrandt [C.].
<i>f.</i> ♀ ad. sk.	Mombasa ( <i>Wakefield</i> ).	R. B. Sharpe, Esq.
<i>g, h.</i> ♂ ♀ ad. sk.	Mombasa.	Rev. H. Fowell Buxton [P.].

8. *Anthothreptes rectirostris*.

- Souï-manga à bec droit, *Audeb. et Vieill. Ois. Dor.* ii. p. 112, pl. 75 (1802).
- Certhia rectirostris*, *Shaw, Gen. Zool.* viii. p. 246 (1811, *ex Aud. et Vieill.*); *Bechst. Kurze Uebers.* p. 194, no. 84 (1812).
- Cinnyris rectirostris*, *Cuv. Règne Anim.* i. p. 412 (1817); *Bp. C. A.* i. p. 405, no. 16 (1850).
- Cinnyris elegans*, *Vieill. N. Diet. d'Hist. Nat.* xxxi. p. 506 (1819); *Bonn. et Vieill. Enc. Méth.* ii. p. 590 (1823); *Vieill. et Oud. Gal. Ois.* i. p. 292, pl. 178 (1825); *Less. Man. d'Orn.* ii. p. 60 (1828); *id. Traité*, p. 298 (1831).
- Strait-billed Creeper, *Lath. Gen. Hist.* iv. p. 259, no. 61 (1822).
- Nectarinia rectirostris*, *Jard. Monogr. Sun-birds*, p. 271 (1843); *Müll. J. f. O.* 1855, p. 15, no. 165; *Gray, Hand-l. B.* i. p. 109, no. 1335 (1869).
- Euchloridia rectirostris*, *Reichb. Handb. Seansoricæ*, p. 312, no. 730, pl. 590, fig. 4003 (1854).
- Mangusia rectirostris*, *Bp. Comptes Rendus*, 1854, p. 265.
- Nectarinia phæothorax*, *Hartl. J. f. O.* 1861, p. 108; *Gray, Hand-l. B.* i. p. 107, no. 1296 (1869); *Sharpe, Cat. Afr. B.* p. 41, no. 383 (1871).
- Nectarinia fantensis*, *Sharpe, Ibis*, 1870, pp. 52, 474, and 1871, pp. 441, 470; *Hartl. op. cit.* 1870, p. 443.
- Nectarinia gabonica* (*nee Hartl.*), *Sharpe, Cat. Afr. B.* p. 41 (1871); *id. Ibis*, 1872, p. 70.
- Nectarinia tephrolæma* (juv.), *Sharpe, Ibis*, 1872, p. 69.
- Anthodicta rectirostris*, *Shelley, Monogr. Nect.* p. 331, pl. 107.

*Adult male.* Upper and side parts of head and neck, shoulders, mantle, and lesser wing-coverts metallic, golden green in positions A and B, dark bluish green in position C; on the lower back and on the upper tail-coverts this colour changes into olive, with no or scarcely any metallic gloss; wings, greater coverts, and tail brown, externally edged with olive-yellow; chin and fore neck dull yellow; pectoral tufts bright yellow; across the chest a broad metallic crescent of the colour of the hind neck; the collar bordered on its lower margin by a narrow orange band; all the rest of the underparts dull whitish yellow.

*Female.* Above dark olive-greenish; all the underparts yellow, with a faint dusky shade; entire tail olive.



Bill of *Anthothreptes rectirostris*.

*Hab.* West Africa.

<i>a.</i> Ad. sk.	River Gambia.	R. B. Sharpe, Esq.
<i>b, c.</i> ♀ ad. sk.	Bathurst, R. Gambia ( <i>Marche</i> ).	R. B. Sharpe, Esq.
<i>d.</i> ♂ ad. sk.	Ashantee.	R. B. Sharpe, Esq.
<i>e, f.</i> ♂; <i>g, h.</i> ♀ ad. sk.	Ashantee.	J. Gould, Esq.
<i>i.</i> ♂ ad. sk.	Takwa District, Wasa, Gold Coast.	Capt. Burton and Cameron [P.].
<i>k.</i> ♂ ad. sk.	Fantee.	A. Swanzy, Esq. [P.].
<i>l.</i> ♂ ad. sk.	Fantee.	R. B. Sharpe, Esq.
<i>m.</i> ♂ juv. sk.	Fantee.	(Type of <i>N. fantensis</i> ) R. B. Sharpe, Esq.
<i>n, o.</i> ♂ ad.; <i>p, q.</i> ♂ juv. sk.	Fantee ( <i>Aubinn</i> ).	R. B. Sharpe, Esq.
<i>r.</i> ♀ ad. sk.	Accra.	R. B. Sharpe, Esq. [P.].
<i>s.</i> Ad. sk.	River Volta ( <i>Ussher</i> ).	R. B. Sharpe, Esq. [P.].
<i>t.</i> ♀ ad. sk.	Fernando Po.	L. Fraser, Esq. [C.].

### 9. *Anthothreptes tephrolæma*.

*Nectarinia tephrolæma*, *Jard. & Fraser, Contr. Orn.* 1851, p. 154; *Jard. Contr. Orn.* 1852, p. 59; *Hartl. Orn. W.-Afr.* p. 51, no. 148 (1857); *Cass. Pr. Philad. Acad.* 1859, p. 36; *Hartl. J. f. O.* 1861, p. 109; *Gray, Hand-l. B. i.* p. 108, no. 1319 (1869); *Sharpe, Cat. Afr. B.* p. 41, no. 384 (1871); *Bocage, Orn. d'Angola*, p. 177 (1877).

*Anthodizeta tephrolæma*, *Reichb. Handb. Scausoriæ*, p. 294, no. 689 (1854); *Sharpe, Ibis*, 1875, p. 69; *Oust. Bull. Soc. Philom.* 7th series, p. 106 (1877); *id. N. Arch. Mus.* i. p. 87 (1878); *Shelley, Monogr. Nect.* p. 333.

*Tephrolæma resplendens*, *Heine, J. f. O.* 1860, p. 137.

*Nectarinia chlorolæma* (by "misprint"), *Hartl. P. Z. S.* 1860, p. 7.

*Nectarinia gabonica*, *Hartl. J. f. O.* 1861, pp. 13, 109; *Gray, Hand-l. B. i.* p. 107, no. 1300 (1869).

*Adult male.* Closely allied to *A. rectirostris*, but differing in the colour of the underparts; neck all round and chest metallic, like



the upper parts, golden green and coppery in positions A and B, dark bluish green in position C; chin, upper throat, and breast grey, this colour changing into olive-yellowish on the flanks and abdomen; sides of breast olive-grey; pectoral tufts bright yellow; the metallic chest separated from the grey breast by a narrow orange band; under wing-coverts white, with scarcely any yellow. Culmen 0·5–0·6 inch, wing 2·2–2·4, tail 1·3–1·5, tarsus 0·56–0·6.

*Adult female.* Like that of *A. rectirostris*, but with the whole of the under surface, including the throat, dingy yellow, with a slight grey tinge. Wing 2·1 inches. (Ogowé River.)

*Hab.* West Africa, from Gaboon to Angola.

a. ♂ imm. st. (moulting).	W. Africa.	L. Fraser, Esq. [C.].
b. ♂ ad. sk.	W. Africa.	M. Verreaux.
e. ♂ ad. sk.	W. Africa.	M. Verreaux.
d. ♂ ad. sk.	Gaboon ( <i>Du Chaillu</i> ).	R. B. Sharpe, Esq.
e, f. ♂ ad. sk.	Gaboon.	R. B. Sharpe, Esq.
g. ♀ ad. sk.	R. Ogowé ( <i>Marche</i> ).	R. B. Sharpe, Esq.
h. ♂ ad. sk.	Angola ( <i>Monteiro</i> ).	R. B. Sharpe, Esq.

### 10. *Anthothreptes phœnicotis*.

- Green Warbler, *Brown, Zool. Ill.* p. 82, pl. 32, fig. 2 (1776).  
 Cingalese Warbler, *Lath. Gen. Syn.* ii. p. 474 (1783).  
 Yellow-bellied Creeper, *Lath. Gen. Syn. Supp.* i. p. 131 (1787).  
*Motacilla singalensis*, *Gm. S. N.* i. p. 964 (1788).  
*Sylvia singalensis*, *Lath. Ind. Orn.* ii. p. 533 (1790).  
*Certhia lepida*, *Lath. Ind. Orn.* i. p. 299, var. β (1790).  
*Nectarinia phœnicotis*, *Temm. Pl. Col.* 108, fig. 1, 388, fig. 2 (1824);  
*S. Müll. & Schleg. Verh. Nat. Gesch., Aves*, p. 63 (1846); *Low, Sarawak*, p. 410 (1848); *Blyth, Cat. B. Mus. As. Soc.* p. 225 (1849).  
*Cinnyris phœnicotis*, *Less. Man. d'Orn.* ii. p. 38 (1828); *id. Traité d'Orn.* i. p. 298; *Bp. C. A.* i. p. 408.  
*Anthreptes rectirostris*, *Blyth, J. A. S. B.* x. p. 925 (1841).  
*Anthreptes phœnicotis*, *Blyth, J. A. S. B.* xii. p. 979 (1843), xiv. p. 557 (1845); *Shelley, Monogr. Nect.* p. 325, pl. 105.  
*Nectarinia cingalensis*, *Gray, Gen. B.* i. p. 99 (1847); *Mott. & Dillw. Contr. Nat. Hist. Labuan*, p. 16 (1855); *Pelzeli, Novara Reise, Vög.* i. p. 52 (1865).  
*Chalcoparia cingalensis*, *Cab. Mus. Hein.* i. p. 103, note (1850); *Bp. C. R.* xxxix. p. 265 (1854); *Reichenb. Handb. Seansor.* p. 304, pl. 587, figs. 3987–88 (1854); *Hume, Str. F.* 1875, p. 86; *Armstrong, Str. F.* 1876, p. 313.  
*Chalcoparia phœnicotis*, *Bp. C. R.* xxxix. p. 265 (1854); *Horsf. & Moore, Cat. B. E.I. Co. Mus.* ii. p. 747 (1856); *Moore, P. Z. S.* 1859, p. 463; *Blyth & Walden, Cat. Mamm. & Birds Burma*, p. 142 (1875); *Tweeddale, Ibis*, 1877, p. 303.  
*Anthreptes singalensis*, *Walden, P. Z. S.* 1866, p. 543; *Brügg. Abhandl. Ver. Bremen*, v. p. 458 (1877); *Hume, Str. F.* 1877, p. 28; *Oates, B. Brit. Burn.* i. p. 326.  
*Promerops singalensis*, *Gray, Hand-l. B.* i. p. 111, no. 1364 (1869).  
*Chalcoparia singalensis*, *Walden, Ibis*, 1870, p. 48; *Salvad. Ann. Mus. Civ. Gen.* v. p. 180 (1874); *Hume & Davison, Str. F.* 1878, p. 189; *Hume, Str. F.* 1879, p. 90.

*Adult male.* Quills and tail black, all the rest of the upper parts metallic, perfectly black in position A, brilliant dark green in B, and dark blue in position C; sides of head and ear-coverts coppery purple; along the sides of the neck a metallic purple band, which does not extend over the cheeks; the latter, as well as the throat and fore neck, warm fawn-colour; rest of underparts yellow with a greenish tinge; edge of wing metallic green and blue; under wing-coverts white; inner web of quills edged with white; outer web of secondaries often washed with dark blue; tail edged with the metallic colour of the back; feet greenish. Culmen 0·55–0·6 inch, wing 1·95–2·15, tail 1·7, tarsus 0·65.

*Female.* Dull olive-green above; tail and wings dusky brown, strongly washed with olive-yellow; throat and fore neck fawn-colour; rest of the underparts of the body greenish yellow; under wing-coverts white.

*Hab.* From Bootan to Malacca and over the Sunda Islands.

a. ♀ ad. sk.	Khasia hills ( <i>Jerdon</i> ).	Gould Collection.
b. ♂ ad. sk.	Rangoon, Oct. 4, 1874.	E. W. Oates, Esq. [C.].
c. ♂ juv. sk.	Pegu, Nov. 20, 1877.	E. W. Oates, Esq. [C.].
d. ♀ ad. sk.	Lower Pegu, Dec. 30, 1878.	E. W. Oates, Esq. [C.].
e. ♂ ad. sk.	Tenasserim.	J.C.D. Packman, Esq. [P.].
f, g. ♂ ♀ ad. st.	Malacca.	Purchased.
h, i. ♂ ♀ ad.;	Malacca ( <i>Dr. Cantor</i> ).	India Museum.
k. ♂ imm. sk.		
l, m. ♂ ad. et juv. sk.	Malacca.	A. R. Wallace, Esq. [C.].
n, o. ♂ ad. sk.	Malacca.	W. Harvey, Esq. [P.].
p, q. ♂ ♀ ad. sk.	Malacca.	Capt. Stackhouse Pinwill [P.].
r. ♂ ad. sk.	Sumatra.	A. R. Wallace, Esq. [C.].
s. ♂ ad. sk.	E. Java.	A. R. Wallace, Esq. [C.].
t. [♀] ad. sk.	W. Java ( <i>Buxton</i> ).	F. Nicholson, Esq. [P.].
u, v. ♂ imm. sk.	Labuan ( <i>Low</i> ).	R. B. Sharpe, Esq. [P.].
w, x. ♂ ♀ ad. sk.	Borneo.	F. D. Godman and O. Salvin, Esqrs. [P.].
y. ♀ ad. sk.	Banjermassing.	J. Motley, Esq. [C.].
z. ♂ ad. sk.	Sarawak.	A. R. Wallace, Esq. [C.].

### 11. *Anthothreptes malaccensis*.

Le Grimpereau de Malacca, *Sonn. Voy. Ind.* ii. p. 209, pl. 116. fig. 1 (1782).

*Certhia malaccensis*, *Scop. Del. Flor. et Faun. Insubr.* ii. p. 91 (1786, *ex Sonnerat*).

Yellow-bellied Creeper, *Lath. Gen. Syn. Suppl.* p. 131 (1787); *id. Gen. Hist. B.* iv. p. 229 (1822).

*Certhia lepida*, *Lath. Ind. Orn.* i. p. 298 (1790); *Shaw, Gen. Zool.* viii. p. 213 (1811).

Le Soui-manga de Malacca, *Aud. et Vieill. Ois. Dor.* ii. p. 63 (1802).

*Nectarinia javanica*, *Horsf. Tr. Linn. Soc.* xiii. p. 167 (1820); *Moll. & Dilho. Contr. Nat. Hist. Labuan*, p. 15 (1855).

*Certhia javanica*, *Raffl. Tr. Linn. Soc.* xiii. p. 299 (1822).

Javan Creeper, *Lath. Gen. Hist. B.* iv. p. 265 (1822).

*Cinnerys javanicus*, *Swains. Zool. Ill.* iii. p. 121 (1822–23); *Vig. Mem. Raffl.* p. 673 (1830); *Eyton, P. Z. S.* 1839, p. 101.

- Cinnyris lepidus*, *Viell. N. Dict. d'Hist. Nat.* xxxi. p. 504 (1819); *id. Enc. Méth.* ii. p. 592 (1823); *id. Gal. Ois.* i. p. 291, pl. 177 (1825); *Less. Man. d'Orn.* ii. pp. 33, 58 (1828); *id. Traité d'Orn.* i. p. 298 (1831).
- Cinnyris ruficollis*, *Viell. Enc. Méth.* ii. p. 600 (1823).
- Nectarinia lepida*, *Temm. Pl. Col.* 126. figs. 1, 2 (1823); *Drapiez, Dict. Class.* xv. p. 512 (1829); *Low, Sarawak*, p. 410 (1848); (pt.) *Finsch, Neu-Guinea*, p. 163 (1865).
- Anthreptes javanica*, *Swains. Class. B.* ii. p. 329, fig. 288 f (1837).
- Nectarinia malaccensis*, *Blyth, J. A. S. B.* xii. p. 980 (1843); *Gray, Gen. B.* i. p. 99 (1847); *Pelzeln, Novara Reise, Vög.* pp. 52, 161 (1865).
- Anthreptes lepida*, *Bp. C. A.* i. p. 409 (1850); *Wallace, P. Z. S.* 1862, pp. 343, 486 (pt.).
- Anthothreptes malaccensis*, *Cab. Mus. Heñ.* i. p. 104 (1850); *Blyth & Walden, Cat. Mamm. & Birds Burma*, p. 142 (1875); *Walden, Ibis*, 1876, p. 348.
- Anthreptes malaccensis*, *Reichenb. Handb. Scansor.* p. 305, pl. 588. figs. 3989-91 (1854); *Horsf. & Moore, Cat. B. E.I. Co. Mus.* ii. p. 737 (1856); *Moore, P. Z. S.* 1859, p. 461 (pt.); *Walden, Ibis*, 1870, p. 47 (pt.); *id. Trans. Zool. Soc.* viii. p. 70 (1871); (pt.) *Salvad. Ann. Mus. Civ. Gen.* v. p. 178 (1874); *Hume, Str. F.* 1874, p. 473; *Sharpe, P. Z. S.* 1875, p. 107, & 1879, p. 342; *Brügg. Abh. nat. Ver. Bremen*, v. pp. 72, 458 (1876); *Tweeddale, Ibis*, 1877, p. 302; *id. P. Z. S.* 1878, p. 621; *Sharpe, Tr. Linn. Soc.* 2nd series, *Zool.* i. p. 342 (1877); *Tweedd. P. Z. S.* 1878, p. 621; *Hume & Davis, Str. F.* vi. p. 186 (1878); *Salvad. Ann. Mus. Civ. Genova*, xiv. p. 213 (1879); *Nicholson, Ibis*, 1879, p. 166; *Sharpe, P. Z. S.* 1879, p. 342; *Shelley, Monogr. Nect.* p. 315, pl. 101. fig. 2.
- Arachnothera malaccensis*, *Gray, Hand-l. B.* i. p. 113 (1869).
- Nectarophila malaccensis*, *Stoliczka, J. A. S. B.* xxxix. p. 301 (1870); *Walden, Ibis*, 1871, p. 167.
- Nectarinia lepida*, (pt.) *Müll. & Schleg. Verh. Natuurl. Gesch.* p. 63 (1846); (pt.) *Finsch, Neu-Guinea*, p. 163 (1865).
- Anthreptes malaccensis*, pt., *Moore, P. Z. S.* 1859, p. 461; *Walden, Ibis*, 1870, p. 47; *id. Trans. Zool. Soc.* viii. p. 70 (1871); *Salvad. Ann. Mus. Civ. Gen.* v. p. 178 (1874); *Brügg. Abhandl. nat. Ver. Bremen*, v. p. 72 (1876); *Hume & Dav. Str. F.* 1878, p. 186; *Hume, Str. F.* 1879, p. 90; *Oates, B. Brit. Burm.* i. p. 324.
- Anthreptes lepida*, *Wallace, P. Z. S.* 1862, pp. 335, 343.
- Anthothreptes malaccensis*, pt., *Salvad. Ann. Mus. Civ. Gen.* vii. p. 661 (1875); *id. Atti R. Acc. Torin.* xii. p. 320 (1877).
- Anthreptes celebensis*, *Shelley, Monogr. Nect.* p. 319, pl. 103. figs. 2 & 3; *Meyer, Ibis*, 1879, p. 131.

*A. chlorogaster.*

*Anthothreptes malaccensis* (pt.), *Salvad. Ann. Mus. Civ. Gen.* vii. p. 661 (1875); *id. op. cit.* ix. p. 57 (1876); *id. Atti R. Acc. Torin.* xii. p. 320 (1877).

*Anthreptes chlorigaster*, *Sharpe, Trans. Linn. Soc.* 2nd series, *Zool.* i. p. 342 (1877).

*Anthreptes chlorigaster*, *Shelley, Monogr. Nect.* p. 321, pl. 103. fig. 1.

*Anthreptes rhodolama*, *Shelley, Monogr. Nect.* p. 313, pl. 101. fig. 1.

*Adult males from Java and Malacca.* Crown of head, hind neck, and upper back metallic, dark green in position C, green and purple in position B; least wing-coverts, lower back, upper tail-coverts, and outer edge of tail-feathers brilliant deep metallic blue, purplish

in position C; along the sides of the throat a narrow blue streak; in position A all the metallic parts perfectly black; tail bluish black; wings and coverts dark brown, more or less edged with olive-rufous, in particular the scapulars with broad maroon edges; sides of head and ear-coverts olive-brown; feathers of throat pale grey, broadly edged and washed with maroon-brown; in position A the throat is much paler and assumes a peculiar whitish gloss; chest and breast rich yellow, especially the pectoral tufts; abdomen and flanks washed with greenish; under wing-coverts white; edge of wing brownish.

*Obs.* Two males from Borneo (*A. rhodolaema*) have the whole breast olive-yellow like the abdomen and flanks; the pectoral tufts are bright yellow, and therefore very conspicuous; under wing-coverts pale buff, edged with yellow; median wing-coverts, scapulars, sides of head, and ear-coverts very deep maroon-red.

One adult male from Flores is intermediate between the Philippine and the Malacca birds.

Birds from the Philippines and from Celebes have the breast, abdomen, and flanks vivid greenish yellow; pectoral tufts bright yellow; axillaries and under wing-coverts white, washed with yellowish. Specimens intermediate in colour between the Philippine birds (*A. chlorogaster*) and the Javan brighter yellow form (*A. malaccensis*) occur, and are represented in the British Museum.

*Female.* Upper parts olive-green; wings and tail brown; ocular region and all the underparts yellow, palest on the fore neck, brighter and richer yellow on the breast; sides of body shaded with green; edge of wing yellowish white.

Females from Celebes and from the Philippines have the upper parts grey, washed with olive; ocular region and entire fore neck dull white, shading off on the rest of the underparts into pale greenish yellow, the latter colour becoming more pronounced on the abdomen. Female specimens intermediate in colour between the grey paler form and the olive or more yellow form occur in Borneo, Celebes, and Flores.

Measurements:—

	<i>Males.</i>			
	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.
Sarawak .....	0·7	2·7	1·8	0·63
Negros .....	0·8	2·8	1·9	0·65
Sumatra ( <i>Raffles</i> ) .....	0·75	2·65	1·8	
Flores .....	0·8	2·75	1·75	
Celebes .....	0·76	2·65	1·50	
Menado .....	0·7	2·65	1·70	
Menado .....	0·75	2·7	1·70	
Malacca.....	0·76	2·65	1·75	
Malacca.....	0·75	2·5	1·65	
Malacca.....	0·76	2·62	1·80	
Malacca.....	0·72	2·60	1·80	
Labuan.....	0·75	2·60	1·75	
Java ( <i>Horsfield</i> ) .....	0·78	2·70	1·82	
Java ( <i>Horsfield</i> ) .....	0·75	2·60	1·82	

*Females.*

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Labuan.....	0·72	2·50	1·65	
Menado.....	0·75	2·55	1·50	0·61
Flores .....	0·78	2·55	1·50	0·65

On account of the great differences in size, proportions, and colour exhibited by the females, we may separate these birds into two races:—

I. *Eastern, or larger Race* (*A. chlorogaster*).—*Male*. Upper parts more intensely coloured; underparts strongly tinged with green. *Female*. Greyish above, pale greenish grey below.—Philippines, Celebes, Flores.

II. *Western, or smaller Race* (*A. malaccensis typica*).—*Male*. Underparts rich yellow. *Female*. Upper parts olive-green, underparts rich greenish yellow.—Malacca, Sumatra, Java.

Between these regions intermediate forms occur.

*Western Race (A. malaccensis typica).*

<i>a, b.</i> ♂ ad.; <i>c.</i> Juv. sk.	Cochin China.	M. E. Pierre [P.]
<i>d, e.</i> ♀ ad. sk.	Siam ( <i>Schomburgk</i> ).	Gould Collection.
<i>f.</i> ♂ ad. sk.	Tenasserim ( <i>Helfer</i> ).	India Museum.
<i>g.</i> [♀] ad. sk.	Tenasserim.	J. C. D. Packman, Esq. [P.]
<i>h, i.</i> ♂ ♀ ad. sk.	Malacca.	A. R. Wallace, Esq. [C.]
<i>k, l.</i> ♂ ♀ ad. sk.	Malacca ( <i>Wallace</i> ).	Gould Collection.
<i>m.</i> ♀ ad. sk.	Malacca.	F. D. Godman and O. Salvin, Esqrs. [P.]
<i>n, o.</i> ♂ ad. sk.	Malacca.	W. Harvey, Esq. [P.]
<i>p.</i> ♂ ad. sk.	Malacca.	Purchased.
<i>q, r, s.</i> ♂; <i>t-u.</i> ♀ ad. sk.	Penang ( <i>Cantor</i> ).	India Museum.
<i>x.</i> ♂ imm. sk.	Penang ( <i>Cantor</i> ).	India Museum.
<i>y, z.</i> ♂ ad. sk.	Penang.	E. W. Oates, Esq. [C.]
<i>a', b'.</i> ♂; <i>c', d'.</i> ♀ ad. sk.	Java ( <i>Horsfield</i> ).	India Museum. (Types of <i>N. javanica</i> .)
<i>e'.</i> ♂ ad. sk.	Java.	Gould Collection.
<i>f'.</i> ♂ juv. sk.	E. Java.	A. R. Wallace, Esq. [C.]
<i>g', h', i'.</i> ♂ imm.; <i>k'.</i> Juv. sk.	W. Java ( <i>Buxton</i> ).	F. Nicholson, Esq. [P.]
<i>l'.</i> Ad. in spirit.	Java.	R. B. Sharpe, Esq. [P.]
<i>m'.</i> ♂ ad. sk.	Sumatra ( <i>Raffles</i> ).	India Museum.
<i>n'.</i> ♂ ad. sk.	Sumatra.	A. R. Wallace, Esq. [C.]
<i>o', p'.</i> ♂ ad. sk.	West coast of Sumatra.	Dr. Faber [C.]

*Intermediate forms.*

<i>a.</i> ♂ ad. sk.	Borneo ( <i>Mus. Lugd.</i> ).	Gould Collection.
<i>b, c.</i> ♂ ad. sk.	Borneo.	Rajah Brooke [P.]
<i>d.</i> [♀] ad. sk.	Sarawak.	Henry Everett, Esq. [C.]
<i>e.</i> ♂ ad. sk.	Sarawak.	A. R. Wallace, Esq. [C.]
<i>f.</i> ♂ ad. sk.	Sinunjon, Sarawak ( <i>A. Everett</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.]
<i>g.</i> ♂ ad. sk.	Sandakan.	Dr. A. M'Kinlay [P.]
<i>h, i.</i> ♂ ♀ ad.; <i>k.</i> Juv. sk.	Labuan ( <i>Low</i> ).	R. B. Sharpe, Esq. [P.]

*Eastern Race (A. chlorogaster).*

<i>a, b.</i> ♀ ad. sk.	Palawan.	Prof. J. B. Steere.
<i>c.</i> ♂ ad. sk.	Negros.	Prof. J. B. Steere.
<i>d, e.</i> ♂ ♀ ad. sk.	Celebes.	A. R. Wallace, Esq. [C.].
<i>f, g.</i> ♂; <i>h.</i> ♀ ad. sk.	Menado, N. Celebes.	A. R. Wallace, Esq. [C.].
<i>i, k.</i> ♂ ♀ ad. sk.	Menado.	Gould Collection.
<i>l.</i> ♂ ad. sk.	Macassar ( <i>Wallace</i> ).	Gould Collection.
<i>m.</i> ♂ ad. sk.	Macassar.	A. R. Wallace, Esq. [C.].
<i>n.</i> ♀ ad. sk.	Sula Islands.	A. R. Wallace, Esq. [C.].
<i>o.</i> ♂ ad. sk.	Flores ( <i>Wallace</i> ).	H. Seebohm, Esq. [P.].
<i>p, q.</i> ♂ ♀ ad. sk.	Flores.	A. R. Wallace, Esq. [C.].

12. *Anthothreptes griseigularis.*

*Anthothreptes griseigularis*, *Tweeddale*, *P. Z. S.* 1877, pp. 817, 830, 1878, p. 113.

*Anthreptes griseigularis*, *Shelley*, *Monogr. Nect.* p. 323, pl. 104.

*Male and female.* Like those of the western form of *A. malaccensis*, but the male has the "chin and throat ashy grey with a white reflection; no purple, but only metallic green on the head; under surface of the body, thighs, and under tail-coverts olive, shaded yellow; bill black; feet greenish grey" (*Shelley*).

♂. Culmen 0·62 inch, wing 2·62, tail 1·75, tarsus 0·68.

♀. " 0·62 " " 2·25, " 1·50, " 0·68.

(*Tweeddale*.)

*Hab.* Philippine Islands.

## Family MELIPHAGIDÆ.

Bill variable in length, but always with a prominent culmen, and broadened out at base, curved, almost always with a slight notch; maxilla serrated. Nostrils basal, situated in a large unossified groove, which is quite soft and membranous; either longitudinal and with a well-developed coriaceous operculum, or oval and situated in front of a coriaceous groove; never entirely covered with feathers, generally quite free. Tongue protractile, bifid, each half broken up into numerous stiff horny fibres, so as to form a brush\*. First primary (except in *Zosterops* and *Entomophila*) about half the length of the second, or a little shorter. Wings varying in shape. Tail varying in shape and length, never stiff. Tarsus varying in length, covered with scales anteriorly, which are sometimes fused in old birds. Anterior toes short and much joined together; middle toe the longest; hallux the strongest; anterior claws very short. The pattern of the plumage inclines to green and yellow. Blue never occurs, and red in the *Myzomelinae* only. Metallic colours (purple) confined to a gloss. Parts of the head are frequently bare; and wattles on the ears, cheeks, or the throat are frequently met with.

### Key to the Subfamilies.

- A. Small birds of the size of a Sparrow.  
Bill longer than the rest of the head, very slender and much curved; first primary about half the length of the second. Sexes mostly very different in coloration. . . . . *MYZOMELINÆ*, p. 127.
- B. Bill shorter or equal to the rest of the head; a peculiar ring of short whitish feathers surrounds the eye; first primary either completely absent or very short (except in the brown species); plumage principally green, yellow, and white. Sexes alike in coloration. . . . *ZOSTEROPINÆ*, p. 146.
- C. The other genera of the *Meliphagidæ* constitute the . . . . . *MELIPHAGINÆ*, p. 209.

### Subfamily I. MYZOMELINÆ.

#### Key to the Genera.

- A. Tail about two thirds the length of the wing . . . . . 1. *MYZOMELA*, p. 128.
- B. Tail about equal to the length of the wing . . . . . 2. *ACANTHORHYNCHUS*, p. 144.

\* See H. Gadow, "On the Suctorial Apparatus of the Tenuirostres," Proc. Zool. Soc. 1883, pp. 62-69.

1. MYZOMELA.

Type.

Myzomela, Vigors & Horsfield, Trans. Linn. Soc. 1826,

p. 316 .....

Phylidornis, Lesson (pt.), Traité d'Orn. i. p. 298(1831) M. cardinalis.

Cosmeteira, Reichenb. Handb. spec. Orn. i. p. 283 (1852) M. eques.

Cissomela, Bonaparte, Comptes Rendus, t. xxxviii.

p. 264 (1854) ..... M. nigra.

Bill longer than rest of head, slender and curved. Tail two thirds the length of wing. Principal colours black and red; if present, the yellow colour confined to the underparts. Female generally plain, olive above. Length of wing from 2-2.9 inches.

Range. Austro-Malayan and Polynesian Regions.

Key to the Species.

a. Upper parts black, or black and red.

a'. Head red all round.

a''. All the rest of the plumage black ..... guentheri, p. 129.

b''. Upper parts black and red.

a'''. Middle line of back (or whole back) and rump red.

a<sup>4</sup>. Chest and fore neck red.

a<sup>5</sup>. Abdomen black or blackish brown.

a<sup>6</sup>. Lower breast red ..... rubratra, p. 129.

b<sup>6</sup>. Lower breast black.

a<sup>7</sup>. Middle line of back red .... } cardinalis, p. 130.

b<sup>7</sup>. Whole back red. .... } nigricentris, p. 130.

b<sup>8</sup>. Whole back red. .... pulcherrima, p. 131.

b<sup>5</sup>. Abdomen dingy grey.

c<sup>6</sup>. Wing-coverts with white edgings sanguinolenta, p. 131.

d<sup>6</sup>. Wing-coverts entirely black .. caledonica, p. 132.

c<sup>5</sup>. Abdomen yellowish buff ..... chloroptera, p. 132.

b<sup>4</sup>. Chest black.

d<sup>5</sup>. Breast and abdomen greyish white boiei, p. 133.

e<sup>5</sup>. Breast and abdomen black ..... lifuensis, p. 133.

b'''. Middle line of back black; rump red.

c<sup>4</sup>. Underparts greyish brown ..... erythrocephala, p. 133.

d<sup>4</sup>. Underparts yellowish white ..... } adolphineæ, p. 134.

d<sup>4</sup>. Underparts yellowish white ..... } annabelleæ, p. 134.

b'. Centre of crown red.

c''. Rest of plumage black ..... forbesi, p. 135.

d''. Rump and throat red.

c'''. Rest of underparts white. .... vulnerata, p. 135.

d'''. Fore neck and chest yellow ..... jugularis, p. 136.

c'. Whole crown black.

e''. With red in the plumage.

e'''. Chin, throat, and breast black ..... rosenbergi, p. 137.

f'''. Chin, throat, and breast red ..... chermesina, p. 137.

f'. No red in plumage; only colours black or black and white.

g'''. Abdomen and breast white.

e<sup>4</sup>. Fore neck and rump black ..... nigra, p. 138.

f<sup>4</sup>. Upper tail-coverts and a pectoral crescent black ..... pectoralis, p. 138.



- h'''*. Abdomen and breast black.  
*g<sup>4</sup>*. Under wing-coverts white . . . . . *nigrita*, p. 139.  
*h<sup>4</sup>*. Under wing-coverts black . . . . . *panmelæna*, p. 140.  
*b*. Upper and under parts crimson . . . . . } *cruentata*, p. 140.  
. . . . . } *wakoloensis*, p. 141.  
*c*. Upper and under parts olive- or greyish brown.  
*d'*. With red in the plumage.  
*g''*. Throat and part of fore neck red . . . . . *scateri*, p. 141.  
*h''*. Red gular stripe . . . . . *eques*, p. 141.  
*i''*. No gular stripe; but wings and tail tinged } *simplex*, p. 142.  
with red . . . . . } *rubrobrunnea*, p. 142.  
. . . . . } *rubrotincta*, p. 143.  
*e'*. No red in the plumage . . . . . *cineracea*, p. 143.  
*f'*. Crown only slightly tinged with red . . . . . *obscura*, p. 143.

### 1. *Myzomela guentheri*. (Plate III.)

*Adult male*. Head and adjoining part of neck all round brilliant scarlet; all the rest of the plumage, including the under wing-coverts, black, glossy on the upper parts; inner margin of quills pale buff.

*Adult female*. Anterior half of head all round, including the ear-coverts, scarlet, duller on the upper throat; occiput and rest of upper parts greyish olive; wings and tail blackish brown, externally edged with olive-yellow; underparts dingy yellowish white, strongly washed with dull buff on the chest and flanks; under wing-coverts and inner margin of quills white.

♂. Culmen 0.55 inch, wing 2.1, tail 2.25, tarsus 0.55.

♀. " 0.55 " " 2.0, " 2.1, " 0.54.

*Hab.* New Britain.

*a*. ♂; *b*, *c*. ♀ ad. sk. New Britain, Dec. 1880. Mr. Kleinschmidt [C.].

### 2. *Myzomela rubratra*.

*Cinnyris rubrater*, *Less. Voy. Coq., Zool.* p. 678 (1826); *id. Man. d'Orn.* ii. p. 55 (1828); *Kittlitz, Kupfert. Vög.* pl. 8. fig. 1; *id. Denkw. einer Reise*, i. pp. 364, 381 (1858).

*Myzomela rubratra*, *Bp. C. R. t. xxxviii.* p. 263 (1854); *Hartl. P. Z. S.* 1868, p. 5; *id. & Finsch, P. Z. S.* 1872, p. 94; *Finsch, Journ. Godeffroy Mus.* xii. p. 26; *Forbes, P. Z. S.* 1879, p. 270.

*Myzomela major*, *Bp. C. R. t. xxxviii.* p. 263 (1854).

*Myzomela sanguinolenta* (pt.), *Gray (nec Lath.)*, *Gen. B.* i. p. 118; *Bp. C. A. i.* p. 394.

*Adult male*. Shoulders, wing-coverts and quills, tail, under tail-coverts, lower abdomen, under wing-coverts, and edge of wing blackish brown; all the rest of the body scarlet; preocular region brown; inner margin of quills whitish; bill blackish; feet horn-colour; most of the quills narrowly edged with olive externally.

*Female*. Like the male, but the abdomen, under tail-coverts, and the wing-coverts more olive-brown or greyish brown; hind neck less red than in the male. Culmen 0.7-0.75 inch, wing 2.85, tail 2.1, tarsus 0.85-0.9.

*Young birds* are dark olive-brown above, paler and more greyish

on the underparts, more or less washed with red on the various parts of the body.

*Hab.* Caroline Archipelago.

a. ♂ ad. sk.	Carolines.	Purchased.
b. [♀] ad.; c. Imm. sk.	Pelew Islands.	Mr. Cohen [C.].

### 3. *Myzomela cardinalis*.

Cardinal Creeper, *Lath. Gen. Syn.* i. pt. 2, p. 733, pl. 33. fig. 2 (1782).

*Certhia cardinalis*, *Gm. S. N.* i. p. 472 (1788); *Lath. Ind. Orn.* i. p. 290.

Cardinal Honey-eater, *Lath. Nat. Hist.* iv. p. 199, pl. 71. fig. 2 (1822).

*Myzomela cardinalis*, *Gray, Cat. B. Trop. Isl.* p. 10 (1859); *Tristram, Ibis*, 1876, p. 261; *Ramsay, Proc. Linn. Soc. N. S. W.* iii. p. 337; *Forbes, P. Z. S.* 1879, p. 272.

*Myzomela melanogastra*, *Bp. C. R.* t. xxxviii. p. 263 (1854).

It remains doubtful whether the following references belong to this, or to any real species at all (*cf.* Forbes, *l. c.*):—

Le Kuyameta, *Vieill. Ois. Dor.* ii. p. 92, pl. 58 (1802).

*Certhia cardinalis*, *Vieill. in texte, op. cit.*

*Myzomela pusilla*, *Gray, Cat. B. Trop. Isl.* p. 10 (1859); *Forbes, P. Z. S.* 1879, p. 276.

*Myzomela cardinalis*, pt., *Finsch & Hartl. Orn. Centralpolyn.* p. 57 (note).

*Adult male.* Head and neck all round and upper chest, middle line of back, and upper tail-coverts brilliant scarlet; præocular region and all the rest of upper and under parts, including edge of wing and under wing-coverts, black; abdomen and flanks inclining to brownish black; inner margin of quills whitish; bill and feet black. Culmen 0·8–0·9 inch, wing 2·8, tail 1·8–1·9, tarsus 0·8–0·85.

*Adult female.* Resembles the male in colour.

*Young birds* are olive-brown on the upper parts and dingy greyish yellow on the underparts; head, fore neck, and back more or less strongly washed or tipped with scarlet; under wing-coverts and inner margin of quills white, outer margin olive-yellow.

*Hab.* New Hebrides.

a. ♂ ad. sk.	Erromango.	J. Macgillivray, Esq. [C.].
b, c. ♂ ad. sk.	Erromango, Aug. 1865.	J. Brenchley, Esq. [P.].
d, e. ♂ ♀ ad. sk.	Aneiteum, Aug. 1853	Gould Collection.
	( <i>Macgillivray</i> ).	
f, g. ♂; h. ♀ ad. sk.	Aneiteum.	J. Macgillivray, Esq. [C.].

#### Subspecies a. *Myzomela nigriventris*.

*Myzomela nigriventris*, *Peale, U.S. Expl. Exp.* p. 150, pl. 41. fig. 2 (1848); *Cassin, U.S. Expl. Exp.* p. 175, pl. 12. fig. 1 (1858); *Hartl. & Finsch, Orn. Centralpolyn.* p. 56, pl. 7. figs. 3 & 4; *Layard, Ibis*, 1876, p. 391; *Forbes, P. Z. S.* 1879, p. 271.

*Myzomela rubratra*, *Hartl. (nec Less.)*, *Archiv f. Naturgesch.* 1852, p. 130.

*Myzomela cardinalis*, *Hartl. (nec Gmel.)*, *op. cit.* p. 109.

"*Myzomela arnouxi*, *Verr.*," *Bp. C. R.* t. xxxviii. p. 263 (1854).

*Adult male.* Closely allied to *M. cardinalis*, which it seems to represent in the Samoa Islands. It differs from the latter species merely by the abdomen and breast being deep black without any brownish tinge; the black upper parts are, as a rule, more glossy than they ever seem to be in *M. cardinalis*. Culmen 0.78 inch, wing 2.6, tail 1.75, tarsus 0.75.

*Young birds* are dark greyish brown above; crown of head, upper throat, and upper wing-coverts strongly washed or tipped with scarlet.

*Hab.* Samoa Islands.

<i>a, b.</i> ♂ ad. ; <i>c.</i> Juv. sk.	Samoa Islands.	Rev. S. J. Whitmee [C.].
<i>d.</i> ♂ ad. sk.	Samoa Islands.	Rev. J. B. Stair [C.].
<i>e, f.</i> ♂ ♀ ad. sk.	Samoa Islands.	J. Brenchley, Esq. [P.].

#### 4. *Myzomela pulcherrima*.

*Myzomela pulcherrima*, *Ramsay, Proc. Linn. Soc. N. S. W.* vi. p. 179 (1881), vii. p. 27; *Salvad. Orn. Papuasie*, iii. p. 542.

*Adult male.* Head and neck all round, the whole of the back and upper tail-coverts, chest, and greater part of sides of breast brilliant red; shoulders, wings, and tail brownish black; abdomen, under tail-coverts, flanks, under wing-coverts, and edge of wings sooty blackish brown; inner margin of quills whitish; bill and feet black; iris brown. Culmen 0.77 inch, wing 2.75, tail 1.75, tarsus 0.8.

*Hab.* Ugi, Solomon Islands.

<i>a, b.</i> ♂ ♀ ad. sk.	Island of Ugi.	Lieut. G. E. Richards [C.].
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#### 5. *Myzomela sanguinolenta*.

? Scarlet Creeper, *Lath. Gen. Syn.* i. pt. 2, p. 740 (1782).

? *Certhia rubra*, *Gmel. S. N.* i. p. 479 (1788).

Sanguineous Creeper, *Lath. Gen. Syn. Suppl.* ii. p. 167, pl. 130 (1801).

Cochineal Creeper, *id. l. c.*

Red-rumped Creeper, *id. op. cit.* p. 169.

*Certhia sanguinolenta*, *id. Ind. Orn., Suppl.* p. xxxvii (1801).

*Certhia dibapha*, *id. l. c.*

*Certhia erythropygia*, *id. op. cit.* p. xxxviii.

*Certhia australasie*, *Leach, Zool. Misc.* i. p. 30, pl. 11 (1814)

*Myzomela cardinalis*, *Vig. & Horsf. (nec Gmel. teste Forbes)*, *Trans. Linn. Soc.* xv. p. 316 (1826).

*Myzomela sanguinolenta*, *Cab. Mus. Hein.* i. p. 116 (1850); *Bp. C. A.* i. p. 394; *Gould, B. Austr.* iv. pl. 63; *id. Handb. B. Austr.* i. p. 555; *Diggles, Orn. Austr.* pl.; *Ramsay, Ibis*, 1865, p. 304; *id. Proc. Linn. Soc. N. S. W.* ii. p. 190 (1878); *Forbes, P. Z. S.* 1879, p. 259.

*Adult male.* Head and neck all round, breast, middle line of back, rump, and upper tail-coverts brilliant scarlet; rest of upper parts,

including wings and tail and a præocular spot, black; quills narrowly edged with pale buff; greater and median coverts with conspicuous dingy white edges; sides of breast, flanks, and abdomen dingy yellowish grey, inclining to dull white on the under tail-coverts; under wing-coverts, inner margin of quills, and edge of wing white; some of the tail-feathers likewise edged with white on their inner web; bill and feet black; iris dark brown.

*Adult female.* General colour above greyish brown; wings and tail dark brown; quills externally edged with olive, the wing-coverts with buff; all other parts dull whitish, more or less tinged with buff; under wing-coverts and inner margin of quills white; maxilla blackish brown; mandible pale horn-colour; feet brown. Total length less than 4 inches.

♂. Culmen 0·5–0·55 inch, wing 2·35, tail 1·4–1·5, tarsus 0·55.

♀. „ 0·5 inch, „ 2·15, „ 1·3, „ 0·55.

*Hab.* Australia.

a. ♂ ad. sk.	Cape Upstart.	J. B. Jukes, Esq. [P.].
b. ♂ juv. sk.	Cape Upstart.	J. Macgillivray, Esq. [C.].
c, d. ♂ ♀ ad. sk.	N. S. Wales.	Gould Collection.
e. ♂ ad. sk.	Queensland.	Gould Collection.
f, g, h. ♂ ad. sk.	Queensland ( <i>Cock- erell</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].
i. ♂ ad. sk.	Queensland.	H. Seebohm, Esq. [P.].
k. ♂ imm. sk.	Australia.	Purchased.
l, m. ♂ ♀ ad. sk.	Australia.	J. Gould, Esq.

#### Subspecies a. *Myzomela caledonica*.

*Myzomela caledonica*, *Forbes, P. Z. S.* 1879, p. 260.

*Adult male.* Very similar to *M. sanguinolenta*; but the scapulars and wing-coverts are entirely black, without, or with hardly any, paler edgings; the red extends a little further down on the abdomen, which is pale whitish and buff. Culmen 1·57 inch, wing 2·25, tail 1·5, tarsus 0·63.

*Hab.* New Caledonia to New Hebrides.

a. ♂ ad. sk. Noumea, May 19, 1879. E. L. Layard, Esq. [C.].

#### 6. *Myzomela chloroptera*.

*Myzomela chloroptera*, *Walden, Ann. & Mag. N. H.* 1872, ix. p. 399; *Salvad. Ann. Mus. Civ. Gen.* 1875, vii. p. 662; *Forbes, P. Z. S.* 1879, p. 260, pl. xxiv. fig. 1.

*Adult male.* Resembling *M. sanguinolenta* in general pattern of colour. Wings, with their coverts, and tail brownish black; the scarlet on the underparts not extending down beyond the chest; rest of underparts dull yellowish buff; under wing-coverts and inner margin of quills white; præocular region blackish. Culmen 0·5 inch, wing 2·2, tail 1·5, tarsus 0·50.

*Hab.* Celebes.

7. *Myzomela boiei*.

*Myzomela boiei*, *S. Müller, Verh. Land- en Volkenk.* p. 172 (1839-44); *id. & Schleg. Verh. Zool., Aves*, p. 66, pl. 10, figs. 1 & 2; *Gray, Gen. B., Append.* p. 5; *Bp. C. A. i.* p. 394; *Reichenb. Handb. spec. Orn., Meropinae*, p. 112, pl. 484, figs. 3416-17; *Gray, P. Z. S.* 1860, p. 349; *id. Hand-l. B. i.* p. 154, no. 1994; *Salvad. P. Z. S.* 1878, p. 84; *id. Ann. Mus. Civ. Gen.* xvi. p. 72; *id. Orn. Papuaia*, ii. p. 299.

*Myzomela boiei*, *Forbes, P. Z. S.* 1879, p. 262.

*Adult male.* Head all round, middle line of back, rump, and upper tail-coverts brilliant scarlet; præocular region blackish; rest of upper parts, including tail and wings, sides of neck, and fore neck, uniform black; rest of underparts greyish white; under wing-coverts and inner margin of quills white; bill black; feet horn-colour, with yellowish soles. Total length about 4 inches, culmen 0.5-0.6, wing 2.2, tail 1.5, tarsus 0.65.

*Female.* Above olive-brown, inclining to greyish brown on hind neck and crown; feathers covering the base of the culmen and upper throat washed with dull carmine-red; quills externally edged with olive-yellow; underparts of body greyish white; chest and fore neck strongly washed with grey. Culmen 0.55 inch, wing 2.05, tail 1.4, tarsus 0.65.

*Hab.* Banda Island.

<i>a.</i> ♂ ad. sk.	Banda Island.	A. R. Wallace, Esq. [C.].
<i>b.</i> ♀ ad. sk.	Banda Island.	Voy. of H.M.S. 'Challenger.'

8. *Myzomela lifuensis*.

*Myzomela lifuensis*, *E. L. & L. C. Layard, Ibis*, 1878, p. 258; *Forbes, P. Z. S.* 1879, p. 273.

? *Myzomela erythrocephala*, *Marie, Ibis*, 1877, p. 362.

*Adult male.* Head and part of neck all round, middle line of back, rump, and upper tail-coverts brilliant scarlet; rest of the upper parts black; loreal and præocular regions and rest of underparts sooty black; some of the under wing-coverts mottled with grey and black; inner margin of quills whitish; "bill black; feet and iris very dark brown" (*Layard*). Culmen 0.65 inch, wing 2.2-2.35, tail 1.5, tarsus 0.7.

*Hab.* Loyalty Islands.

<i>a, b.</i> ♂ ad. sk.	Lifu, Loyalty Islands, Aug. 1878.	E. L. Layard, Esq. [C.].
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9. *Myzomela erythrocephala*.

*Myzomela erythrocephala*, *Gould, F. Z. S.* 1839, p. 144; *id. B. Austr.* iv. pl. 64; *Gray, Gen. B.* ii. p. 118; *Bp. C. A. i.* p. 395; *Reichenb. Vög. Neuhol.* no. 50; *id. Handb. spec. Orn., Meropinae*, p. 113, pl. 485, figs. 4323-25; *Gray, P. Z. S.* 1858, p. 173, 1861, p. 434; *id. Cat. B. New Guinea*, p. 23; *Rosenb. Tijdsch. Ned. Ind.* xxv. p. 236; *id. J. f. O.* 1864, p. 122; *Gould, Handb. B. Austr.* i. p. 556; *Diggles, Orn. Austr.* pl.; *Salvad. & d'Albert. Ann. Mus.*

*Civ. Gen.* vii. p. 825, xiv. p. 76; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190, iii. p. 111; *Forbes, P. Z. S.* 1879, p. 262; *Salvad. op. cit.* xvi. p. 72; *id. Orn. Papuasia*, ii. p. 300.  
*Nectarinia erythrocephala, Finsch, Neu-Guinea*, p. 163 (1865).

*Adult male.* Head all round, lower back, rump, and upper tail-coverts brilliant scarlet; a præocular patch and all the rest of the upper parts, tail, wings, and neck all round uniform blackish brown; the rich blackish brown on the chest gradually changes into dull brownish grey; under wing-coverts and inner margin of quills white; edge of wing blackish brown; bill blackish, paler at the base of mandible; feet dark horn-colour. Total length 4 inches, culmen 0·6–0·7, wing 2·4, tail 1·6–1·7, tarsus 0·6.

*Adult female.* Above uniform greyish brown; underparts paler; forehead and throat washed with red; wings externally edged with olive. Culmen 0·62 inch, wing 2·2, tail 1·4, tarsus 0·6.

*Young male.* Resembling the female, but has the upper parts darker brown, inclining sometimes to blackish brown.

*Hab.* Northern Australia to Aru Islands and New Guinea.

a. ♂ ad. sk.	Aru Islands.	A. R. Wallace, Esq. [C.].
b. ♂ imm. sk.	Aru Islands ( <i>Wallace</i> ).	Gould Collection.
c, d, e. ♀ ♀ ad. sk.	Aru Islands ( <i>Cockerell</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].
f, g, h. [♂] imm. sk.	Aru Islands.	F. D. Godman and O. Salvin, Esqrs. [P.].

### 10. *Myzomela adolphinæ*.

*Myzomela adolphinæ, Salvad. Ann. Mus. Civ. Gen.* vii. (1875) p. 976, xvi. p. 72; *Forbes, P. Z. S.* 1879, p. 261, pl. xxiv. fig. 3; *Salvad. Orn. Papuasia*, ii. p. 301.

Seems to represent *M. erythrocephala* on the Arfak Mountains. It differs from the latter species merely in having the mantle and wings slightly tinged with olive, whilst the underparts are not greyish brown, but dingy yellowish white; the distribution of red is the same as in the latter species. Culmen 0·45 inch, wing 2·2, tail 1·5, tarsus 0·5.

*Adult female.* General colour above, including the wing-coverts, olive-brown; wings and tail dark brown, externally edged with olive; underparts dingy yellowish white, slightly tinged with grey on the chest and fore neck; under wing-coverts and inner margin of quills white; feathers covering base of culmen and upper throat washed with dull carmine-red.

*Hab.* Arfak Mountains.

### 11. *Myzomela annabellæ*.

*Myzomela annabellæ, Selater, P. Z. S.* 1883, p. 56.

*Adult male.* Black; head and throat all round and lower back crimson; centre of the belly olive, as well as some very narrow

margins to the quills; under wing-coverts and inner webs of the quills white; bill and feet black. Total length 3·5 inches, wing 2·0, tail 1·3. (*Sclater.*)

*Hab.* Island of Loetoer, Tenimber group.

a. ♂ ad. sk. Loetoer, Tenimber Islands. H. O. Forbes, Esq. [C].  
(Type of species.)

## 12. *Myzomela forbesi.*

*Myzomela forbesi*, *Ramsay, Proc. Linn. Soc. N. S. W.* iv. p. 469 (1880); *Salvad. Ann. Mus. Civ. Gen.* xvi. p. 71; *id. Orn. Papuaasia*, ii. p. 293.

*Adult male.* Centre of crown blood-red; under wing-coverts and inner margin of quills pure white; all the rest of the plumage black, more or less glossy on the upper parts, sooty on the underparts. Culmen 0·74 inch, wing 2·25, tail 1·55, tarsus 0·61.

*Hab.* Woodlark Islands.

a. ♂ ad. sk. Woodlark Islands. Mr. A. Goldie [C].

## 13. *Myzomela vulnerata.*

*Nectarinia (Myzomela) vulnerata*, *S. Müll. Natuurl. Gesch. Land- en Volkenk.* p. 172 (1839-44); *id. op. cit. Zool., Aves*, pl. 10. figs. 3 & 4. *Myzomela vulnerata*, *Bp. C. A. i.* p. 394 (1850); *Forbes, P. Z. S.* 1879, p. 263.

*Adult male.* Centre of crown and occiput, rump and upper tail-coverts, and upper throat blood-red; all the rest of the upper parts, including the wings, tail, forehead, sides of head, and the neck all round sooty brownish black; rest of underparts, including edge of wing, under wing-coverts, and inner margin of quills, white; bill black; feet lead-colour. Culmen 0·5-0·6 inch, wing 2·15-2·3, tail 1·6, tarsus 0·65.

*Female.* Coloured like the male, but less distinct, and slightly smaller in its dimensions.

*Hab.* Timor.

a, b, c. ♂ ad. sk. E. Timor. A. R. Wallace, Esq. [C].  
d. [♂] ad. sk. Timor (*Wallace*). Gould Collection.

## MYZOMELA LAFARGEI.

*Myzomela lafargei*, *Honbr. & Jacq. Voy. Pôle Sud, Zool.* iii. p. 98, pl. 22. fig. 5 (1853); *Forbes, P. Z. S.* 1879, p. 264; *Ramsay, Proc. Linn. Soc. N. S. W.* vii. p. 16.

This species still stands on the single type specimen obtained by the French Expedition to the South Pole in the Solomon Islands. It resembles the immature male of *M. jugularis*, but the red is restricted to the occiput, whilst the upper throat and chin are dull black; lower throat or fore neck blackish, mottled with greenish yellow.

*Hab.* Solomon Islands (?).

14. *Myzomela jugularis*.

*Myzomela jugularis*, Peale, *U.S. Expl. Exped.* p. 151, pl. 41. fig. 2 (1848); Cassin, *U.S. Expl. Exped.* p. 176, pl. 12. fig. 2 (1858); Hartlaub & Finsch, *Orn. Centralpol.* p. 54, pl. 7. figs. 1 & 2; Whitmee, *Ibis*, 1875, p. 447; Layard, *Ibis*, 1876, p. 391; Forbes, *P. Z. S.* 1879, p. 264.

*Myzomela solitaria*, Homb. & Jacq. *Voy. Pôle Sud, Zool.* iii. p. 99, *Atlas*, pl. 22. fig. 6 (1853); Sclater, *P. Z. S.* 1869, p. 124; Ramsay, *Proc. Linn. Soc. N. S. W.* vii. p. 16; *Salvad. Orn. Papuasia*, ii. p. 307 (note).

*Adult male.* Centre of crown and occiput, chin and upper throat, lower rump, and upper tail-coverts brilliant carmine; forehead and sides of head, mantle and back, wings, and tail sooty black; greater and median wing-coverts with small white tips; quills narrowly edged with yellow; lower throat, fore neck, and chest yellow; rest of the underparts of the body yellowish white; under wing-coverts, edge of wing, and inner margin of quills pure white; bill black; feet horn-colour.

*Immature males* have the carmine restricted to the occiput and upper throat, whilst the whole back and mantle are sooty olive-brown.

*Adult female.* All the upper parts uniform sooty olive-brown; wings and tail similar to the male; the carmine is restricted to the chin and upper throat, whilst the rest of the throat is more or less mottled with blackish and dull yellow, the yellow being prevalent on the fore neck and chest; rest of underparts yellowish white.

In the collection of the British Museum are three specimens, sexed as females, and two others not sexed, which agree with the description given above; whilst two other specimens (Nos. 86 and 60 of the 'Challenger' Expedition) are likewise marked as females, but have some of the feathers of the occiput and rump red or at least tinged with that colour. As these two specimens therefore agree with an immature bird (marked male by Macgillivray), I have no doubt that the sex of these two 'Challenger' specimens is wrongly determined.

♂. Culmen 0·6–0·7 inch, wing 2·3–2·4, tail 1·5, tarsus 0·65.

♀. „ 0·65 „ „ 2·1–2·3, „ 1·4, „ 0·64.

*Hab.* Fiji Islands.

a, b. ♂ ♀ ad. sk.	Fiji Islands.	Purchased.
c. ♂ ad. sk.	Ovalau.	E. L. Layard, Esq. [C.].
d. ♀ ad. sk.	Ovalau.	J. Brenchley, Esq. [P.].
e, f. ♂ ad.; g, h. [♂] imm. sk.	Kandavu.	Voy. of H.M.S. 'Challenger.'
i, k. ♂ ♀ ad. sk.	Matuka.	Voy. of H.M.S. 'Challenger.'
l. ♂ imm.; m. ♀ ad. sk.	Matuka, August 1855 (Dr. Rayner).	Voy. of H.M.S. 'Herald.'
n. ♂ ad. sk.	Moala, Sept. 5, 1854 (Dr. Rayner).	Voy. of H.M.S. 'Herald.'
o. [♂] ad. sk.	Taviuni (Liardet).	F. D. Godman and O. Salvin, Esqrs. [P.].
p. ♀ juv.	Molucata.	E. L. Layard, Esq. [C.].



15. *Myzomela rosenbergi*.

*Myzomela rosenbergi*, *Schleg. Ncd. Tijdschr. Dierk.* iv. p. 38 (1871); *Rosenberg, Reist. Geelvink Baai*, p. 138, pl. xvi. fig. 2; *Meyer, Sitzungsber. Akad. Wien*, lxi. p. 211; *Salvad. Ann. Mus. Civ. Gen.* vii. pp. 776, 947, xvi. p. 71; *Forbes, P. Z. S.* 1879, p. 274; *Gould, B. New Guinea*, pt. x. pl. 8; *Rosenb. Malay. Archip.* pp. 553, 586; *Salvad. Orn. Papuasia*, ii. p. 294.

*Adult male*. The whole of the back and upper tail-coverts, neck all round, and the whole chest brilliant scarlet; head all round and all the rest of the body jet-black; inner margin of quills slightly paler. Culmen 0·72 inch, wing 2·45, tail 1·65, tarsus 0·62.

*Adult female*. Rufous-brown, each feather blackish at base with paler shafts; wings and tail blackish brown, the former externally edged with olive; wing-coverts tipped with rufous-brown; breast, flanks, and abdomen fawn-colour; under wing-coverts and inner margin of quills white; across the fore neck and upper part a brilliant scarlet collar; a few feathers of the lower back and rump (and on the forehead?) marked with the same colour; chin and throat dull black. Culmen 0·70 inch, wing 2·25–2·40, tail 1·5–1·6, tarsus 0·61.

The *young male* resembles the female, but has the forehead, breast, rump, and throat uniformly coloured with the rest of the upper parts.

*Hab.* New Guinea.

a. ♂ ad. sk.	New Guinea.	Dr. A. B. Meyer [C.].
b, c. ♀ ad. sk.	Astrolabe Mountains.	Mr. A. Goldie [C.].

16. *Myzomela chermesina*.

*Myzomela chermesina*, *Gray, Gen. B.* i. pl. 38 (1840); *id. Cat. B. Trop. Isl.* p. 11; *Bp. C. A.* i. p. 394; *Gray, P. Z. S.* 1858, p. 190; *id. Cat. B. New Guin.* p. 55; *id. P. Z. S.* 1861, p. 434; *Rosenb. Nat. Tijdschr. Ned. Ind.* xxv. p. 236; *id. J. f. O.* 1864, p. 122; *Gray, Hand-l. B.* i. p. 154, no. 1989; *Rosenb. Malay. Archip.* p. 553; *Forbes, P. Z. S.* 1878, p. 352, 1879, p. 273; *Salvad. Orn. Papuasia*, ii. p. 306 (note).

*Adult male*. The brilliant scarlet colour in this bird is restricted to the following parts:—chin, throat, fore neck, breast, and flanks; on the upper parts, the whole of the upper tail-coverts, rump, and middle of the back. All the other parts are deep black, with a gloss on the upper parts; inner margin of quills whitish; bill black; feet horny brown. Culmen 0·7 inch, wing 3–3·1, tail 2·2, tarsus 0·85.

The sexes are alike in plumage. Young birds are dark greyish brown above, slightly washed with olive, especially on the wings; underparts dull brownish grey; breast and fore neck washed with dull red, which colour is more developed on the rump and upper tail-coverts.

*Hab.* Caroline Islands, New Hebrides, and Rotumah (north of Fiji).

- a, b.* [♂] ad. sk. Rotumah (*Rev. G. Brown*). Voy. of H.M.S. 'Challenger.'
- c.* [♂] ad. sk. Manikollo, New Hebrides. H. Wickham Perry, Esq. [P.].  
Museum Godeffroy.
- d.* ♂ juv. Ponape Island. Purchased. (Type of species.)
- e.* ♂ ad. sk. —? Purchased. (Type of species.)

### 17. *Myzomela nigra*.

*Myzomela nigra*, *Gould, B. Austr.* iv. pl. 66; *Gray, Gen. B.* i. pl. 33. fig. 1; *Bp. C. A.* i. p. 395; *Cab. Mus. Hein.* i. p. 116; *Gould, Handb. B. Austr.* i. p. 558 (*nec Cissomela nigra, Bp. C. R.* 1854, p. 261); *Diggles, Orn. Austr.* pl.; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190; *Forbes, P. Z. S.* 1879, p. 275.

*Adult male.* Head and neck all round, mantle, and central line down the breast black; under wing-coverts, under surface of quills, and the thighs dull black; upper wing-coverts and quills, rest of back, and tail uniform blackish brown; breast and abdomen pure white. Culmen 0·7 inch, wing 2·7, tail 1·6, tarsus 0·53.

*Female and young birds* are dull blackish brown above; underparts dingy white, except the thighs, under wing-coverts, fore neck, and throat, which parts are mottled with dull blackish; inner margin of quills whitish. Wing 2·6 inches, tail 1·5.

*Hab.* Greater part of Australia.

- a.* [♀] ad. sk. Gulf of Carpentaria Gould Collection.  
(*Gilbert*).
- b.* [♂] ad. sk. Australia. J. Gould, Esq. [P.].
- c.* ♂ ad. sk. Australia. Zoological Society.
- d.* [♂] ad.; *e.* Queensland (*Cockerell*). F. D. Godman and O. Salvin, Esqrs.
- Juv. sk.

### 18. *Myzomela pectoralis*.

*Myzomela pectoralis*, *Gould, P. Z. S.* 1840, p. 170; *id. B. Austr.* iv. pl. 65; *id. Handb. B. Austr.* i. p. 557; *Bp. C. A.* i. p. 395; *Diggles, Orn. Austr.* pl.; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190; *Forbes, P. Z. S.* 1879, p. 275.  
*Cissomela nigra, Bp. (nec Gould), C. R.* xxxviii. p. 265 (1854).

*Adult male.* Upper parts of head, wings and wing-coverts, mantle, back, tail, and a narrow crescent across the chest black; secondary quills and tail-feathers edged with white; rump, upper tail-coverts, and all the rest of the underparts, including the axillaries, ear-coverts, and sides of neck, pure white; under wing-coverts, edge of wing, and inner margin of quills black; bill and feet black.

*Females and immature males* are coloured like the male, but have the mantle mottled with black and buff. Culmen 0·65 inch, wing 2·5–2·7, tail 1·8, tarsus 0·57.

*Hab.* North Australia.

- a.* [♀] ad. sk. North Australia. Purchased.
- b.* [♀] ad. sk. Queensland (*Cockerell*). F. D. Godman and O. Salvin, Esqrs. [P.].
- c.* Juv. sk. Gulf of Carpentaria (*Gilbert*). Gould Collection.

19. *Myzomela nigrita*.

*Myzomela nigrita*, Gray, *P. Z. S.* 1858, p. 173; *id. Cat. B. New Guin.* pp. 23, 55; *id. P. Z. S.* 1859, p. 115, 1861, p. 434; *Rosenb. J. f. O.* 1864, p. 122; *id. Nat. Tijdschr. Ned. Ind.* xxv. p. 237; *Salvad. P. Z. S.* 1878, p. 97; *Forbes, P. Z. S.* 1879, p. 265; *Salvad. & d'Albertis, Ann. Mus. Civ. Gen.* xiv. p. 75; *Ramsay, Proc. Linn. Soc. N. S. W.* iv. p. 100; *Rosenb. Malay. Arch.* p. 553; *Salvad. Ann. Mus. Civ. Gen.* xvi. p. 71; *id. Orn. Papuasias*, ii. p. 291.

*Nectarinia nigri*, Finsch, *Neu-Guin.* p. 163.

*Myzomela erythrocephala*, Meyer (*nec Gould*), *Sitzungsber. Akad. Wien*, lxx. p. 204 (1874).

*Myzomela meyeri*, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 947 (1875).

*Myzomela pluto*, *Salvad. in Forbes, P. Z. S.* 1879, p. 266.

*Adult male.* All the upper and under parts are uniform jet-black, with the exception of the under wing-coverts, axillaries, and inner margin of quills, which are pure white; bill black; feet dark horn-colour.

*Female.* Upper parts uniform greyish brown; underparts of body paler; throat, cheeks, and forehead strongly washed with dull carmine; under wing-coverts and inner margin of quills pure white; wings and tail externally washed with dull olive.

*Immature males* are dull black above, mottled dark grey and black on the underparts of the body, retaining the dull carmine on the forehead and especially on the throat.

These birds do not seem to be subject to much variation in size, as will be seen from the following measurements. Culmen 0·65–0·7 inch, tarsus 0·52–0·6. Specimens with the wing 2·5–2·7 inches in length, from Jobi Island and from Miosnom (*cf. Forbes, P. Z. S.* 1879, p. 266; "*M. pluto*," *Salvadori in litteris*), seem to me to belong to *M. pammelaena*.

	Wing.	Tail.
	in.	in.
♂. Dorey .....	2·25	1·6
Dorey .....	2·25	1·6
Aru .....	2·25	1·6
Aru .....	2·3	1·62
Aru .....	2·25	1·5
Aru .....	2·3	1·62
Aru (Wokau) .....	2·15	1·5
Aru .....	2·15	1·52
Pt. Moresby .....	2·3	1·62
East Cape .....	2·3	1·6
♀. Aru .....	2·0	1·4
Aru .....	2·0	1·5
East Cape (New Guinea) ....	2·2	1·42

*Hab.* Western and Southern New Guinea and Aru Islands.

<i>a, b.</i> ♂; <i>c, d.</i> ♀ ad. sk.	Aru Islands.	A. R. Wallace, Esq. [C.].
<i>e.</i> ♂ ad. sk.	Aru Islands ( <i>Wallace</i> ).	Gould Collection.
<i>f, g.</i> ♂ ad. sk.; <i>h.</i> ♂ imm. sk.	Aru Islands ( <i>Cockerell</i> ).	F. D. Godman and O. Salvin, Esqrs.
<i>i.</i> ♂ ad. sk.	Wokau, Aru Islands.	Voy. H.M.S. 'Challenger.'
<i>k, l.</i> ♂ ad. sk.	Dorey.	A. R. Wallace, Esq. [C.].

<i>m.</i> ♂ ad. sk.	Near Port Moresby.	Mr. A. Goldie [C.].
<i>n, o.</i> ♂ ad.; <i>p.</i>	East Cape, S.E. New	Mr. C. Hunstein [C.].
♂ imm. sk.	Guinea.	

## 20. *Myzomela pammelæna*.

*Myzomela pammelæna*, *Scl. P. Z. S.* 1877, p. 553; *Forbes, ibid.* 1879, p. 267; *Tristram, Ibis*, 1879, p. 439; *Ramsay, Proc. Linn. Soc. N. S. W.* vii. p. 27; *Salvad. Ibis*, 1880, p. 130; *Tristram, Ibis*, 1880, p. 246; *Salvad. Ann. Mus. Civ. Gen.* xvi. p. 71; *id. Orn. Papuaasia*, ii. p. 293.

*Myzomela tristrami*, *Ramsay, op. cit.* p. 27 (1882).

Like *M. nigrita*, but larger, and having most of the under wing-coverts and the axillaries black; rest of under wing-coverts and inner margin of quills greyish or blackish.

*Immature* and *young* birds have the under wing-coverts and the inner margin of the quills still white; bill and feet black.

Adult ♂. Culmen 0·8 inch, wing 2·9, tail 2·0, tarsus 0·72.

Immature ♀. „ 0·62 „ „ 2·55, „ 1·5, „ 0·68.

*Hab.* North coast of New Guinea, including the adjacent islands, Admiralty Islands, and San Christoval.

*Obs.* 1. One specimen from the Solomon Islands has most of the under wing-coverts and axillaries black; some of them, however, are white, as well as the inner margin of the remiges. In its dimensions it is likewise intermediate between *M. pammelæna* and *M. nigrita*. This and the next specimen might be looked upon as an eastern, larger, and somewhat darker race of *M. nigrita*. Wing 2·45, tail 1·65, tarsus 0·68.

*Obs.* 2. Another specimen, from San Christoval, marked male and obtained by Macgillivray in January 1855, agrees in coloration and dimensions with *M. pammelæna*, but the whole of the upper and under mandibles are yellow except the terminal third, which is brown. Culmen 0·83 inch, wing 2·65, tail 1·7, tarsus 0·75.

<i>a.</i> ♂ ad.; <i>b.</i> Imm. sk.	Admiralty Islands.	Voy. H.M.S. 'Challenger.'
		(Type of species.)
<i>c.</i> ♂ ad. sk.	San Christoval, Jan. 8, 1855 ( <i>J. Macgillivray</i> ).	Voy. H.M.S. 'Herald.'
<i>d.</i> ♀ ad. sk.	Makira Harbour, San Christoval, Aug. 1878.	Lieut. G. E. Richards [C.].

## 21. *Myzomela cruentata*.

*Myzomela cruentata*, *Meyer, Sitzungsber. Ak. Wien*, lxx. p. 202 (1874); *Beccari, Ann. Mus. Civ. Gen.* vii. p. 708; *Gould, B. New Guin.* pt. v. pl.; *Forbes, P. Z. S.* 1879, p. 269; *Salvad. Ann. Mus. Civ. Gen.* xvi. p. 72; *id. Orn. Papuaasia*, ii. p. 296.

*Myzomela coccinea*, *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 106 (1877); *Salvad. Ann. Mus. Civ. Gen.* xvi. p. 72; *id. Orn. Papuaasia*, ii. p. 296.

*Myzomela erythrina*, *Ramsay, op. cit.* ii. p. 107 (1877); *Scl. P. Z. S.* 1879, p. 449; *Salvad. Ann. Mus. Civ. Gen.* xvi. p. 72; *id. Orn. Papuaasia*, ii. p. 297.

*Adult male.* General colour of the upper and under parts of the

body brilliant carmine-red; crown and sides of head, wings, wing-coverts, and tail dark brown, but very strongly washed with the carmine of the back; under wing-coverts pale brown; inner margin of quills greyish; bill and feet black.

*Young* birds and perhaps also the female are of a brownish ground-colour, but everywhere strongly washed with dull carmine.

Adult ♂. Culmen 0·62 inch, wing 2·4, tail 1·75, tarsus 0·59.

Young or female (?). Wing 2·2 inches, tail 1·6, tarsus 0·55.

*Hab.* New Guinea, New Ireland, and New Britain.

*a.* [♀] ad. sk. New Britain (Sept. 1878). Rev. G. Brown [C.]  
*b, c.* [♂ ♀ ad.] New Britain. Mr. Kleinschmidt [C.]

## 22. *Myzomela wakoloensis*.

*Myzomela wakoloensis*, *H. O. Forbes, P. Z. S.* 1883, p. 116.

*Adult male.* Entirely scarlet, the bases of the feathers being black; the wings, the tail, and the præocular spot are black; the upper wing-coverts are black, with a scarlet band on the outer webs nearly in the middle, but not extending to the extremity of the feather; the inner margins of the remiges are white; the irides are rich brown; the edges of the mandible yellow; tongue yellow; feet yellowish green; soles yellow. (*H. O. Forbes.*)

*Hab.* Lake Wokolo, island of Bourou.

*a, b.* ♂ ♀ ad.; *c.* ♂ Lake Wakolo, Bourou. H. O. Forbes, Esq. [P.]  
 imm. sk. (Types of species.)

## 23. *Myzomela sclateri*.

*Myzomela sclateri*, *Forbes, P. Z. S.* 1879, p. 265, pl. xxv. fig. 2; *Sclat. op. cit.* p. 448; *Reichen. § Schalow, J. f. O.* 1880, p. 198; *Salvad. Ann. Mus. Civ. Gen.* xvi. p. 72 (1880); *id. Orn. Papuasias*, ii. p. 298; *Gould, B. New Guinea*, pt. xii.

*Adult male.* All the upper parts and sides of the head uniform sooty olive-brown; wing-coverts and remiges externally edged with dull olive-yellow; chin, throat, and the whole fore neck brilliant carmine; rest of underparts of the body dull whitish yellow, strongly washed with dull grey on the chest and sides of breast; under wing-coverts and inner margin of quills pure white.

*Female.* Resembles the male, but without the carmine on the fore neck, only the upper throat being slightly washed with dull carmine.

♂. Culmen 0·65 inch, wing 2·55, tail 1·75, tarsus 0·68.

♀. " 0·6 " " 2·35, " 1·6, " 0·65.

*Hab.* New Britain.

*a.* ♂ ad. sk. Palakuru Island, off New Britain. Rev. G. Brown [C.]  
 (Type of species.)  
*b, c.* ♂ ♀ ad. sk. Palakuru Island. Rev. G. Brown [C.]

## 24. *Myzomela eques*.

*Cinnyris eques*, *Less. Voy. Coq.* p. 679, pl. 31. fig. 1 (1826); *id. Man. d'Orn.* ii. p. 45.

*Phylidornis eques*, *Less. Traité d'Orn.* p. 299 (1831); *id. Compl. de Buffon, Ois.* p. 592.

*Nectarinia eques*, *Müll. & Schleg. Natuurl. Gesch. Zool., Aves*, p. 62 (1839-44); *Jard. Nat. Libr., Sun-birds*, p. 273 (1843); *Gray, Gen. B.* ii. p. 98; *Scl. Proc. Linn. Soc.* ii. p. 157 (1858); *Gray, P. Z. S.* 1858, p. 190, 1859, p. 155, 1861, p. 433; *id. Cat. B. New Guinea*, pp. 22, 55; *Rosenb. Nat. Tijdsch. Ned. Ind.* xxv. p. 237; *id. J. f. O.* 1864, p. 123; *Finsch, Neu-Guinea*, p. 163; *Rosenb. Malay. Archip.* pp. 322, 553.

*Cosmeteira eques*, *Meyer, Sitzungsber. Wien. Akad.* lxx. pp. 215, 217 (1874).

*Cosmeteira minima*, *Walden, Ibis*, 1870, p. 50 (female).

*Myzomela eques*, *Forbes, P. Z. S.* 1879, p. 267; *Salvad. Orn. Papuaasia*, ii. p. 301.

*Adult male.* A broad streak along the middle line of the throat brilliant carmine; all the rest of the plumage uniform ashy brown, slightly paler and more inclining to dull buff on the underparts; under wing-coverts and inner margin of quills dull white. Bill and feet horny black.

The sexes are alike in plumage, but the females are considerably smaller than the males.

♂. Culmen 0·8-0·9 inch, wing 2·6-2·9, tail 2·0-2·2, tarsus 0·7.

♀. " 0·7 " " 2·35, " 1·75, " 0·65.

*Hab.* New Guinea, Dorey, and Mysol.

<i>a, b.</i> ♂ ♀ ad. sk.	Dorey.	A. R. Wallace, Esq. [C.].
<i>c.</i> ♂ ad. sk.	Astrolabe Mountains, S.E. New Guinea.	Mr. A. Goldie [C.].
<i>d.</i> ♂ ad. sk.	Waigiou.	A. R. Wallace, Esq. [C.].
<i>e, f.</i> ♂; <i>g.</i> ♀ ad. sk.	Mysol.	A. R. Wallace, Esq. [C.].
<i>h.</i> ♀ ad. sk.	Mysol (?)	Gould Collection.

## 25. *Myzomela simplex*.

*Myzomela simplex*, *Gray, P. Z. S.* 1860, p. 349; *id. Hand-l. B. i.* p. 154, no. 1987; *Forbes, op. cit.* 1879, p. 268; *Salvad. Ann. Mus. Civ. Gen.* xvi. p. 73; *id. Orn. Papuaasia*, ii. p. 304.

*Nectarinia simplex*, *Finsch, Neu-Guinea*, p. 163 (1865).

*Promerops simplex*, *Gray, Hand-l. B. i.* p. 110, no. 1363 (1869).

*Adult male and female.* All the upper parts uniform greyish brown; outer edge of the remiges and of the tail-feathers slightly washed with dull carmine; underparts pale greyish brown; under wing-coverts and inner margin of quills whitish; bill and feet horn-colour. Culmen 0·65 inch, wing 2·25-2·4, tail 2·7, tarsus 0·65.

*Hab.* Halmahera group of Molucca Islands.

<i>a, b.</i> ♂ ♀ ad. sk.	Batchian.	A. R. Wallace, Esq. [C.]. (Types of species.)
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### Subspecies *a.* *Myzomela rubrobrunnea*.

*Myzomela rubrobrunnea*, *Meyer, Sitzungsber. Akad. Wien*, lxx. p. 203 (1874); *Forbes, P. Z. S.* 1879, p. 269; *Salvad. Ann. Mus. Civ. Gen.* xvi. p. 73; *id. Orn. Papuaasia*, ii. p. 305.

Like *M. simplex* in coloration, but the dull carmine colour is slightly more developed on the wing and tail and likewise extends over the wing-coverts and most feathers of the lower back and rump; the feathers of the head in some specimens more or less edged with dull vinous. Wing 2·4 inches, tail 1·8.

*Female.* Resembling the male, but slightly more dull-coloured and a little smaller in its dimensions.

*Hab.* Island of Misori in the Bay of Geelvink.

### Subspecies $\beta$ . *Myzomela rubrotincta*.

*Myzomela rubrotincta*, *Salvad. Ann. Mus. Civ. Gen.* xii. p. 344 (1878), xvi. p. 73; *Forbes, P. Z. S.* 1879, p. 269; *Salvad. Orn. Papuasia*, ii. p. 305.

Specimens from Obi Island are somewhat intermediate between *M. simplex* and *M. rubrobrunnea*. Wings, tail, and back washed with dull carmine; the rich colouring on the breast, abdomen, and under tail-coverts is much less distinct. Wing 2·65 inches, tail 1·9, tarsus 0·8. (*Salvadori*.)

### 26. *Myzomela cineracea*.

*Myzomela cineracea*, *Scl. P. Z. S.* 1879, p. 448, pl. 37, fig. 1, 1880, p. 65; *Salvad. Ann. Mus. Civ. Gen.* xvi. p. 73; *id. Orn. Papuasia*, ii. p. 304; *id. Atti R. Accad. Sci. Torino*, xvi. p. 624 (1881); *Reichen. & Schalow, J. f. O.* 1880, p. 197; *Gould, B. New Guin.* pt. xii.

*Adult male.* General colour above uniformly dark brownish grey; underparts paler; under wing-coverts and inner margin of quills white. Bill and feet black.

The second specimen in the British Museum is marked *female*. It is considerably smaller than the male, and has the feathers of the upper throat and chin faintly washed with dull carmine.

♂. Culmen 1·0 inch, wing 2·9, tail 2·3, tarsus 0·78.

♀. „ „ 0·95 „ „ 2·5, „ 2·0, „ 0·72.

*Hab.* New Britain.

a, b. ♂ ♀ ad. sk. New Britain.

Rev. G. Brown [C.].

c. ♀ ad. sk. New Britain (*Kleinschmidt*).

(Types of species.)  
Museum Godeffroy.

### 27. *Myzomela obscura*.

*Myzomela obscura*, *Gould, P. Z. S.* 1842, p. 136; *id. B. Austr.* pl. 67; *Gray, Gen. B.* i. p. 118; *Bp. C. A.* i. p. 395; *Reichenb. Vög. Neuholl.* p. 351; *id. Handb. spec. Orn.* i. p. 115, pl. 486, figs. 3435-36; *Bp. C. R.* xxxviii. p. 264; *Gould, Handb. B. Austr.* i. p. 559; *Diggles, Orn. Austral.* pl.; *Salvad. Ann. Mus. Civ. Gen.* ix. p. 32, xii. p. 334, xvi. p. 73; *Sharpe, Proc. Linn. Soc.* xiii. p. 496; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190, iii. p. 110, iv. p. 100; *Salvad. P. Z. S.* 1878, p. 125; *Forbes, P. Z. S.* 1879, p. 268; *Salvad. Orn. Papuasia*, ii. p. 303.

*Ptilotis fumata*, *S. Müll. in Mus. Lugd. (teste Salvad.)*; *Bp. C. A.* i. p. 392; *Selat. Proc. Linn. Soc.* ii. p. 157; *Gray, P. Z. S.* 1858,

p. 190; *id. Cat. B. New Guin.* p. 24; *id. P. Z. S.* 1861, p. 434; *Rosenb. Nat. Tijdschr. Ned. Ind.* xxv. p. 236; *id. J. f. O.* 1864, p. 122; *Finsch, Neu-Guin.* p. 164; *Gray, Hand-l. B.* i. p. 157, no. 2042; *Rosenb. Malay. Archip.* p. 553.  
*Meliphaga concolor*, *Temm. Mus. Lugd. (teste Salvad.)*.

*Adult male.* All the upper parts uniformly greyish brown; underparts inclining to fulvous or reddish brown; outer webs of remiges with very narrow whitish edges, giving the wing, when folded, a whitish appearance; under wing-coverts and tail-coverts and inner margin of quills pale fulvous.

The sexes are alike in plumage; some specimens have the forehead and upper throat very faintly, or just perceptibly, washed with vinous or dull carmine.

Culmen 0.7-0.85 inch, wing 2.4-2.8, tail 2-2.3, tarsus 0.6-0.7.

*Hab.* North Australia and opposite parts of New Guinea.

a. ♂ ad. st.	North Australia.	Purchased.
b, c. ♂ ad. sk.	North Australia.	Gould Collection.
d. [♀] ad. sk.	North Australia.	Purchased.
e, f. Ad. sk.	Port Darwin.	Gould Collection.
g. [♂] ad. sk.	Port Essington.	Dr. Sibbald [P.].
h, i. ♂; k. ♀ ad. sk.	Cape York.	F. D. Godman and O. Salvin, Esqrs. [P.].
l. ♂ ad. sk.	Cape York.	Voy. H.M.S. 'Challenger.'
m. ♂ ad. sk.	Blund's Bay, N.W. Australia.	J. R. Eelsey, Esq. [P.].
n, o. ♂; p. ♀ ad. sk.	Thursday Island, Torres Straits ( <i>Dr. Coppinger</i> ).	Voy. H.M.S. 'Alert.'
q. [♂] ad. sk.	East Cape, S.E. New Guinea.	Mr. Hunstein [C.].

## 2. ACANTHORHYNCHUS.

Type.

*Acanthorhynchus*, *Gould, P. Z. S.* 1837, p. 24. . . . . *A. tenuirostris*.  
*Leptoglossus*, *Swainson, Classif. of Birds*, ii. p. 327 (1837).

Bill very long, slender, and curved. Tail square, equal to wings in length. Pattern of colour totally different from that of *Myzomela*, to which genus it otherwise is closely related. Length of wing 2.4-2.8 inches.



Bill of *Acanthorhynchus superciliosus*.

*Range.* Australia.

### 1. *Acanthorhynchus tenuirostris*.

*Certhia tenuirostris*, *Lath. Ind. Orn. Suppl.* p. xxxvi.

Le Cap noir, *Vieill. Ois. Dor.* ii. p. 94, pl. 60.

Slender-billed Honey-eater, *Lath. Gen. Hist.* iv. p. 194, pl. 62.



- Slender-billed Creeper, *Lath. Gen. Syn. Suppl.* ii. p. 165, pl. 129.  
*Meliphaga tenuirostris*, *Vig. & Horsf. Trans. Linn. Soc.* xv. p. 317.  
*Acanthorhynchus tenuirostris*, *Gould, Syn. B. Austr.* pt. ii.; *id. B. Austr.* iv. pl. 61; *id. Handb. B. Austr.* i. p. 551; *Cab. Mus. Hein.* i. p. 116; *Bp. C. A.* i. p. 394; *Diggles, Orn. Austr.* pl.; *Gray, Gen. B.* i. pl. 38. fig. 3; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190.  
*Acanthorhynchus dubius?*, *Gould, P. Z. S.* 1837, p. 25; *Bp. C. A.* i. p. 394.  
*Leptoglossus cucullatus*, *Swains. Classif. B.* ii. p. 327.

*Adult male.* Crown of head black with a slight greenish gloss; præocular region, ear-coverts, and a crescent on the sides of the neck and chest bronzy black; mantle reddish brown, inclining to chestnut on the hind neck, and passing through olive-grey into bluish grey on the rump, upper tail-coverts, wing-coverts, and the innermost secondaries; rest of wing and the six central tail-feathers black, the two outer pairs of the latter with large white terminal tips; under wing-coverts and inner margin of quills white; cheeks, fore neck, and centre of upper chest white, with a dark reddish-brown patch on the centre of the throat; breast, flanks, abdomen, and under tail-coverts reddish fawn-coloured; "bill black; feet reddish brown; iris red" (*Gould*).

*Females* resemble the males in coloration, but have the crown dark grey, more or less tinged with olive.

*Young* birds are without the black crescent, having the fore neck and chest dingy buffish white.

♂. Culmen 1·2 inch, wing 2·4–2·8, tail 2·2–2·5, tarsus 0·68–0·73.

♀. Culmen 0·9 inch, wing 2·4, tail 2·2, tarsus 0·66.

*Hab.* Eastern half of Australia and Tasmania.

*Obs.* Tasmanian specimens are generally somewhat brighter-coloured on the underparts.

<i>a, b.</i> ♂; <i>c.</i> ♀ ad.;	New South Wales.	J. Gould, Esq. [C.].
<i>d.</i> Juv. sk.		
<i>e, f.</i> ♂ ♀ ad. sk.	New South Wales.	Gould Collection.
<i>g, h.</i> ♂ ♀ ad. sk.	Australia.	R. Butler, Esq. [C.].
<i>i.</i> ♂ ad. sk.	Moreton Bay.	Gould Collection.
<i>k.</i> ♂ ad. sk.	South Australia.	Gould Collection.
<i>l.</i> ♂; <i>m, n.</i> ♀ ad. sk.	North Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>o.</i> ♂ ad. st.	Tasmania.	Ronald Gunn, Esq. [P.].

## 2. *Acanthorhynchus superciliosus.*

- Acanthorhynchus superciliosus*, *Gould, P. Z. S.* 1837, p. 24; *id. B. Austr.* iv. pl. 62; *id. Handb. B. Austr.* i. p. 553; *Cab. Mus. Hein.* i. p. 116; *Bp. C. A.* i. p. 394; *Diggles, Orn. Austr.* pl.; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190.

*Adult male.* Entire crown of head, mantle, back, and upper tail- and wing-coverts greyish olive-brown; wings and six centre tail-feathers blackish brown; the three outer pairs of tail-feathers with large white subterminal patches; a streak behind the eye and

bove the ear-coverts, chin and cheeks, and a finely developed crescent across the chest white; throat and neck all round chestnut-red: breast, abdomen, flanks, and under tail-coverts pale buff, this colour being separated from the white crescent by another one of brownish black; under wing-coverts and inner margin of quills whitish. Culmen 0·9–1 inch, wing 2·5, tail 2·5, tarsus 0·85.

*Hab.* Western and South-western Australia.

<i>a.</i> ♂ ad.;	<i>b.</i> Juv. sk.	S. Australia.	Sir George Grey [P.].
<i>c.</i> ♂ ad. sk.		King George's Sound, April 1841.	J. Gould, Esq. [C.].
<i>d.</i> ♂ ad. sk.		King George's Sound, April 1841.	Gould Collection.
<i>e, f.</i> ♂ ♀ ad. sk.		Perth, W. Australia.	J. Gould, Esq. [C.].

## Subfamily II. ZOSTEROPINÆ.

### *Key to the Genera.*

- |  |                             |
|--|-----------------------------|
| <i>a.</i> First primary extremely short or wanting . . .   | 1. ZOSTEROPS, p. 146.       |
| <i>b.</i> First primary about one fourth the length of the second; tail slightly emarginated; bill shorter than the rest of the head . . . | 2. MELITHREPTES, [p. 204.   |
| <i>c.</i> First primary about one third to one half the length of the second; bill shorter than head and very straight; tail square . . .  | 3. PLECTORHAMPHUS, [p. 208. |

### 1. ZOSTEROPS\*.

	Type.
Zosterops, <i>Fig. &amp; Horsf. Trans. Linn. Soc. xv. p. 235</i> (1827) . . . . .	<i>Z. cærulescens.</i>
Speirops, <i>Reichenb. Handb., Merop. p. 93</i> (1851) . . . . .	<i>Z. lugubris.</i>
Malacirops, <i>Bp. C. R. xxxviii. p. 264</i> (1854) . . . . .	<i>Z. borbonica.</i>
Cyclopterops, <i>Bp. loc. cit. p. 264</i> . . . . .	<i>Z. chloronota.</i>
Oreosterops, <i>Bp. loc. cit. p. 264</i> . . . . .	<i>Z. fallax.</i>
Parinia, <i>Hartl. Orn. West-Afr. p. 71</i> (1857) . . . . .	<i>Z. leucophæa.</i>
Heleia, <i>Hartl. J. f. O. 1865, p. 26</i> . . . . .	<i>Z. muelleri.</i>
Zosteropsisylva, <i>Pr. Würt., teste Heugl. J. f. O. 1867, p. 295</i> . . . . .	<i>Z. senegalensis.</i>
Tephras, <i>Hartl. P. Z. S. 1868, p. 6</i> . . . . .	<i>Z. finschii.</i>

\* The genus *Zosterops* has been described for this volume by Mr. R. Bowdler Sharpe.

As the following species have not been seen by the above-named author, he has not been able to determine them from the descriptions:—

#### ZOSTEROPS FUSCA.

*Zosterops fusca*, *Pernst. J. f. O. 1864, p. 406; Finsch. J. f. O. 1866, p. 139; Gray. Hand-l. B. i. p. 163, no. 2139* (1869); *Rosenb. Malay. Archip. p. 586* (1879); *Salvad. Ann. Mus. Civic. Genov. xvi. p. 80* (1880); *id. Orn. Papuaasia, ii. p. 363* (1881).

Dusky above, with a greyish-olive tinge; throat and eye-ring white; upper breast olive dusky, below whitish; bill dusky; feet bluish grey; iris rufescent

Bill of about the same length as the rest of the head, broadened at base, straight. First primary extremely short, sometimes suppressed altogether; second primary very long; tip of wing formed by third and fourth primaries; secondaries three fourths, tail square and two thirds, of the length of the wing. Tarsus covered with a few scales in front. Pattern of colour very characteristic, as it is always composed of olive and yellow as the principal colours; underparts frequently whitish, washed with grey and fawn-colour; a ring of small white feathers surrounds the eye in most species. Sexes alike in plumage. Length of wing from 1.95 to 2.8 inches.

The genus *Zosterops* has been divided into several genera; but after reviewing the mass of species of which it is composed, I believe that it is impossible to separate them by definite characters. The most characteristic feature of a *Zosterops* (ζωστῆρ, girdle, and ὠψ, eye) is no doubt the conspicuous ring of feathers round the eye; but there are many species, perfectly typical in other respects, which want this character. The length of the bill, which is again a strong feature in a certain group of Australian species, is not an absolute character for generic division, and would separate closely allied species; nor is the uniform coloration of some of the species to be reckoned as indicating more than a sectional or subgeneric group.

*Range.* All over Africa south of the Sahara. Madagascar and the Comoro Islands; entire Indian peninsula and Ceylon; Burmese countries; the whole of China, extending into Amoor Land; Japan; Formosa; Hainan; Malay peninsula; all the Indo-Malayan islands; Moluccas; New Guinea and adjacent Papuan islands; throughout the islands of the Pacific Ocean (with a few exceptions); Australia, with Tasmania, New Zealand, and the Chatham Islands.

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in adult birds, dusky yellowish in the young. Bill 0.4 inch, wing 1.75, tail 1.5, tarsus 0.6. (Cf. *Salvadori*.)

*Hab.* Waigiou (*Bernstein*).

#### ZOSTEROPS RUFILATA.

*Zosterops rufilata*, *Hartl. J. f. O.* 1865, p. 29; *Gray, Hand-l. B. i.* p. 164, no. 2163.

Above pale greenish; throat, under tail-coverts, and thighs yellow; breast ashy; abdomen pale brownish; quills and tail-feathers blackish, edged with the same colour as the back; forehead, scapulars, bend of the wing on the inside, and inner margins of inner secondaries conspicuously rufescent; ring round the eye snow-white; rump paler; bill very straight and sharp and *Ægithalus*-like, and the feet pale. Total length 4" 3", bill from forehead 5", wing 2" 1", tail 1" 7", tarsus 8". (*Hartlaub*.)

*Hab.* Unknown.

#### ZOSTEROPS OBSCURA.

*Zosterops* sp., *Gray, Gen. B. i.* p. 198 (1848).

*Zosterops* obscure, *Hombr. & Jacq. Voy. Pôle Sud, Ois.* pl. 20. fig. 6 (1842-53).

*Zosterops obscurus*, *Jacq. & Pucher. Voy. Pôle Sud*, iii. p. 97 (1853).

*Zosterops obscura*, *Hartl. J. f. O.* 1865, p. 30; *Gray, Hand-l. B. i.* p. 163, no. 2143 (1869).

From a specimen in spirit, in bad condition. Locality unknown.

## Key to the Species\*.

- A. Mantle not of the same colour as the head; the crown olive-green or olive-yellow, the back brown or grey; under surface not uniform, either the throat or under tail-coverts different from the back . . . . . ZOSTEROPS.
- a. Throat white, not yellow, sometimes with a slight tinge of olive.
- a'. Smaller: wing not exceeding 2.5 inches; mantle bluish grey; ear-coverts olive-green like the head . . . . . *cærulescens*, p. 152.
- b'. Larger: wing 2.95 inches; mantle and back olive-brown; ear-coverts ashy grey, contrasting with olive-greenish head. . . . . *albigularis*, p. 154.
- b. Throat bright yellow or dull olive-yellow.
- c'. Mantle olive-brown; centre of breast and abdomen yellow. . . . . *tenuirostris*, p. 154.
- d'. Mantle bluish or ashy grey.
- a''. Throat olive-yellow, contrasting with the breast; abdomen white tinged with yellow.
- a'''. Larger: wing 2.75 inches, bill 0.85 . . . . . *strenua*, p. 155.
- b'''. Smaller: wing not exceeding 2.6 inches; culmen 0.5 to 0.6 inch.
- a<sup>4</sup>. Under tail-coverts yellow or tinged with yellow . . . . . *westernensis*, p. 155.
- b<sup>4</sup>. Under tail-coverts white. . . . . *vatensis*, p. 158.
- b''. Throat dull olive, fading off into the grey of the breast; abdomen dull ashy whitish . . . . . *inornata*, p. 159.
- B. Under surface particoloured; either the throat or the under tail-coverts yellow, different in colour from the breast; upper surface entirely uniform, the mantle like the back; head and rump sometimes a little brighter, but of the same tint as the back.
- c. Forehead as well as sinciput orange-yellow, extending over the head; rump golden yellow . . . . . *aureifrons*, p. 159.

\* In a large genus like the present it is difficult to arrange the species in natural groups, each of which shall possess its own characters and none other. The student is therefore requested to examine carefully all the leading divisions of the present "Key," as some of the characters common to several sections are qualified by minor points of difference, by which it is hoped that any species of *Zosterops* may be recognized without much trouble. In the case of some Papuan species unknown to the author, he has been obliged to classify them from Count Salvadori's work on the Birds of New Guinea, to which he is much indebted.

Some few species which he has not seen he has not been able to place in their exact positions in the "Key;" so he has put them in the sections to which they belong, as near as possible to their apparent allies.

- d.* Forehead like the crown, the base sometimes brighter yellow; rump a little more yellow than the back, or a little greener.
- e'*. Sides of body clear rufous or pale chestnut.
- e''*. Base of forehead bright orange . . . . . *pallida*, p. 160.
- d''*. Base of forehead scarcely lighter than crown; a small loral streak of yellow.
- e'''*. No grey on the fore neck and chest, which are vinous like the flanks . . . . . *japonica*, p. 160.
- d'''*. Fore neck and chest grey.
- e<sup>4</sup>*. Breast white like the abdomen; colour above yellowish green. *erythropleura*, p. 161.
- d<sup>4</sup>*. Breast ashy; abdomen whitish; colour above bright olive-green *gouldi*, p. 162.
- f.* Sides of body isabelline or ashy.
- e<sup>4</sup>*. A bright yellow loral mark.
- e<sup>4</sup>*. Yellow of throat confined to the latter portion, and not extending beyond the fore neck.
- e<sup>4</sup>*. Centre of abdomen washed with yellow, forming a longitudinal streak.
- a<sup>5</sup>*. Sides of body bluish ashy.
- a<sup>5</sup>*. Larger: olive - golden, brighter golden yellow on the rump and upper tail-coverts . . . . . *grayi*, p. 162.
- b<sup>5</sup>*. Smaller: olive - yellow above, much brighter on the rump; sides of body bluish ashy, with narrow pale median streak of yellow . . . . . *aureiventer*, p. 163.
- e<sup>5</sup>*. Greener above; scarcely lighter on the rump; sides of body slaty blue, with broad yellow median streak . . . . . *everetti*, p. 163.
- b<sup>5</sup>*. Sides of body pale ashy grey or isabelline.
- d<sup>5</sup>*. Larger: wing 2.3 to 2.45 inches; upper surface very pale olive-yellow; throat and under tail-coverts sulphur-yellow . . . . . *albiventer*, p. 164.
- e<sup>5</sup>*. Smaller: wing 2.2 inches; above yellowish green; throat bright yellow; under tail-coverts golden *crissalis*, p. 165.
- f<sup>1</sup>*. No yellow streak on the abdomen.
- e<sup>5</sup>*. Loral spot of yellow very large and distinct, and extending over the base of the forehead; plumage yellower { *palpebrosa*, p. 165.  
*citrinella*, p. 168.  
*abyssinica*, p. 168.  
*poliogaster*, p. 169.  
*anjuanensis*, p. 170.

- d*<sup>5</sup>. Loral spot very indistinct, and not extending to the base of the forehead; plumage darker . . . . . } *madagascariensis*, p. 170.  
*f*<sup>'''</sup>. Yellow of throat spreading onto the breast . . . . . } *capensis*, p. 171.  
*f*<sup>''</sup>. No perceptible loral mark of yellow. *explorator*, p. 172.  
*g*<sup>'''</sup>. Yellow of throat extending over the fore neck and chest, and even tinging the abdomen.  
*g*<sup>4</sup>. Sides of body ashy brown . . . *ceylonensis*, p. 173.  
*h*<sup>4</sup>. Sides of body isabelline brown *xanthochroa*, p. 174.  
*h*<sup>'''</sup>. Yellow confined to the throat; fore neck and chest ashy; abdomen whitish.  
*i*<sup>4</sup>. Throat yellow.  
*e*<sup>5</sup>. Larger: bill brown . . . . . *griseiventer*, p. 174.  
*f*<sup>5</sup>. Smaller: bill black . . . . . *novæ guineæ*, p. 175.  
*k*<sup>4</sup>. Throat golden yellow . . . . . *aureigula*, p. 176.
- e*. Forehead dusky or black.  
*g*<sup>''</sup>. Forehead only black; throat olive-yellow . . . . . *atrifrons*, p. 176.  
*h*<sup>''</sup>. Whole head black; throat greenish yellow . . . . . *atricapilla*, p. 176.  
*i*<sup>''</sup>. Forehead and sinciput black; throat bright yellow . . . . . *delicatula*, p. 177.  
*k*<sup>''</sup>. Forehead dusky brown; throat deep golden yellow . . . . . *chrysolæma*, p. 177.
- C*. Throat yellow like the rest of the under surface; flanks yellow like the abdomen, or only a little greener or more olive.
- f*. Quills and tail brownish black.
- g*<sup>4</sup>. Crown of head black.  
*l*<sup>''</sup>. Ear-coverts olive-yellow; throat yellow shaded with olive . . . . . *fuscicapilla*, p. 178.  
*m*<sup>''</sup>. Ear-coverts blackish; throat bright golden yellow like the rest of the under surface . . . . . *hypoxantha*, p. 178.
- h*<sup>4</sup>. Crown of head like the back.  
*n*<sup>''</sup>. With no black or dusky spot in front of the eye.  
*i*<sup>'''</sup>. Clear olive-yellow above; rump and upper tail-coverts olive-yellow . . . . . *flava*, p. 179.  
*k*<sup>'''</sup>. Dull olive-yellow above; rump like rest of under surface, only slightly yellower . . . . . *meyeni*, p. 180.
- o*<sup>''</sup>. With a black or dusky spot in front of the eye.  
*l*<sup>'''</sup>. Bill shorter; the culmen not exceeding the length of the hind toe and claw.  
*l*<sup>4</sup>. Olive-yellow above.  
*g*<sup>5</sup>. Eyebrows not lighter than crown; ear-coverts golden olive . . . . . *siamensis*, p. 180.  
*h*<sup>5</sup>. A bright yellow eyebrow; ear-coverts pale olive-yellow *sencgalensis*, p. 181.

- m*<sup>4</sup>. Olive-greenish above; ear-coverts also olive-greenish .. *kiriki*, p. 182.
- m*<sup>'''</sup>. Bill long, but still shorter than the head.
- n*<sup>4</sup>. Grass-green above; bright yellow below, with green flanks ..... *virens*, p. 182.
- o*<sup>4</sup>. Olive-yellow or olive-greenish above; bright yellow below, with olive-yellow or olive-greenish flanks ..... } *lutea*, p. 183.  
*chloris*, p. 184.  
*buruensis*, p. 184.
- n*<sup>'''</sup>. Bill longer, always exceeding the length of the hind toe and claw. } *intermedia*, p. 185.  
*gallio*, p. 185.  
*nigrorum*, p. 186.
- p*<sup>4</sup>. Olive-yellow above, with the outer edge of the primaries olive-yellow.
- i*<sup>5</sup>. Base of forehead and loreal spot golden yellow..... } *flavifrons*, p. 187.  
*gulliveri*, p. 188.
- k*<sup>5</sup>. Base of forehead uniform with upper surface; no bright loreal spot..... *rendovæ*, p. 188.
- q*<sup>4</sup>. Olive-green above, with no yellow at the base of the forehead; outer edge of primaries grey..... *griseitincta*, p. 189.
- g*. Quills and tail brownish.
- i*<sup>'</sup>. Head dusky; above yellowish green; rump yellow ..... *uropygalis*, p. 190.
- k*<sup>'</sup>. Forehead like rest of head and back.
- l*<sup>5</sup>. Bill light brown; no dusky spot in front of eye ..... *longirostris*, p. 189.
- m*<sup>5</sup>. Bill black; a blackish spot in front of eye ..... *brunneicauda*, p. 190.
- D. Throat yellow like rest of under surface; flanks more rufescent than the abdomen, which is yellow.
- h*. Quills and tail-feathers black; flanks chestnut.
- l*<sup>'</sup>. Forehead like the rest of the crown .. *semiflava*, p. 190.
- m*<sup>'</sup>. Forehead bright yellow..... *mayottensis*, p. 191.
- i*. Quills and tail-feathers dusky; flanks pale isabelline brown.
- n*<sup>'</sup>. No white tuft on the flanks ..... *chlorates*, p. 191.
- o*<sup>'</sup>. A conspicuous white tuft on the flanks *minuta*, p. 192.
- E. Throat whitish; chest ashy or brownish; bill black; upper parts uniform, or the head ashy grey or dusky.
- k*. Particoloured above; under tail-coverts yellow.
- p*<sup>'</sup>. Forehead dusky; entire back olive-greenish; legs dark ..... *olivacea*, p. 192.
- q*<sup>'</sup>. Head and back grey; rump and upper tail-coverts olive-yellowish; legs pale. *chloronota*, p. 193.
- l*. Uniform dingy olive-brown above; under tail-coverts whitish tinged with dusky.. *modesta*, p. 194.

- F. Upper tail-coverts white, contrasting with back ..... (MALACIROPS.)
- m. Entire upper surface grey.
- m'. Delicate grey above; throat and breast white ..... *mauritiana* ♂ and ♀, [p. 194.
- s'. Dark ashy grey above; chin only white; lower throat and breast ashy grey .. *borbonica* ♂, p. 195.
- n. Entire upper surface rusty brown ..... *borbonica* ♀, p. 196.
- o. Back rusty brown; throat and breast grey *borbonica* juv., p. 196.
- G. Head bluish grey, contrasting with back, which is olive-yellowish or green..... (OREOZOSTEROPS.)
- p. A broad white eyebrow ..... *javanica*, p. 196.
- q. No white eyebrow ..... *fallax*, p. 197.
- H. Under surface uniform earthy or reddish brown or grey ..... (TEPHRAS.)
- r. Above and below ruddy brown; throat ashy ..... *finschii*, p. 197.
- s. Above dirty ashy grey; under surface pale ashy grey ..... *cinerea*, p. 198.
- t. Above olive earth-brown; under surface brownish ash-grey ..... *ponapensis*, p. 198.
- I. Under mandible reddish brown, probably reddish in life; under tail-coverts olive-brown or whitish ..... (SPEIROPS.)
- u. Lores black, as also feathers below the eye; ear-coverts and throat olive-green *melanops*, p. 198.
- v. Lores white.
- t'. Ear-coverts ashy like the throat .... *lugubris*, p. 199.
- u'. Ear-coverts blackish ..... *melanocephala*, p. 200.
- K. Head and nape hoary grey, contrasting with back; forehead, eyebrow, and ear-coverts white; throat and abdomen white, contrasting with ashy-grey breast and flanks..... (PARINIA.) *leucophæa*, p. 200.
- L. Throat white like rest of under surface; under tail-coverts yellow
- w. A ring of white feathers round the eye.
- v'. Head and neck dusky black ..... *atriceps*, p. 200.
- w'. Sinciput and lores only dusky; occiput and nape yellowish olive ..... *fuscifrons*, p. 201.
- x. No white ring round the eye.
- x'. Entire head olivaceous ..... *mysoriensis*, p. 201.
- y'. Head dusky blackish towards the forehead ..... *hypoleuca*, p. 202.
- M. Head scaly, the feathers yellow with black centres.
- y. Larger: wing 2·7 inches..... *muelleri*, p. 202.
- z. Smaller: wing 1·95 inch ..... *frigida*, p. 203.
- N. Under surface entirely white with a tinge of yellow ..... *ficedulina*, p. 203.

### 1. *Zosterops cærulescens*.

Cærulean Creeper, *Lath. Gen. Syn. Suppl.* p. xxxviii (1801).  
Rusty-sided Warbler, *Lath. t. c.* p. 169 (1801).



*Certhia cærulescens*, *Lath. Ind. Orn. Suppl.* p. xxxviii (1801).

*Sylvia lateralis*, *Lath. t. c.* p. lv (1801).

*Zosterops dorsalis*, *Vig. & Horsf. Trans. Linn. Soc.* xv. p. 235 (1826); *Gould, B. Austr.* fol. iv. pl. 81 (1848); *Hartl. J. f. O.* 1865, p. 19; *Taylor, Ann. & Mag. Nat. Hist.* (3) xviii. p. 140 (1866); *Hutton, Ibis*, 1870, p. 398; *Finsch, J. f. O.* 1870, p. 108; *Buller, Man. B. New Zealand*, p. 12 (1882).

*Zosterops lateralis*, *Gray, Gen. B.* i. p. 198 (1848); *Buller, Trans N. Zeal. Inst.* 1870, p. 16, pl. 3; *Potts, t. c.* p. 59, pl. 12; *Buller, B. New Zealand*, p. 61 (1872); *Hutton, Ibis*, 1872, p. 244.

*Zosterops cærulescens*, *Blyth, Cat. B. Mus. As. Soc.* p. 220 (1849); *Bp. Consp.* i. p. 398 (1850); *Gould, Handb. B. Austr.* i. p. 587 (1865); *Sharpe, Voy. Erebus & Terror, Birds, App.* p. 24 (1875); *Gray, Hand-l. B. i.* p. 161, no. 2107 (1869); *Ramsay, Proc. Linn. Soc. N. S. Wales*, ii. p. 191 (1878).

? *Zosterops australis*, *Ramsay, Ibis*, 1863, p. 180.

*Male.* General colour above dark ashy grey on the hind neck, mantle, scapulars, and upper part of the back, olive-yellow on the lower back, rump, and upper tail-coverts; wing-coverts ashy brown, broadly washed with olive-yellow on the outer web; the bastard-wing and primary-coverts more narrowly edged with the latter colour; quills dusky brown, margined with olive-yellow, broader on the secondaries; tail-feathers also dusky brown, edged with olive-yellow; crown of the head and nape dull olive-yellow, with a lighter yellow tint at the base of the forehead; lores blackish, as also a streak below the eye; a ring of feathers round the eye silvery white; ear-coverts like the head; cheeks and chin dull olive-yellowish, extending down the sides of the throat, which with the fore neck and chest is ashy, fading off into dull white on the breast and abdomen; sides of the body and flanks deep tawny buff or light chestnut; thighs and under tail-coverts white, the latter washed with yellow; under wing-coverts and axillaries white; quills ashy brown below, inner edges white; "upper mandible dark brown, under mandible lighter; feet greyish brown; iris greyish brown" (*Gould*). Total length 4.6 inches, culmen 0.45, wing 2.4, tail 1.8, tarsus 0.65.

*Young.* Similar to the adult, but all the colours on the upper surface duller, and on the under surface paler, the grey colour on the throat and the fulvous colour on the flanks.

*Hab.* Australia; New Zealand; Chatham Islands.

<i>a.</i> Ad. sk.	Moreton Bay.	Gould Collection.
<i>b.</i> Ad. sk.	New South Wales.	Gould Collection.
<i>c.</i> Ad. sk.	Bathurst, N. S. W.	Zoological Society.
<i>d, e.</i> Juv. sk.	South Australia.	Sir George Grey [P.].
<i>f, g.</i> Ad. et imm. sk.	Tasmania.	R. Gunn, Esq. [P.].
<i>h.</i> Ad. sk.	Tasmania.	Gould Collection.
<i>i.</i> Ad. sk.	Australia.	Linnean Society.
		(Type of <i>Z. dorsalis</i> .)
<i>k, l.</i> Ad. sk.	New Zealand.	Henry T. Wharton, Esq. [P.].
<i>m, n.</i> Ad. sk.	New Zealand.	Gould Collection.
<i>o.</i> Ad. sk.	Wanganui, New Zealand.	Richard Taylor, Esq. [P.].
<i>p.</i> Ad. sk.	South Island, N. Z.	J. White, Esq. [P.].

2. *Zosterops albigularis*.

*Zosterops albigularis*, *Gould, P. Z. S.* 1836, p. 75; *id. Syn. B. Austr.* i. (1837); *Gray, Gen. B.* i. p. 198 (1848); *Von Pelz. Sitz. k. Akad. Wien*, xli. p. 320 (1860); *Gray, Ibis*, 1862, p. 222; *Gould, B. Austr.* fol. *Suppl.* pl. 46 (1859); *id. Handb. B. Austr.* ii. p. 535 (1865); *Hartl. J. f. O.* 1865, p. 17; *Gray, Hand-l. B.* i. p. 162, no. 2111 (1869).

*Male*. General colour above dull olive-brown, a little greener on the rump and upper tail-coverts; wing-coverts greener than the back; bastard-wing and primary-coverts dusky blackish, edged with green externally; quills dusky brown, externally ashy grey tinged with green, the inner secondaries washed with green on the outer web; tail-feathers dusky brown with greenish margins, ashy whitish along the edge of the inner web; crown of the head a little greener than the back and slightly tinged with grey; lores black, extending in a narrow streak under the eye; eyelid silky white; ear-coverts ashy grey, extending onto the sides of the neck and having a faint tinge of green; cheeks and throat white; lower throat, breast, and abdomen white, a little greyer on the fore neck and chest; sides of body and flanks light cinnamon; thighs white with a slight tinge of yellow; under tail-coverts pale yellow, a little more dingy at the ends of the long coverts; under wing-coverts and axillaries pure white; quills dusky below, inner edges white; "bill and legs lead-colour" (*Gould*). Total length 5·8 inches, culmen 0·65, wing 3·05, tail 2·15, tarsus 0·84.

*Female*. Similar in colour to the male. Total length 5·5 inches, culmen 0·7, wing 2·95, tail 2·1, tarsus 0·85.

*Hab.* Norfolk Island.

<i>a, b.</i> Ad. sk.	[Norfolk Island.]	Sir T. Mitchell [C.].
<i>c, d.</i> ♂ ♀ ad. sk.	Norfolk Island, June 1865.	Julius Brenehley, Esq. [P.].

3. *Zosterops tenuirostris*.

*Zosterops tenuirostris*, *Gould, P. Z. S.* 1836, p. 76; *id. Syn. B. Austr.* pt. 1 (1838); *id. B. Austr.* fol. *Suppl.* pl. 47 (1859); *Von Pelz. Sitz. k. Akad. Wien*, lxi. p. 320 (1860); *Gray, Ibis*, 1862, p. 222; *Gould, Handb. B. Austr.* ii. p. 536 (1865); *Hartl. J. f. O.* 1865, p. 18; *Gray, Hand-l. B.* i. p. 162, no. 2110 (1869).

*Zosterops lateralis*, *Gray, Gen. B.* i. p. 198 (1848) (*nec Lath.*).

*Adult male*. General colour above sombre brown; rump and upper tail-coverts olive-green; lesser wing-coverts like the back; median and greater coverts ashy with green margins; bastard-wing black; primary-coverts blackish, edged with olive-green; quills dusky, edged with olive-green, yellowish on the primaries; tail-feathers dusky, margined externally with olive-green, internally with a narrow whitish border; crown of head olive-greenish, a little yellower on the sides of the nape; lores slightly yellower than the crown; feathers round the eye white, with a blackish spot in front of the eye extending backwards below the latter; ear-coverts olive-green; cheeks, throat, and fore neck brighter yellow, with a few dusky tips to the anterior

feathers of the cheeks; breast and abdomen duller yellow; sides of body and flanks dusky olive-brown, lighter brown on the latter; thighs olive externally, yellow on the inner side; under tail-coverts pale yellow, olive in the centre of the feathers; inner wing-coverts and axillaries dull white, slightly washed with yellow, with pale dusky bases; quills below dusky; inner edge of quills ashy whitish; "iris reddish brown" (*Brenchley*). Total length 5 inches, culmen 0·65, wing 2·6, tail 2, tarsus 0·85.

*Female*. Like male. Total length 5 inches, culmen 0·65, wing 2·6, tail 2, tarsus 0·8.

*Hab.* Norfolk Island\*.

a. Ad. sk.	[Norfolk Island.]	Zoological Society.
b. Ad. sk.	[Norfolk Island.]	Gould Collection.
c. Ad. sk.	[Norfolk Island.]	Gould Collection.
d, e. ♂ ♀ ad. sk.	Norfolk Island, June 1865.	Julius Brenchley, Esq. [P.].

#### 4. *Zosterops strenua*.

*Zosterops strenuus*, *Gould, P. Z. S.* 1855, p. 166; *id. B. Austr. Suppl.* pl. 48 (1869); *Gray, Ibis*, 1862, p. 222; *Gould, Handb. B. Austr.* ii. p. 537 (1865); *Hartl. J. f. O.* 1865, p. 18; *Gray, Hand-l. B.* i. p. 162, no. 2103 (1869).

*Adult female*. General colour above light ashy grey on the mantle, scapulars, and upper back; lower back, rump, and upper tail-coverts olive-green; wing-coverts olive-green; bastard-wing feathers and primary-coverts blackish, the latter with olive-green margins; quills dusky brown, edged with olive-green, yellower on the primaries; tail-feathers dusky brown, edged with olive-green; crown of head, nape, and hind neck lighter olive-green, with a line of bright yellow above the lores; lores blackish, as well as a line below the eye; feathers round the eye white; ear-coverts olive-green; cheeks, throat, and fore neck brighter yellow; chest light ashy, tinged on the sides with isabelline brown; breast and abdomen white; sides of body and flanks isabelline brown; thighs white, washed yellow; under tail-coverts a little brighter yellow; under wing-coverts and axillaries white; edge of wing yellow; quills below dusky; inner edge of quills whitish. Total length 5·7 inches, culmen 0·85, wing 2·75, tail 2·15, tarsus 0·85.

*Hab.* Lord Howe's Island.

a. ♀ ad. sk.	Lord Howe's Island ( <i>J. Macgillivray</i> ).	Voyage of H.M.S. 'Herald.'
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#### 5. *Zosterops westernensis*.

*Zosterops annulosa*, var.  $\beta$ , *Swains. Zool. Illustr.* 1st ser. iii. p. 139 (c. 1824).

\* Not only in the British Museum, but in others on the continent are found specimens said to have been procured in Australia. One bird in the British Museum is labelled "Moreton Bay;" but I do not know if there are any really authentic instances of its occurrence in Australia itself.

- Daenis westernensis*, *Quoy et Gaim. Voy. de l' Astrol.* i. p. 215, pl. 11. fig. 4 (1830).
- Zosterops westernensis*, *Reichenb. Handb., Merop.* p. 93, pl. 462. fig. 3302 (c. 1852); *Hartl. J. f. O.* 1865, p. 20; *Gray, Hand-l. B. i.* p. 163, no. 2136 (1869).
- Zosterops flaviceps*, *Peale, U.S. Expl. Exped.* p. 95, pl. 25. fig. 5 (1848); *Cass. U.S. Expl. Exped.* p. 167, pl. 10. fig. 4 (1858); *Gray, Cat. B. Trop. Isl. Pacific Ocean*, p. 15 (1869); *Hartl. J. f. O.* 1865, p. 21; *Finsch & Hartl. Faun. Centralpolyn.* p. 52, pl. i., pl. vi. fig. 7 (1867); *Gray, Hand-l. B. i.* p. 163, no. 2142 (1869); *Layard, P. Z. S.* 1875, p. 430; *id. Ibis*, 1876, pp. 153, 392; *Finsch, P. Z. S.* 1877, p. 733; *id. Voy. Challenger*, ii. p. 48, pl. xiv. fig. 1 (1881).
- Zosterops tephroleura*, *Gould, P. Z. S.* 1855, p. 166; *id. B. Austr. Suppl.* pl. 49 (1859); *id. Handb. B. Austr.* i. p. 538 (1865); *Hartl. J. f. O.* 1865, p. 18; *Gray, Hand-l. B. i.* p. 162, no. 2109.
- Zosterops griseonota*, *Gray, P. Z. S.* 1859, p. 161; *id. Cat. B. Trop. Isl. Pacific Ocean*, p. 15 (1859); *Ferr. Rev. et Mag. de Zool.* 1860, p. 435; *Gray, Ibis*, 1862, p. 222; *Hartl. J. f. O.* 1865, p. 20; *Gray, Hand-l. B. i.* p. 162, no. 2113 (1869); *Marie, Actes Soc. Linn. Bordeaux*, xxvii. p. 327 (1870); *E. L. & L. C. Layard, Ibis*, 1878, pp. 259, 270, 280.

*Adult.* General colour above ashy grey on the mantle, upper back, and scapulars; lower back, rump, and upper tail-coverts olive-yellow, a little brighter on the latter; wing-coverts, bastard-wing feathers, and primary-coverts dusky ashy brown, edged with olive-yellow; quills dusky, also narrowly edged with olive-yellow; tail-feathers ashy brown, edged on the outer webs with olive-yellow, and along the inner webs with whitish; crown of head and nape dull olive-yellow; hind neck like the back, as also the sides of the neck; lores yellow; in front of the eye a dusky spot, extending in a blackish line back below the eye; round the eye a ring of silvery white; ear-coverts dull olive-yellow like the crown; cheeks and throat a little brighter yellow, the throat sharply defined; fore neck and chest ashy grey, shading off into dull white on the breast and abdomen; sides of body and flanks very pale tawny brown; thighs and under tail-coverts white, the latter with a faint tinge of yellow; under wing-coverts and axillaries white; quills below dusky: inner edge of quills white. Total length 4.5 inches, culmen 0.55, wing 2.4, tail 1.8, tarsus 0.6.

*Obs.* An Australian specimen has been described, and it is extraordinary that a bird which seems to be widely distributed on that continent should so much have escaped notice, the only allusion to the species that I can find in Mr. Gould's work being a passage where he mentions that some specimens of *Z. caeruleus* have the "throat wax-yellow." It seems to be the *Z. westernensis* (Q. & G.), a species re-instated in the system by Dr. Hartlaub (*J. f. O.* 1865, p. 20).

I believe that *Z. ramsayi* of Masters is the same species, as I cannot find in the description any character wherein it differs; and with regard to Mr. Masters's remark that "the very large zone of white feathers round the eye will always serve to distinguish this from all

other Australian species," I would observe that this is an uncertain character in *Zosterops*, so much depending on the preparation of the specimen. Mr. Ramsay, however, informs me personally that he believes this white eye-ring to be a character in this species.

*Z. griseonota* from New Caledonia cannot, in my opinion, be kept distinct from the Australian bird, which it resembles in its paler under tail-coverts. The types measure as follows:—

	Total length.	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.	in.
a. ♂. Nu ( <i>J. Macgillivray</i> )	4·7	0·5	2·45	1·9	0·75
b. ♀. Nu ( <i>J. Macgillivray</i> )	4·5	0·5	2·45	1·9	0·7

*Z. tephropleura*, from Lord Howe's Island, is a slightly larger race, with brighter yellow under tail-coverts; the paler colour of the flanks is matched by many specimens from the continent of Australia. The type measures:—

a. ♂ ad. Lord Howe's Island. Total length 4·8 inches, culmen 0·6, wing 2·4, tail 1·95, tarsus 0·75.

Two specimens from Erromango are referred to *Z. tephropleura* by Mr. G. R. Gray. They measure:—

a, b. ♂. Erromango (*J. Brenchley*). Total length 5 inches, culmen 0·55-0·6, wing 2·55-2·6, tail 2·1, tarsus 0·8.

Though even exceeding the type of *Z. tephropleura* in size, they are somewhat intermediate between it and the Australian specimens, having the yellow under tail-coverts not so bright as in *Z. tephropleura*, and yet more yellow than in the continental bird.

Concerning the Fijian birds, Dr. Finsch writes that the only difference he could discover between them and examples of *Z. westermansis* lay in the brighter yellow under tail-coverts. As our series does not confirm this character, I have been compelled to add *Z. flaviceps* as a synonym of the present species. I give the description of an old bird:—

*Adult male*. General colour above bluish grey on the mantle and upper back; the lower back, rump, and upper tail-coverts olive-yellow; the lesser wing-coverts, median and greater coverts olive-yellow; bastard-wing feathers blackish; primary-coverts and quills dusky brown, externally margined with olive-yellow, a little lighter towards the ends of the primaries; tail-feathers light brown, externally edged with olive-yellow, internally with white; crown of the head, nape, and hind neck olive-yellow, with a narrow line of brighter yellow above the lores; lores blackish, as well as a streak below the eye; ring round the eye silky white; ear-coverts dull olive-yellow; cheeks and throat brighter yellow, a little tinged with olive on the lower throat; fore neck and breast ashy grey, darker on the sides of the breast; abdomen white, tinged with yellow; sides of the body and flanks clear isabelline brown; thighs white; under tail-coverts yellow; under wing-coverts and axillaries white, the edge of the wing yellow; quills below dusky; inner edge of quills whitish. Total length 4·5 inches, culmen 0·5, wing 2·35, tail 1·85, tarsus 0·7.

*Adult female.* Similar to the male in colour. Total length 4·5 inches, culmen 0·55, wing 2·35, tail 1·75, tarsus 0·7.

*Hab.* Australia, New Caledonia, New Hebrides, Lord Howe's Island, Fiji Islands\*.

*α. Z. westernensis.*

<i>a.</i> Ad. sk.	Adelaide, S. Australia, Oct. 10, 1870 ( <i>White</i> ).	Gould Collection.
<i>b, c.</i> Ad. sk.	New South Wales.	Gould Collection.
<i>d, e.</i> Ad. sk.	Richmond River.	A. P. Goodwin [C.].
<i>f, g.</i> Ad. sk.	Moreton Bay.	Gould Collection.
<i>h, i, k.</i> Ad. sk.	Brisbane, Queensland ( <i>J. T. Cockerell</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>l.</i> Ad. sk.	Cape Upstart ( <i>J. B. Jukes</i> ).	Voyage of H.M.S. 'Fly.'

*β. Z. tephropleura.*

<i>m.</i> ♂ ad. sk.	Lord Howe's Island.	J. Macgillivray, Esq. [C.]. (Type of <i>Z. tephropleura</i> .)
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*γ. Z. griseonota.*

<i>n, o.</i> ♂ ♀ ad. sk.	Nu, Port de France, New Caledonia.	J. Macgillivray, Esq. [C.]. (Types of <i>Z. griseonota</i> .)
<i>p, q.</i> ♂ ad. sk.	Erromango, New Hebrides, Aug. 1865.	Julius Brenchley, Esq. [C.].

*δ. Z. flaviceps.*

<i>r, s.</i> ♂ ♀ ad. sk.	Levuka.	Voyage of H.M.S. 'Challenger.'
<i>t.</i> ♂ ad. sk.	Ovalau, May 18, 1875.	E. L. Layard, Esq. [C.].
<i>u.</i> Ad. sk.	Taviuni, Fiji ( <i>L. Liardet</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].

6. *Zosterops vatensis.*

*Zosterops vatensis*, *Tristr. Ibis*, 1879, p. 444.

This species may be discriminated from *Z. griseonota* by its very strong bill, the much greater extent of yellow on the throat and neck, and the absence of yellow on the lower tail-coverts. Total length 5·3 inches, culmen 0·55, wing 2·55, tail 2, tarsus 0·85. (*Tristram, l. c.*)

*Hab.* Vate, New Hebrides.

\* Probably identical is:—

ZOSTEROPS RAMSAYI.

*Zosterops ramsayi*, *Masters, Proc. Linn. Soc. N. S. W.* i. p. 56 (1877);  
*Ramsay, op. cit.* ii. p. 191 (1878).

Crown of the head, neck, throat, wings, rump, and under tail-coverts greenish yellow; lores and a line beneath the eye black; back and chest bluish grey; abdomen light grey, passing into very light buff on the flanks; primaries and secondaries brownish black, margined on their outer webs with yellow, beneath on their inner webs with white; tail brown, margined with yellow; legs and feet bluish grey; upper mandible brownish black, under mandible horn-colour; iris brown. Total length 4·4 inches, wing 2·4, tail 1·75, tarsus 0·65, bill from forehead 0·5, from gape 0·6. (*Masters*.)

*Hab.* Palm Island, Torres Straits.

Canon Tristram very kindly lent me one of the types of this species. I cannot attach much importance to the stoutness of the bill or the extent of yellow on the throat; but the under tail-coverts are certainly white, while in all our specimens of *Z. griseonota* they are more or less yellow. Considering, however, how even this character varies in specimens from different localities, I anticipate that *Z. vatensis* may be matched in this respect with skins from the other islands of the New Hebrides group.

### 7. *Zosterops inornata*.

*Zosterops inornata*, *E. L. & C. L. Layard, Ibis*, 1878, p. 259; *Tristr. Ibis*, 1879, p. 186, pl. 4. f. 2; *E. L. & L. C. Layard, Ibis*, 1880, p. 224.

*Adult male*. General colour above dull ashy grey on mantle, scapulars, and upper back; rump and upper tail-coverts dull olive-green; lesser wing-coverts olive-greenish, a little more yellowish olive on the median and greater coverts; bastard-wing feathers dusky blackish; primary-coverts and quills dusky, edged with dull olive-yellow, a little brighter on the primaries; tail-feathers dusky, with olive-green margins; crown of head, nape, and hind neck dull olive-yellow; lores dull white; round the eye a very narrow ring of whitish feathers: ear-coverts, cheeks, and throat dull olive-yellow, a little clearer on the latter; fore neck and breast dull ashy grey; abdomen ashy whitish; sides of body and flanks dusky isabelline brown; thighs ashy whitish, tinged yellow; under tail-coverts pale olive-yellow; under wing-coverts and axillaries ashy whitish; quills below dusky; inner edge of quills ashy white; "bill corneous; legs pale salmon-colour; iris drab" (*Layard*). Total length 5.3 inches, culmen 0.75, wing 2.75, tail 1.9, tarsus 0.8.

*Female*. Like the male in colour, but the breast slightly overshadowed with olive-green. Total length 5.3 inches, culmen 0.8, wing 2.9, tail 1.9, tarsus 0.5.

*Hab.* Loyalty Islands.

- |              |  |                          |
|--------------|--|--------------------------|
| a. ♂ ad. sk. | Lifu, Loyalty Islands,<br>Aug. 18, 1878. | E. L. Layard, Esq. [C.]. |
| b. ♀ ad. sk. | Lifu, Jan. 13, 1878.                     | E. L. Layard, Esq. [C.]. |

### 8. *Zosterops aureifrons*.

*Zosterops aureifrons*, *Wallace, P. Z. S.* 1863, p. 493; *Hartl. J. f. O.* 1865, p. 24; *Finsch, Neu-Guinea*, p. 164 (1865); *Gray, Hand-l. B.* i. p. 162, no. 2125 (1869).

*Male*. General colour above olive-yellow, with slightly indicated paler yellow shaft-lines; the rump and upper tail-coverts bright golden yellow; wing-coverts like the back; edge of the wing bright yellow; quills dusky brown, externally olive-yellow, a little brighter on the primaries; tail-feathers dusky brown, washed with olive and edged with olive-yellow; crown of the head golden olive, the forehead brighter orange-yellow; lores and feathers round the eye golden

yellow; in front of the eye a dusky spot; ear-coverts golden olive; cheeks and throat golden yellow; fore neck, breast, sides of body, and flanks light bluish grey; the abdomen white; thighs olive-yellow; under tail-coverts golden yellow; under wing-coverts and axillaries white, the edge of the wing golden yellow; quills light brown below, inner edges ashy whitish. Total length 4·5 inches, culmen 0·5, wing 2·15, tail 1·65, tarsus 0·7.

*Hab.* Flores and Sumbawa.

*a, b, c.* Ad. sk. Flores. A. R. Wallace, Esq. [C.]  
(Types of species.)

### 9. *Zosterops pallida*.

*Zosterops pallida*, *Swains. Anim. in Menag.* p. 294 (1837); *Gray, Gen. B. i.* p. 198 (1848); *Bp. Consp. i.* p. 399 (1850); *Heugl. Ibis*, 1861, p. 359; *Hartl. Ibis*, 1862, p. 147; *Layard, B. S. Afr.* p. 117 (1867); *Gray, Hand-l. B. i.* p. 163, no. 2155 (1869).

*Zosterops lateralis*, *Sundev. Efvs. K. Vet.-Akad. Förh. Stockh.* 1850, p. 101 (*nee Lath.*); *Bp. Consp. i.* p. 399 (1850); *Heugl. Ibis*, 1861, p. 358; *Layard, B. S. Afr.* p. 117; *id. Ibis*, 1869, p. 367.

*Zosterops sundevalli*, *Hartl. J. f. O.* 1865, p. 8; *Gray, Hand-l. B. i.* p. 162, no. 2132 (1869); *Sharpe, Cat. Afr. B.* p. 36 (1871); *Ayres, Ibis*, 1879, p. 404.

*Zosterops capensis*, *Gurney, Ibis*, 1869, p. 292, 1873, p. 280.

*Adult male.* General colour above olive-green, decidedly clearer and more yellow on the upper tail-coverts; forehead and lores bright yellow; in front of the eye a black spot, extending in a line under the eye; round the eye a ring of silvery-white feathers; sides of face and ear-coverts olive-green; cheeks and entire throat bright yellow, ending abruptly on the fore neck; centre of the body whitish, slightly washed with tawny; sides of upper breast greyish brown; the flanks pale isabelline brown; under tail-coverts bright yellow; under wing-coverts dull white, washed with yellow on the edge of the wing; upper wing-coverts green like the back; quills dark brown, the primaries externally margined with yellowish green, the secondaries with olive-green; tail-feathers brown, with olive-green edgings. Total length 4·7 inches, culmen 0·5, wing 2·35, tail 1·9, tarsus 0·7.

*Hab.* South Africa, along the Orange River and extending into the Transvaal.

<i>a.</i> Ad. sk.	Colesberg ( <i>Ortlepp</i> ).	R. B. Sharpe, Esq.
<i>b.</i> ♂ ad. sk.	Potchefstroom, June 1871 ( <i>T. Ayres</i> ).	R. B. Sharpe, Esq.
<i>c.</i> Ad. sk.	Transvaal ( <i>T. Ayres</i> ).	R. B. Sharpe, Esq.
<i>d.</i> Ad. sk.	Orange River.	Dr. R. F. Bradshaw [P.].

### 10. *Zosterops japonica*.

*Zosterops japonica*, *Temm. & Schleg. Fauna Japon., Aves*, p. 57, pl. 22 (1850); *Bp. Consp. i.* p. 399 (1850); *Reichenb. Handb., Merop.* p. 92, pl. 461, fig. 3296 (1852); *Cass. in Perry's Exp.* p. 221 (1856); *Hartl. J. f. O.* 1865, p. 14; *Gray, Hand-l. B. i.* p. 162, no. 2124; *Blakist. & Pryer, Ibis*, 1878, p. 230; *id. List B. Japan*, p. 153.



*Adult.* General colour above grass-green; wing-coverts like the back; median and greater coverts dusky, externally grass-green like the back; bastard-wing feathers blackish; primary-coverts and quills dusky brown, edged with grass-green; rump and upper tail-coverts like the back; tail-feathers dusky, margined with grass-green; crown of the head like the back; lores and base of the forehead a little yellower than the back; ring of feathers round the eye silky white; in front of the eye a dusky spot extending in a narrow line below the eye; ear-coverts grass-green; throat and fore neck bright sulphur-yellow; breast, sides of body, and flanks ruddy or pale vinous brown; abdomen whiter; thighs pale yellow; under tail-coverts bright yellow; under wing-coverts and axillaries white, tinged with yellow on the edge of the wing; quills below dusky; inner edge of quills white. Total length 4 inches, culmen 0·6, wing 2·35, tail 1·65, tarsus 0·7.

*Hab.* Japan.

a. Ad. sk.	Japan.	Eyton Collection.
b, c. Ad. sk.	Japan.	Gould Collection.
d. Ad. sk.	Nagasaki, Japan.	Purchased.
e. Ad. sk.	Hakodadi.	H. Pryer, Esq. [C.].

### 11. *Zosterops erythropleura.*

*Zosterops chloronotus*, *Schrenk, Reis. Amurl. ii. p. 365 (nec V., nec Gould).*

*Zosterops japonica (nec T. & S.), Swinh. Ibis, 1861, pp. 35, 331, 1862, p. 318.*

*Zosterops erythropleura, Swinh. Ibis, 1863, pp. 204, 298; Hartl. J. f. O. 1865, p. 13; Gray, Hand-l. B. i. p. 163, no. 2152 (1869); Swinh. Ibis, 1870, p. 448; id. P. Z. S. 1871, p. 350; Gould, B. Asia, part xxiii. (1871); Taczan. Bull. Soc. Zool. France, i. p. 135 (1875); David & Oustalet, Ois. Chine, p. 85 (1877).*

*Adult female.* General colour above pale grass-green, a little brighter and more yellowish green on the rump and upper tail-coverts; lesser wing-coverts like the mantle; median and greater coverts ashy brown, externally edged with yellowish green; bastard wing dusky; primary-coverts dusky, with narrow greenish edges; quills dusky, edged with yellowish green, a little paler on the primaries; tail-feathers dusky, with yellowish-green margins; crown of the head like the back, but a little yellower; feathers round the eye silky white; in front of the eye a dusky spot, running back in a narrow line below the latter; ear-coverts like the crown; cheeks and throat bright sulphur-yellow; fore neck and chest light bluish grey; breast and abdomen pure white, as well as the sides of the body; flanks with a patch of vinous chestnut; thighs white, dusky behind; under tail-coverts bright sulphur-yellow; under wing-coverts and axillaries white, with a slight tinge of yellow; quills below dusky; inner edge of quills white; "bill brown above, bluish below; legs bluish grey; iris hazel" (*David*). Total length 3·5 inches, culmen 0·5, wing 2·35, tail 1·45, tarsus 0·6.



p. 654 (1879), xvi. p. 81 (1880); *id. Orn. Papuasias etc.* ii. p. 366 (1881).

*Acanthiza citrinella*, *Gray, Hand-l. B. i.* p. 220, no. 3145 (1869).

*Adult male* (type of species). General colour above olive-yellow, brighter and more golden yellow on the rump and upper tail-coverts; wing-coverts golden yellow; bastard-wing feathers olive-brown; primary-coverts olive-yellowish; quills blackish, externally olive-yellow; tail-feathers dusky, with dull olive-yellow margins; crown of head a little more dingy than the back, dull golden olive; lores and extreme base of forehead golden yellow; ring of feathers round the eye silky white; in front of the eye a blackish spot extending below the latter; ear-coverts dull olive-yellow; cheeks, throat, and fore neck bright golden yellow; remainder of under surface very pale ashy, white on the abdomen, which is faintly tinged with yellow; thighs and under tail-coverts bright yellow; under wing-coverts and axillaries white, slightly washed yellow; edge of wing brighter yellow; quills below dusky; inner edge of quills whitish. Total length 5 inches, culmen 0.6, wing 2.5, tail 1.95, tarsus 0.8.

*Hab.* Ké Islands, Moluccas.

a. Ad. sk.

Ké Islands.

A. R. Wallace, Esq. [C.]  
(Type of species.)

#### 14. *Zosterops aureiventer*.

*Zosterops lateralis* (*nec Lath.*), *Hartl. J. f. O.* 1865, p. 15 (*ex Temm. MSS.*); *Gray, Hand-l. B. i.* p. 163, no. 2150 (1869); *Tweedd. Ibis*, 1877, p. 303; *Hume & Davison, Str. F.* 1878, vol. i. p. 452; *Hume, Str. F.* 1879, pp. 65, 104, 497.

*Zosterops aureiventer*, *Hume, Str. F.* 1878, p. 519; *Nicholson, Ibis*, 1880, p. 152.

*Zosterops buxtoni*, *Nicholson, Ibis*, 1879, p. 167.

*Adult male*. Similar to *Z. palpebrosa*, but smaller and rather greener above, and having a very black wing and tail; sides of breast very clear grey; centre of breast and abdomen washed with bright yellow; "bill black; legs and feet slaty blue; iris grey" (*H. O. Forbes*). Total length 3.4 inches, culmen 0.45, wing 1.95, tail 1.1, tarsus 0.55.

*Hab.* From Southern Tenasserim down the Malayan peninsula to Sumatra, Java, and Timor.

a, b. Ad. sk. W. Java (*E. C. Buxton*).

F. Nicholson, Esq. [P.]  
(Types of *Z. buxtoni*.)

c. ♂ ad. sk. Java.

F. D. Godman and O. Salvin, Esqrs. [P.]

d. Ad. sk. Pulo Pinang.

M. Verreaux.

#### 15. *Zosterops everetti*.

*Zosterops everetti*, *Tweedd. P. Z. S.* 1877, pp. 762, 829; *id. ibid.* 1878, pp. 111, 950; *Wardlaw Ramsay, Orn. Works Tweedd.* p. 658 (1881).

*Adult male* (type of species). General colour above dark olive-yellow, rump and upper tail-coverts scarcely lighter; wing-coverts like back, a little yellower on edge of greater coverts; bastard-wing and primary-coverts blackish, the latter edged with olive-yellow; quills blackish, externally olive-yellow, brighter on edge of primaries;

centre tail-feathers dull olive-brown, remainder dusky olive-yellow on outer web; crown of head scarcely yellower than back; lores dusky, with a large spot of bright yellow above; ring of feathers round eye silky white, with a broad line of black below; ear-coverts like the head; cheeks, throat, and fore neck bright yellow; breast, sides of body, and flanks clear ashy grey, with a broad wash of yellow down the centre of the body; lower abdomen whitish; thighs yellow, olive behind; under tail-coverts bright yellow; under wing-coverts and axillaries whitish, washed with yellow, quills below blackish, ashy on their inner edge; "bill—maxilla blackish, mandible and legs pale grey; iris yellowish brown" (*A. Everett*). Total length 4·5 inches, culmen 0·5, wing 2·1, tail 1·5, tarsus 0·65.

The *female* is like the male, but not quite so yellow on the abdomen. Total length 4·2 inches, culmen 0·5, wing 2, tail 1·5, tarsus 0·65.

*Hab.* Philippine Islands.

a. ♂ ad.sk. Dinagat, June (*A. Everett*). Capt. R. G. Wardlaw Ramsay.

### 16. *Zosterops albiventer*.

*Zosterops* à ventre blanc, *Hombr. et Jacq. Voy. Pôle Sud, Atlas*, pl. 19. fig. 3 (1842-53).

*Zosterops* sp., *Gray, Gen. B. i.* p. 198 (1848); *Bp. Consp. i.* p. 398 (1850).

*Zosterops albiventris*, *Reichenb. Handb., Merop.* p. 92, sp. 195, Taf. 461. fig. 3298 (1852); *Jacq. et Pucher. Voy. Pôle Sud, Zool. texte*, iii. p. 95 (1853); *Hartl. J. f. O.* 1854, p. 164; *Rosenb. J. f. O.* 1864, p. 123; *Hartl. J. f. O.* 1865, p. 21; *Gray, Hand-l. B. i.* p. 163, no. 2138 (1869); *Salvad. Ann. Mus. Civic. Genov.* xvi. p. 81 (1880); *id. Orn. Papuasia etc.* p. 366 (1881).

*Zosterops flavogularis*, *Masters, Proc. Linn. Soc. N. S. W.* i. p. 56 (1877); *Ramsay, op. cit.* ii. p. 191 (1878).

*Zosterops luteus* (*nec Gould*), *Forbes, P. Z. S.* 1878, p. 125; *id. Voy. Challenger*, ii. p. 89 (1881).

*Adult female.* General colour above olive-yellow, a little brighter on the rump; lesser wing-coverts like the back; median and greater coverts ashy brown, externally like the back; bastard-wing feathers blackish; primary-coverts and quills ashy brown, externally olive-yellow, a little brighter on the primaries, which are ashy whitish towards the tip of outer webs; inner secondaries externally like the back; tail-feathers dusky brown, with olive-yellow margins, and whitish edges along the inner webs; lores brighter yellow, running from the base of the forehead to above the fore part of the eye; feathers round the eye silvery white, with a dusky blackish spot in front running below the eye; ear-coverts olive-yellow; cheeks, throat, and fore neck bright yellow; remainder of the under surface pale ashy, whiter in the centre of the breast and abdomen, the latter faintly washed with yellow; sides of the body and flanks light ashy like the breast; thighs yellow, externally dusky olive; under tail-coverts bright yellow; under wing-coverts and axillaries white, faintly tinged with yellow; edge of the wing bright yellow; quills below dusky; inner edge of quills white. Total length 4·6 inches, culmen 0·5, wing 2·3, tail 1·75, tarsus 0·7.

*Adult male.* Similar to the female described, but a little brighter; more washed with yellow on the breast; and the flanks with a very faint isabelline tinge. Total length 4·8 inches, culmen 0·55, wing 2·45, tail 1·7, tarsus 0·7.

*Hab.* Cape Grenville and islands of Torres Straits.

- |              |  |                                   |
|--------------|--|-----------------------------------|
| a. ♀ ad. sk. | Eagle Islet, August 1, 1848  | Gould Collection.                 |
|              | ( <i>J. Macgillivray</i> ).  |                                   |
| b. ♂ ad. sk. | Murray Island.   | Rev. J. Macfarlane [C.].          |
| c. ♀ ad. sk. | Booby Island ( <i>J. Murray</i> ).                                 | Voy. of H.M.S. 'Chal-<br>lenger.' |
| d. ♀ ad. sk. | West Isl., Torres Straits, Sept.<br>1881 ( <i>Dr. Coppinger</i> ). | Voy. H.M.S. 'Alert.'              |

### 17. *Zosterops crissalis*.

*Adult.* General colour above yellowish green, the rump scarcely yellower than the back; wing-coverts like the back; bastard-wing feathers black; primary-coverts and quills black, externally edged with yellowish green, a little brighter on the primaries; upper tail-coverts dull olive-yellow; tail-feathers black, edged with dull olive-yellow; crown of the head like the back, with a little brighter and more orange shade on the lores; ring of feathers round the eye silky white; in front of the eye a spot of dusky blackish, extending backwards below the eye; ear-coverts yellowish green; cheeks brighter yellow, posteriorly tinged with green; throat and fore neck bright sulphur-yellow, yellowish green on the sides of the neck and sides of the breast; remainder of the under surface whitish, the breast slightly tinged with isabelline brown like the sides of the body and flanks; centre of the abdomen washed with clear yellow; thighs yellowish, rather greener behind; under tail-coverts bright yellow; under wing-coverts and axillaries white, the latter slightly tinged with yellow; edge of the wing brighter yellow; quills dusky below, inner edges ashy whitish. Total length 4 inches, culmen 0·5, wing 2·2, tail 1·6, tarsus 0·6.

*Hab.* South-eastern New Guinea.

- |               |  |                     |
|---------------|--|---------------------|
| a, b. Ad. sk. | Astrolabe Mountains,<br>S.E. New Guinea. | Mr. A. Goldie [C.]. |
|---------------|--|---------------------|

### 18. *Zosterops palpebrosa*.

*Sylvia palpebrosa*, *Temm. Pl. Col.* 293. fig. 3 (1824).

*Zosterops maderaspatensis*, *Jerd. Madr. Journ.* xi. p. 7 (1840).

*Zosterops nicobarica*, *Blyth, J. A. S. Beng.* xiv. p. 563 (1845); *Gray, Gen. B.* i. p. 193 (1848); *Bp. Consp.* i. p. 399 (1850); *Gray, Hand-l. B.* i. p. 163, no. 2149 (1869).

*Zosterops palpebrosus*, *Blyth, J. A. S. Beng.* xiv. p. 44 (1846); *Gray, Gen. B.* i. p. 198 (1848); *Blyth, Cat. B. Mus. As. Soc.* p. 220 (1849); *Bp. Consp.* i. p. 398 (1850); *Kelaart, Prodr. Cat.* p. 121 (1852); *Layard, Ann. & Mag. Nat. Hist.* 1853. p. 267; *Horsf. & Moore, Cat. B. E.I. Co. Mus.* ii. p. 265 (1854); *Jerd. B. Ind.* ii. p. 265 (1863); *Hartl. J. f. O.* 1865, p. 14; *Blyth, Ibis*, 1867, p. 33; *Beavan, t. c.* p. 328; *Stoliczka, J. A. S. Beng.* xxxvii. p. 51 (1868); *Beavan, Ibis*, 1868, p. 82; *Tytler, t. c.* p. 197; *Pelz. t. c.* p. 311; *Brooks, Ibis*, 1869, p. 57; *Gray, Hand-l. B.* i. p. 162, no. 2122 (1869);

- Godwin-Austen, J. A. S. Beng.* xxxviii. p. 109 (1870); *Holdsw. P. Z. S.* 1872, p. 453; *Hume, Nests & Eggs Ind. B.* p. 397 (1873); *Cock & Marsh. Str. F.* 1873, p. 356; *Adam, t. c.* p. 384; *Hayes Lloyd, Ibis*, 1873, p. 412; *Legge, Ibis*, 1874, p. 22; *Walden, t. c.* p. 143; *Ball, Str. F.* 1874, p. 417; *Hume, Str. F.* 1875, p. 143; *Brooks, t. c.* p. 252; *Hume, t. c.* p. 491; *Butler, t. c.* p. 491; *Blyth & Wald. B. Burm.* p. 110 (1875); *Fairb. Str. F.* 1876, p. 260; *Hume, t. c.* p. 463; *Fairb. S. F.* 1877, p. 407; *Dauids. & Wenden, S. F.* 1878, p. 84; *Ball, t. c.* p. 202; *Anders. Zool. Exped. Yunnan*, p. 631 (1878); *Butler, Cat. B. Sind &c.* p. 42 (1879); *Legge, B. Ceylon*, p. 582 (1879); *Hume, Str. F.* 1879, p. 104; *Scully, t. c.* p. 322; *Vidal, Str. F.* 1880, p. 69; *Butler, t. c.* p. 413; *Hume, t. c.* p. 505; *Butler, Cat. B. South. Bomb. Pres.* p. 57 (1880).
- Zosterops japonicus* (*nec T. & S.*), *Swinh. Ibis*, 1861, p. 35.
- Zosterops simplex*, *Swinh. Ibis*, 1861, p. 331, 1863, p. 294; *Hartl. J. f. O.* 1865, p. 13; *Swinh. Ibis*, 1866, p. 121; *Gray, Hand-l. B. i.* p. 163, no. 2151 (1869); *Swinh. Ibis*, 1870, p. 348; *Gould, B. Asia*, part xxiii. (1871); *Swinh. P. Z. S.* 1871, p. 349; *David & Oustalet, Ois. Chine*, p. 85 (1877); *Hume, Str. F.* 1878, vol. ii. p. 403; *id. Str. F.* 1879, p. 104.
- Zosterops nicobariensis*, *Hume, Str. F.* 1874, p. 242, 1879, p. 104.
- Zosterops palpebrosa nicobariensis*, *Hume, Str. F.* 1876, p. 291.

*Adult.* General colour above olive-yellow, a little brighter on the rump and upper tail-coverts; wing-coverts like the back; bastard-wing feathers dusky; primary-coverts and quills dusky, edged with olive-yellow, a little brighter on the primaries; tail-feathers light dusky brown with olive-yellow margins, inner webs narrowly fringed with whitish; crown of head slightly richer olive-yellow than the back; lores and base of forehead golden yellow; ring of feathers round the eye silky white; in front of the eye a black spot, extending in a narrow line below the eye; ear-coverts olive-yellow; cheeks and throat golden yellow; fore neck and breast pale ashy; abdomen a little whiter, and slightly washed with yellow; sides of body and flanks also pale ashy; thighs yellow, white at base; under tail-coverts golden yellow; under wing-coverts and axillaries white, washed with yellow; quills below dusky brown; inner edge of quills whitish; "bill black, base of lower mandible bluish grey; feet dark plumbeous, claws brownish horny; iris yellowish hazel" (*Scully*). Total length 4 inches, culmen 0.45, wing 2.15, tail 1.6, tarsus 0.6.

*Obs.* The birds from the Eastern Himalaya seem slightly larger and greener in colour above, as well as rather darker ashy below.

The Nicobar bird does not seem to be really different, as some of the Himalayan specimens have bills quite as large as the Nicobar ones.

As regards the Chinese bird (*Z. simplex* of Swinhoe), I cannot say more than that it appears to be a permanently greener form than the Indian bird; but it can, however, be matched by specimens from different parts of India.

*Hab.* All over India from the Himalayas to Ceylon, with the Laccadives; Burmese countries eastwards into South China; Andaman Islands and Nicobars.

<i>a.</i> Ad. sk.	Ceylon.	E. L. Layard, Esq. [C.].
<i>b.</i> ♀ ad. sk.	Coonoor, Neilgherries,	W. Davison, Esq. [P.].
	Oct. 6. 1881.	

<i>c.</i> Ad. sk.	Neilgherries.	India Museum.
<i>d.</i> Ad. sk.	Deccan ( <i>Burgess</i> ).	Gould Collection.
<i>e, f.</i> Ad. sk.	Khandeish.	India Museum.
<i>g.</i> ♂ Ad. sk.	50 miles north of Elloor.	W. T. Blanford, Esq. [P.].
<i>h.</i> ♀ ad. sk.	Simla, July 1866 ( <i>Beavan</i> ).	Gould Collection.
<i>i.</i> Ad. sk.	Syree, Simla.	E. W. Oates, Esq.
<i>k, l, m, n.</i> Ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
<i>o, p.</i> Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
<i>q, r.</i> Ad. sk.	Nepal ( <i>Hodgson</i> ).	India Museum.
<i>s, t.</i> ♂ ♀ ad. sk.	Behar.	B. H. Hodgson, Esq. [P.].
<i>u.</i> Ad. sk.	Darjiling ( <i>Jerdon</i> ).	C. Bygrave Wharton, Esq. [P.].
<i>v.</i> Ad. sk.	Assam ( <i>McClelland</i> ).	India Museum.
<i>w.</i> Ad. sk.	Tenasserim.	J. C. D. Packman, Esq. [P.].
<i>x, y.</i> ♀ ad. sk.	Lower Pegu, Jan. 1880.	E. W. Oates, Esq. [C.].
<i>z.</i> ♂ ad. sk.	Lower Pegu, March 10, 1880.	E. W. Oates, Esq. [C.].
<i>a'.</i> ♂ ad. sk.	Momien, Yun-nan, 5500 feet, July 1868.	Dr. J. Anderson [C.].
<i>b'.</i> ♀ ad. sk.	Tillangehong, Nicobars, March 10, 1873 ( <i>W.</i> <i>Darison</i> ).	A. O. Hume, Esq. [P.].
<i>c'.</i> ♀ ad. sk.	Nancowry Island, Nico- bars, Jan. 1874 ( <i>Capt.</i> <i>Wimberley</i> ).	R. B. Sharpe, Esq. [P.].
<i>d'.</i> ♀ ad. sk.	S. Andaman, Dec. 3, 1873 ( <i>Capt. Wimberley</i> ).	R. B. Sharpe, Esq. [P.].
<i>e'.</i> Ad. sk.	Tientsin.	Purchased.
<i>f'.</i> Ad. sk.	Fokien.	Gould Collection.
<i>g', h'.</i> ♂ ♀ ad. sk.	Amoy ( <i>R. Swinhoe</i> ).	Gould Collection.
<i>i'.</i> Ad. sk.	Amoy ( <i>R. Swinhoe</i> ).	F. Godman and O. Salvin, Esqrs. [P.].
<i>k'.</i> Bones, various.	Nepal.	B. H. Hodgson, Esq. [P.].

19. *Zosterops subrosea*.

*Zosterops subroseus*, *Swinh.* *P. Z. S.* 1870, p. 132; *id.* *P. Z. S.* 1871, p. 350; *David & Oustalet, Ois. Chine*, p. 86 (1877).

Close to *Z. simplex* of South China in general colour and appearance: has a shorter and straighter bill: a yellow forehead: a black line from above the rictus to the fore angle of the eye, encroaching on the white ring; its wing is edged with darker green; its axillaries white, with less yellow on the carpal edge; its underparts greyish white; bluer grey on the sides of the breast, and dingier on the flanks; but the great mark of difference is in its having its belly and the sides thereof washed with a pretty rose-colour. Bill indigo-black on upper mandible and apical third of lower, basal two thirds pale indigo-grey; irides light reddish brown, with whitish outer ring; legs light lavender-lead, with dingy yellowish soles and under surface of claws. Length of male about 4 inches, wing 2.25, tail 1.7, tarsus 0.6 (*Swinhoe*).

*Hab.* Hankow, Central China.

20. *Zosterops citrinella*.

*Zosterops citrinella*, *Bp. Consp.* i. p. 398 (1850, *ex Müll. MS. in Mus. Lugd.*); *Gray, P. Z. S.* 1858, p. 175; *Wallace, P. Z. S.* 1863, p. 485; *Hartl. J. f. O.* 1865, p. 22; *Finsch, Neu-Guinea*, p. 164 (pt.); *Gray, Hand-l. B. i.* p. 163, no. 2146 (1869).

*Adult female.* General colour above olive-yellow, with concealed grey bases to the feathers of the rump; a little brighter yellow on the upper tail-coverts; wing-coverts like the back; bastard-wing feathers blackish; quills dusky, externally olive-yellow; tail-feathers light brown, edged with olive on the outer web, and with ashy whitish along the inner one; crown of the head a little brighter than the back, and with obsolete shaft-lines of paler yellow on the fore part of the crown; lores and base of the forehead orange-yellow; feathers round the eye silky white, with a dusky spot in front of the eye, extending below the eye in a blackish line; ear-coverts dull olive-yellow; cheeks and throat bright golden yellow, extending a little over the fore neck, but much duller; breast and abdomen ashy whitish, greyer on the sides of the body; the flanks faintly tinged with isabelline; thighs yellowish, externally dusky; under tail-coverts bright yellow; under wing-coverts and axillaries dull white, washed with yellow; quills light brown below, inner edges whitish. Total length 3·7 inches, culmen 0·45, wing 2·1, tail 1·35, tarsus 0·7.

*Male.* Similar to the female, but a little brighter in colour. Total length 4·2 inches, culmen 0·55, wing 2·2, tail 1·55, tarsus 0·6.

This bird is merely a race of *Z. palpebrosa*, and only differs in having the flanks pale isabelline instead of ashy.

*Hab.* Island of Timor.

- a. ♀ ad. sk. Timor, June 1829 (*S. Müller*). Gould Collection.  
 b. ♂ ad. sk. Timor. A. R. Wallace, Esq. [C.]

21. *Zosterops abyssinica*.

*Zosterops abyssinica*, *Guérin, Rev. Zool.* 1843, p. 162; *id. & Lafr. in Ferr. et Galin. Voy. Abyss.*, *Zool.* iii. pl. 9, fig. 3 (1847); *Gray, Gen. B. i.* p. 198 (1848); *Bp. Consp.* i. p. 399 (1850); *Gray, Hand-l. B. i.* p. 162, no. 2130 (1869); *Blunf. Geol. & Zool. Abyss.* p. 355 (1870); *Finsch, Tr. Z. S.* vii. p. 239 (1870).

*Sylvia madagascariensis* (*nec L.*), *Des Murs in Lefebvr. Voy. Abyss.* p. 92 (1845).

*Zosterops madagascariensis*, *Rüpp. Syst. Uebers.* p. 57 (1845); *Heugl. Syst. Uebers.* p. 24, no. 199 (1856).

*Zosterops lateralis*, pt., *Heugl. Ibis*, 1861, p. 358 (*nec Lath.*).

*Zosterops capensis*, pt., *Heugl. Ibis*, 1861, p. 358 (*nec Sund.*).

*Zosterops habessinica*, *Heugl. J. f. O.* 1862, p. 42; *Hartl. J. f. O.* 1865, p. 9; *Heugl. Orn. N.O.-Afr.* i. p. 413, iv. pl. cx. (1869-71); *Scl. & Hartl. P. Z. S.* 1881, p. 168; *Hartl. t. e.* p. 954.

*Adult female.* General colour above pale green, a little lighter on the rump; lesser wing-coverts like the back; median and greater coverts, bastard-wing, and primary-coverts ashy brown, externally edged with green; quills dusky, edged with yellowish green, lighter on the primaries; upper tail-coverts like the rump; tail-feathers



pale dusky brown, with narrow greenish edges; crown of the head like the back; lores and the extreme base of the forehead pale sulphur-yellow; feathers round the eye silky white; in front of the eye a dusky spot, extending in a narrow line below the latter; ear-coverts green like the head; cheeks and throat pale sulphur-yellow; fore neck, breast, the sides of the body, flanks, and thighs pale isabelline; under tail-coverts pale sulphur-yellow; under wing-coverts and axillaries ashy whitish, washed with yellow; quills below dusky brown; inner edge of quills ashy whitish; "bill fleshy, culmen blackish; feet dusky horny, iris pale dusky" (*Heuglin*). Total length 4 inches, culmen 0.45, wing 2.15, tail 1.55, tarsus 0.65.

*Adult male.* Total length 4.4 inches, culmen 0.5, wing 2.15, tail 1.7, tarsus 0.65.

According to Heuglin the female is a little duller in colour than the male.

*Z. abyssinica* is only a dull greenish race of *Z. palpebrosa* with very pale sulphur-yellow throat and with an isabelline tinge on the flanks; ear-coverts greenish like the head.

*Hab.* Abyssinia, from 3000 to 10,000 feet, extending northwards into Bogos Land, and south to Wadla and Taranta. Island of Socotra.

- a. ♀ ad. sk. Mayen, Senafé Pass, Abyssinia, W. T. Blanford, Esq.  
Feb. 19, 1868. [C.]  
b, c. ♂ ♀ ad. sk. Socotra, March 1880 (*Balfour*). British Assoc. [P.]

## 22. *Zosterops poliogaster.*

*Zosterops euryophthalma*, *Heugl. Syst. Uebers.* p. 24, no. 200 (1856, *descr. nullâ*).

*Zosterops poliogastra*, *Heugl. Ibis*, 1861, p. 357, pl. 13; *id. J. f. O.* 1862, pp. 42, 299; *Hartl. J. f. O.* 1865, p. 9; *Gray, Hand-l. B.* i. p. 163, no. 2156 (1869); *Heugl. Orn. N. O.-Afr.* i. p. 412 (1869); *Blanf. Geol. & Zool. Abyss.* p. 354 (1870).

*Zosterops atmorii*, *Sharpe, ed. Layard's B. S. Afr.* p. 326 (1876).

*Adult male.* General colour above yellowish green, a little duller on the mantle and back, and lighter on the head and rump; lesser wing-coverts dull yellowish green; median and greater coverts ashy brown, externally yellowish green; bastard-wing feathers, primary-coverts, and quills dusky brown, edged with yellowish green, a little brighter on the primaries; tail-feathers ashy brown, edged with yellowish green on the outer webs, ashy along the edge of the inner webs; crown of the head a little yellower than the back; the lores and fore part of the crown bright golden yellow, extending a little above the eye; ring of feathers round the eye silky white; in front of the eye a black spot, extending backwards below the latter; ear-coverts yellowish green like the head; cheeks and throat bright yellow; fore neck, breast, sides of body, and flanks light ashy, a little more isabelline on the latter; centre of breast and abdomen white; thighs white, washed with yellow, greenish behind; under ail-coverts bright yellow; under wing-coverts and axillaries white,

washed with pale yellow, greener on the edge of the wing; quills below dusky; inner edge of quills whitish. Total length 4·9 inches, culmen 0·5, wing 2·45, tail 1·8, tarsus 0·7.

The female is smaller than the male (*Heuglin*).

*Obs.* *Z. poliogaster* is like *Z. capensis*, and is very dark ashy below, but is distinguished from that species by its bright yellow frontal mark.

*Hab.* N.E. Africa, extending probably along the eastern side of the continent to South-eastern Africa.

a. Ad. sk.	Abyssinia ( <i>Harris</i> ).	India Museum.
b. ♀ ad. sk.	Dongolo, Tigré, May 17, 1868.	W. T. Blanford, Esq. [C.].
c. Ad. sk.	Grahamstown, Jan. 1870 ( <i>T. C. Atmore</i> ).	R. B. Sharpe, Esq. (Type of <i>Z. atmorei</i> .)

### 23. *Zosterops anjuanensis*.

*Zosterops anjuanensis*, *E. Newton*, *P. Z. S.* 1877, p. 297, pl. xxxiii. fig. 1; *Shelley*, *P. Z. S.* 1879, p. 676.

*Adult.* General colour above olive-yellow, brighter on the rump and upper tail-coverts; wing-coverts like the back, a little yellower on the greater coverts; bastard-wing blackish; primary-coverts and quills blackish, edged externally with dull olive-yellow, a little brighter on the primaries, shading to ashy near the end of the outer web; tail-feathers blackish, edged with olive-green near the base, narrowly fringed with ashy along the inner web; crown of the head like the back; lores dusky black, surmounted by a bright spot of yellow which extends onto the base of the forehead; a ring of feathers round the eye silky white, with a dusky line below; ear-coverts dull olive-yellow like the head; cheeks and throat bright yellow; fore neck and breast ashy; abdomen a little paler ashy white towards the vent; sides of the body and flanks pale isabelline; thighs ashy, yellow towards the tarsal joint; under tail-coverts bright yellow; under wing-coverts and axillaries white, slightly washed with yellow; quills below dusky; inner edge of quills whitish. Total length 4·8 inches, culmen 0·5, wing 2·2, tail 1·55, tarsus 0·7. (*Mus. G. E. Shelley*.)

*Obs.* *Z. anjuanensis* is allied to *Z. poliogaster*, but is pale isabelline below, almost as generally uniform underneath as *Z. capensis*. The golden yellow on the forehead, however, distinguishes it from the latter, and the blackness of the wings and tail separate it from *Z. poliogaster*.

*Hab.* Comoro group: Anjuan and Grand Comoro Islands.

### 24. *Zosterops madagascariensis*.

Le Petit Figuier de Madagascar, *Briss. Orn.* iii. p. 498, pl. 28. fig. 2 (1760).

Motacilla maderaspatana, *Linm. Syst. Nat.* i. p. 334 (1766).

Le Cheric, *Buff. Hist. Nat. Ois.* v. p. 279 (1778).

White-eyed Warbler, *Lath. Gen. Syn.* ii. part 2, p. 475 (1783).

Motacilla madagascariensis, *Gm. Syst. Nat.* i. p. 981 (1788).

*Sylvia leucops*, *Bonn. et Vieill. Enc. Méth.* ii. p. 441 (1823).  
*Zosterops madagascariensis*, *Gray, Gen. B.* i. p. 198 (1848); *Bp. Consp.* i. p. 399 (1850); *Reichenb. Handb., Merop.* p. 90, pl. 460. fig. 3280 (c. 1852); *Hartl. Faun. Madag.* p. 40 (1861); *Heugl. Ibis*, 1861, p. 358; *E. Newton, Ibis*, 1863, p. 346; *Scater, P. Z. S.* 1863, p. 163; *Hartl. J. f. O.* 1865, p. 11; *A. Newton, P. Z. S.* 1865, p. 834; *Schl. P. Z. S.* 1866, p. 422; *Grand. Rev. et Mag. de Zool.* 1867, p. 357; *Schl. & Poll. Faun. Madag., Ois.* p. 17, pl. 19. fig. I (1868); *Gray, Hand-l. B. i.* p. 162, no. 2133 (1869); *Sharpe, P. Z. S.* 1870, p. 390; *id. Cat. Afr. B.* p. 36 (1871); *Hartl. Vög. Madag.* p. 102 (1877); *Grand. in Milne-Edwards & Grand. II. N. Madag., Ois.* pl. 113. fig. 2 (1882).

*Adult.* General colour above olive-yellow, a very little lighter on the rump and upper tail-coverts; wing-coverts ashy brown, edged with olive-yellow like the back; bastard-wing feathers blackish; primary-coverts and quills blackish, edged with olive-yellow, a little brighter on the primaries; tail-feathers black, edged with ashy along the inner webs; crown of the head like the back; lores paler, and forming a small golden-yellow streak; feathers round the eye silky white; in front of the eye a black spot, extending a little backwards below the eye; ear-coverts olive-yellow; checks and throat golden yellow; breast and abdomen white, with a slight yellow tinge; fore neck, chest, sides of the body, and flanks light ashy, with a slight isabelline-brown tinge on the flanks; thighs yellowish white at base, olive-green behind; under tail-coverts bright yellow; under wing-coverts white, slightly washed with yellow; edge of the wing brighter yellow; axillaries white; quills below dusky; inner edge of quills white; bill lead-colour, darker at tip; tarsus lead-colour; iris dark brown. Total length 4.2 inches, culmen 0.5, wing 2.15, tail 1.55, tarsus 0.6.

*Female* like the male. Total length 4.5 inches, culmen 0.5, wing 2.2, tail 1.6, tarsus 0.65.

*Obs.* *Z. madagascariensis* and *Z. capensis* are races belonging to the *Z. palpebrosa* group. The present bird is much paler below than *Z. capensis*, being whitish down the centre of the body, with very light isabelline-brown flanks; the throat and under tail-coverts are brighter yellow, and not of such a greenish yellow as in *Z. capensis*.

*Hab.* Madagascar and Glorioso Islands.

a, b. Ad. sk.	Madagascar.	Purchased.
c. ♀ ad. sk.	Ankafana forest, March 3, 1881.	Rev. W. Deans Cowan [C.].
d. ♀ ad. sk.	Glorioso Island, May 1882 (Dr. Copping).	Voy. of H.M.S. 'Alert.'

## 25. *Zosterops capensis*.

Le Teheric, *Levaill. Ois. d'Afr.* iii. pl. 132 (1802, *nec Buff*)\*; *Sunder. Krit. Framst., Levaill.* p. 39 (1857).

? *Zosterops annulosa*, *Swains. Zool. Ill.* iii. pl. 164.

? *Zosterops flavigula*, *Swains. An. in Menag.* p. 294 (1837).

*Zosterops capensis*, *Sunder. Öfv. K. Vet.-Akad. Förh. Stockholm,*

\* Most unsatisfactory figure.

- 1850, p. 102; *Bp. Consp.* i. p. 399 (1850); *Grill, Zool. Anteckn.* p. 38 (1859); *Hartl. J. f. O.* 1865, p. 7; *Layard, B. S. Afr.* p. 116 (1867); *Gray, Hand-l. B.* i. p. 162, no. 2131 (1869); *Sharpe, Cat. Afr. B.* p. 36 (1871); *Gurney, in Anderss. B. Dam.-Ld.* p. 75 (1872); *Sharpe, ed. Layard's B. S. Afr.* p. 322 (1876).  
*Zosterops madagascariensis* (*nec L.*), *Cub. Mus. Hein.* Th. i. p. 115 (1850); *Hobbs & Von Pelzeln, Beitr. Orn. Sudaf.* p. 75 (1882).  
*Zosterops levaillanti, Reichenb. Handb., Merop.* p. 89, pl. 460. figs. 3285, 3286 (c. 1852).

*Male.* General colour above dull green, yellower on the rump and upper tail-coverts; wing-coverts a little duller than the back, dusky brown, externally dull green; bastard-wing and primary-coverts dusky brown, narrowly edged with green; quills dusky, edged with yellowish green, a little brighter than the back; upper tail-coverts olive-green; tail-feathers dusky, with green margins; forehead yellower than the crown of the head; lores black, extending below the eye; feathers round the eye white; ear-coverts dull green; fore part of cheeks yellow; hinder part green, like the sides of the neck; throat and fore neck yellow; breast ashy grey, whiter on the abdomen; sides of the body and flanks light earthy brown; thighs white, washed with yellow; under tail-coverts brighter yellow; under wing-coverts and axillaries white, washed with yellow, brighter on the edge of the wing; quills dusky below, inner edges whitish. Total length 4·2 inches, culmen 0·5, wing 2·15, tail 1·75, tarsus 0·7.

*Female.* Similar to the male. Total length 4·7 inches, culmen 0·5, wing 2·3, tail 1·7, tarsus 0·75.

*Obs.* *Z. capensis* is a race of *Z. madagascariensis*, and not easily separable; it is, however, a generally darker bird.

*Hab.* South Africa.

<i>a, b.</i> Ad. sk.	South Africa.	Sir A. Smith [C.].
<i>c.</i> Ad. sk.	South Africa ( <i>E. L.</i> <i>Layard</i> ).	R. B. Sharpe, Esq.
<i>d.</i> ♀ ad. sk.	Table Mountain, Nov. 30, 1861 ( <i>C. J. Andersson</i> ).	R. B. Sharpe, Esq.
<i>e.</i> ♂ ad. sk.	Knysna, Jan. 6, 1866 ( <i>C. J. Andersson</i> ).	R. B. Sharpe, Esq.
<i>f.</i> Ad. sk.	Kingwilliamstown.	Capt. H. Trevelyan [P.].
<i>g.</i> Ad. sk.	Port Elizabeth.	R. B. Sharpe, Esq.

## 26. *Zosterops explorator.*

*Zosterops explorator, Layard, P. Z. S.* 1875, p. 29; *id. Ibis*, 1876, pp. 140, 153, 392; *Finsch, P. Z. S.* 1877, p. 734; *id. Report Voy. Challenger*, ii. p. 48, pl. 14. fig. 2 (1881).

*Adult female* (type of species). General colour above olive-yellow, a little brighter on the rump and upper tail-coverts, greener on the mantle, upper back, and lesser wing-coverts; median and greater coverts dusky, with olive-greenish margins; bastard-wing feathers black; primary-coverts dusky, edged with olive-greenish; quills dusky, margined externally with olive-green, yellower on the primaries; tail-feathers dusky brown, edged externally with olive-

yellow, and narrowly fringed with whitish along the inner web; crown of the head a little yellower than the back; lores and base of the forehead bright yellow; a ring of feathers round the eye silky white, with a dusky spot in front extending backwards below the eye; ear-coverts olive-yellowish, with paler shaft-lines; cheeks, sides of the neck, throat, fore neck, and breast brighter yellow; abdomen ashy white, with a slight yellowish wash; sides of the body and flanks light ashy brown; thighs yellow, externally dusky greenish; under tail-coverts brighter yellow; under wing-coverts and axillaries white, slightly washed with yellow; edge of the wing yellow; quills dusky below, inner edges white; "bill livid dark blue, tip black, base of lower mandible white; legs and feet dark blue; iris brown" (*E. L. Layard*). Total length 4.5 inches, culmen 0.55, wing 2.35, tail 1.55, tarsus 0.75.

*Hab.* Fiji Islands.

<i>a, b.</i> ♀ ad. sk.	Kandavu, Fiji Islands ( <i>J. Murray</i> ).	Voy. of H.M.S. 'Challenger.' (Types of species.)
<i>c.</i> Ad. sk.	Levuka, Ovalau, July 1865.	Julius Brenchley, Esq. [P.].

### 27. *Zosterops ceylonensis*.

*Zosterops annulosus* (*nee Sw.*), *Kelaart, Prodr. Cat.* p. 121 (1822); *Layard, Ann. & Mag. Nat. Hist.* xii. p. 267 (1853); *Legge, J. As. Soc., Ceylon Branch*, 1870-71, p. 29.

*Zosterops ceylonensis*, *Holdsw. P. Z. S.* 1872, p. 459, pl. 20. fig. 2; *Swinh. Ibis*, 1873, p. 228; *Layard, P. Z. S.* 1873, p. 205; *Legge, Ibis*, 1874, p. 22; *Holdsw. t. c.* p. 123; *Legge, Ibis*, 1875, p. 410; *Hume, Str. F.* 1879, p. 104; *Legge, B. Ceylon*, p. 585 (1880).

*Male.* General colour above dull olive-green, scarcely lighter on the rump and upper tail-coverts; wing-coverts like the back, the median and greater coverts a little yellower on their edges; bastard-wing feathers dusky; primary-coverts dull olive-green; quills dusky, externally olive-green, rather yellower on the edges of the primaries; tail-feathers dusky brown, edged with olive-green externally, and whitish along the edge of the inner web; crown of the head rather more dusky than the back; lores not brighter than the crown; a ring of feathers round the eye white; in front of the eye a dusky spot, extending below the latter; ear-coverts olive-green, as well as the cheeks; throat, fore neck, and chest bright olive-yellow, greener on the sides of the breast; breast light ashy grey, as also the sides of the body and flanks; abdomen whiter, with a slight yellow tinge; thighs yellow, dusky behind; under tail-coverts bright yellow; under wing-coverts and axillaries white, tinged with yellow; quills dusky below, inner edges white; "bill blackish, with the base beneath bluish or pale slaty; legs and feet bluish or pale leaden; iris yellowish brown, reddish brown, or pale brownish yellow (variable)" (*Legge*). Total length 4.5 inches, culmen 0.55, wing 2.25, tail 1.8, tarsus 0.65.

*Female.* Similar to the male in colour, but has the yellow of the

throat greener as a rule than the male, and appears to have the eye reddish at times. (*Legge*.)

*Hab.* Hills of Ceylon.

- |              |                          |                                    |
|--------------|--------------------------|------------------------------------|
| a. Ad. sk.   | Nuwara Eliya, Ceylon.    | E. W. H. Holdsworth,<br>Esq. [P.]. |
| b. ♂ ad. sk. | Dimboola, Nov. 15, 1870. | Capt. W. Vincent<br>Legge [P.].    |

### 28. *Zosterops xanthochroa*.

*Zosterops xanthochroa*, *Gray*, *P. Z. S.* 1859, p. 161; *id. Cat. B. Trop. Isl. Pacific Ocean*, p. 16 (1859); *Verr. Rev. et Mag. de Zool.* 1860, p. 435; *Hartl. J. f. O.* 1865, p. 25; *Gray, Hand-l. B. i.* p. 162, no. 2114 (1869); *Marie, Actes Soc. Linn. Bordeaux*, xxvii. p. 327 (1870); *Gray, in Brenchley's Cruise 'Curaçoa,'* p. 366, pl. 7. fig. 2 (1873); *E. L. & L. C. Layard, Ibis*, 1878, p. 259.

*Adult male* (type of species). General colour above grass-green; wing-coverts like the back; bastard-wing feathers black; primary-coverts dusky, externally grass-green; quills dusky, edged with grass-green, yellower on primaries, inclining to ashy whitish towards the ends of the latter; tail-feathers light brown, edged with grass-green; lores paler yellow, forming a short streak; feathers round eye silky white; in front of the eye a black spot, extending in a narrow line below the eye; ear-coverts and cheeks grass-green; throat and fore neck bright yellow; breast pale ashy; abdomen white; the middle of the breast washed with yellow; sides of body and flanks isabelline brown; thighs pale yellow, white at base, externally ashy green; under tail-coverts pale sulphur-yellow; under wing-coverts and axillaries white, edge of wing bright yellow; quills below dusky; inner edge of quills white. Total length 4.3 inches, culmen 0.55, wing 2.3, tail 1.8, tarsus 0.75.

*Female*. Like the male, but a little paler. Total length 4.6 inches, culmen 0.55, wing 2.4, tail 1.9, tarsus 0.7.

*Hab.* New Caledonia.

- |              |  |   |
|--------------|--|---|
| a. ♂ ad. sk. | Nu, Port de France, New<br>Caledonia.                        | J. Macgillivray, Esq. [C.].<br>(Type of species.) |
| b. ♂ ad. sk. | Port de France.  | Julius Brenchley, Esq. [P.].                      |
| c. ♀ ad. sk. | Isle of Pines, Sept. 25,<br>1853 ( <i>J. Macgillivray</i> ). | Gould Collection.                                 |

### 29. *Zosterops griseiventris*.

*Zosterops griseiventris*, *Selater*, *P. Z. S.* 1883, p. 199.

*Adult male* (type of species). General colour above clear olive-yellow, a little duller on the head, rump, and upper tail-coverts; wing-coverts like the back; quills blackish brown, externally olive-yellow like the back, the primaries narrowly edged with brighter yellow; tail-feathers blackish brown, edged externally with olive-yellow and internally with whitish; forehead not perceptibly lighter than the head; a dusky spot in front of the eye extending a little way backwards underneath; above this dusky spot a slightly indi-

eated loreal streak of brighter yellow; ear-coverts and sides of face a little more dingy olive-yellow than the crown; cheeks and throat bright yellow; fore neck, breast, and entire sides of body light ashy grey; centre of breast and abdomen whitish; thighs whitish, washed with yellow; under tail-coverts yellow; under wing-coverts and axillaries white, washed with yellow, the edge of the wing bright yellow; quills dusky below, whitish along the edge of the inner web; "upper mandible pale horny, lower mandible pale horn-colour; iris reddish brown" (*H. O. Forbes*). Total length 4.5 inches, culmen 0.65, wing 2.30, tail 1.75, tarsus 0.75.

*Adult female.* Like the male in colour, but deeper ashy on the flanks. Total length 4.7 inches, culmen 0.65, wing 2.5, tail 1.75, tarsus 0.8.

*Obs.* It will be noticed that the female is larger than the male described. The flanks and sides of the body are decidedly greyer and have not the slight isabelline tint which distinguishes the males from Moloe and Loetoe. It may be that in Larat the species is slightly modified.

*Hab.* Tenimber Islands.

- |              |   |  |
|--------------|---|--|
| a. ♂ ad. sk. | Loetoe, Timor Lant, Sept. 1882 ( <i>H. O. Forbes</i> ). | Brit. Assoc. Comm. [P.].<br>(Type of species.) |
| b. ♂ ad. sk. | Moloe Island, Sept. 1882 ( <i>H. O. Forbes</i> ).       | Brit. Assoc. Comm. [P.].                       |
| c. ♀ ad. sk. | Larat, Aug. 15 ( <i>H. O. Forbes</i> ).                 | Brit. Assoc. Comm. [P.].                       |

### 30. *Zosterops novæ guineæ*.

*Zosterops* sp., *Salvad. Ann. Mus. Civic. Genov.* vii. p. 954 (1875).

*Zosterops novæ guineæ*, *Salvad. Ann. Mus. Civic. Genov.* xii. p. 341 (1878), xvi. p. 81 (1880); *id. Orn. Papuasias etc.* p. 367 (1881).

*Adult male* (Arfak Mountains; Bruijn). General colour above uniform dull olive-yellow, very little brighter on the rump and upper tail-coverts; wing-coverts like the back, a little brighter yellow on the edges of the median and greater coverts; bastard-wing feathers and primary-coverts blackish, the latter slightly edged with olive-yellow; tail-feathers blackish, slightly margined with olive-yellow; crown of the head like the back; lores not perceptibly lighter than the head; in front of the eye a dusky spot, extending backwards below the eye; ring of feathers round the eye silky white; ear-coverts dull olive-yellow; cheeks and throat brighter yellow; fore neck, sides of the body, and flanks dull ashy, with a slight isabelline tinge on the flanks; breast and abdomen whiter; thighs yellow, white at base; under tail-coverts golden yellow; under wing-coverts and axillaries white, washed with yellow; quills below dusky; inner edge of quills ashy whitish. Total length 4.2 inches, culmen 0.5, wing 2.2, tail 1.55, tarsus 0.7. (*Mus. H. B. Tristram*.)

*Hab.* New Guinea and Aru Islands; Amboina and Ceram.

- |            |   |                                       |
|------------|---|---------------------------------------|
| a. Ad. sk. | Aru Islands ( <i>J. T. Cockerell</i> ). | F. D. Godman and O. Salvin,<br>Esqrs. |
|------------|---|---------------------------------------|

31. *Zosterops aureigula*.

*Zosterops albiventer minor*, Meyer, *Sitz. K. Akad. Wien*, lxx. p. 115 (1874).

*Zosterops aureigula*, *Salvad. Ann. Mus. Civic. Genov.* xii. p. 340 (1878), xvi. p. 81 (1880); *id. Orn. Papuasia etc.* p. 368 (1881).

Above greenish yellow; lores dusky; eye-ring white, not very conspicuous; throat very brilliant yellow; under tail-coverts yellow, rather paler; breast and abdomen white; thighs white; quills and tail dusky, externally margined with the same colour as the back; bill dusky; feet lead-colour. Total length 5·3 inches, wing 2·2, tail 1·3, bill 0·4, tarsus 0·55. (*Salvadori*.)

*Hab.* Island of Jobi, in the Bay of Geelvink, N.W. New Guinea.

32. *Zosterops atrifrons*.

*Zosterops atrifrons*, Wallace, *P. Z. S.* 1863, p. 493; *Finsch, Neu-Guinea*, p. 164 (1865); *Gray, Hand-l. B.* i. p. 162, no. 2121 (1869); *Walden, Trans. Z. S.* viii. p. 72, pl. 9. fig. 3 (1874).

*Zosterops nigrifrons*, *Hartl. J. f. O.* 1865, p. 22 (*ex Temm. MS. in Mus. Lugd.*).

*Male* (type of species). General colour above olive-green, yellow on the rump and upper tail-coverts; lesser wing-coverts green like the back, the median and greater coverts a little yellower on the outer margins; bastard-wing feathers blackish; primary-coverts olive-green; quills blackish, externally olive-yellow; inner secondaries like the back; tail-feathers blackish, fringed with ashy brown along the inner web; crown of the head like the back; forehead black, as also are the lores and feathers below the eye; round the eye a ring of silky white feathers; ear-coverts olive-green; cheeks and throat yellowish green, clearer yellow in the middle of the throat; fore neck, chest, sides of body, and flanks light bluish grey, whiter on the abdomen; thighs white, washed with yellow; under tail-coverts sulphur-yellow; under wing-coverts and axillaries and the adjoining flanks white; quills dusky below, inner edges ashy. Total length 4·6 inches, culmen 0·5, wing 2·05, tail 1·5, tarsus 0·55.

*Female*. Similar to the male in plumage. Total length 4·2 inches, culmen 0·45, wing 2·05, tail 1·45, tarsus 0·55.

*Hab.* Celebes.

- |                   |                      |  |
|-------------------|----------------------|--|
| a. ♂ ad. sk.      | Menado, N. Celebes.  | A. R. Wallace, Esq. [C.]<br>(Type of species.) |
| b, c. ♂ ♀ ad. sk. | Tondano, N. Celebes. | A. R. Wallace, Esq. [C.]                       |

33. *Zosterops atricapilla*.

*Zosterops atricapilla*, *Salvad. Ann. Mus. Civic. Genov.* xiv. p. 215 (1879).

Above dull olive-green, the upper tail-coverts brighter; crown of head, lores, and fore part of cheeks dusky black; a white ring round



the eye; fore part of neck greenish yellow, the breast and abdomen cinereous, lemon-yellow along the middle; quills dusky, edged with the same colour as the back; under wing-coverts white; tail dusky black: bill dusky; feet lead-colour; "iris clear brown" (*Beccari*). Total length 4.3 inches, culmen 0.4, wing 2.2, tail 1.5, tarsus 0.6. (*Salvadori*.)

*Hab.* Mount Singalan, Sumatra.

### 34. *Zosterops delicatula*.

*Zosterops frontalis*, *Salvad.* (*nec Müll., nec Reichenb.*), *Ann. Mus. Civic. Genov.* xii. p. 342 (1878), xvi. p. 81 (1880); *id. Orn. Papuasias etc.* ii. p. 369 (1881).

*Zosterops delicatula*, *Sharpe, Journ. Linn. Soc., Zool.* xvi. p. 318; *Salvad. Ann. Mus. Civic. Genov.* xviii. p. 425 (1882).

*Adult* (type of species). General colour above yellowish green, brighter yellow on the rump and upper tail-coverts; lesser wing-coverts like the back; median and greater coverts a little yellower; bastard-wing feathers black; primary-coverts and quills black, externally olive-yellow, a little brighter on the primaries; tail-feathers black; forehead and sinciput black; hinder crown yellowish green like the hinder neck; lores black, as well as the feathers below the eye, running backwards in a narrow line; ring of feathers round the eye silky white; ear-coverts yellowish green; cheeks and throat bright yellow; remainder of under surface pure white; fore neck, sides of body, and flanks delicate ashy grey; thighs pale yellow, externally green; under tail-coverts bright yellow; under wing-coverts and axillaries white with a slight wash of yellow; edge of wing a little brighter yellow; quills below dusky; inner edge of quills ashy white. Total length 4 inches, culmen 0.5, wing 2.25, tail 1.45, tarsus 0.65.

*Obs.* One specimen has the white belly very faintly tinged with yellow, and a slight reddish shade on the chest.

*Hab.* S.E. New Guinea; Aru Islands\*.

*a, b.* Ad. sk.      Astrolabe Mountains, S.E. New Guinea.      Mr. A. Goldie [C.]  
(Types of species.)

### 35. *Zosterops chrysolæma*.

*Zosterops chrysolæma*, *Salvad. Ann. Mus. Civic.* vii. p. 954 (1875), xvi. p. 81; *id. Orn. Papuasias etc.* ii. p. 368 (1881).

*Adult female.* General colour above uniform olive-yellow, only slightly brighter on the rump and upper tail-coverts; lesser wing-coverts like the back; median and greater coverts a little yellower than the back; bastard-wing blackish; primary-coverts and quills blackish, externally olive-yellow, a little brighter on the primaries; tail-feathers black, with a very faint tinge of olive-yellow near the

\* I think my *Z. delicatula* is the same as *Z. frontalis* of *Salvadori*, though the latter does not mention the light ashy colour on the breast. In any case the name *frontalis* cannot stand.

base of the outer webs, the inner webs edged with ashy whitish ; lores and forehead blackish brown, with a line of the same extending below the eye ; ring of feathers round the eye silky white ; ear-coverts olive-yellow ; cheeks and throat bright golden yellow ; fore neck and chest delicate ashy ; centre of the breast, abdomen, sides of the body, and flanks whiter, the latter with a very faint shade of ashy ; thighs yellow, white at the base and dusky behind ; under tail-coverts golden yellow ; under wing-coverts and axillaries white, washed with yellow ; edge of wing bright yellow ; quills below dusky brown ; inner edge of quills whitish. Total length 4 inches, culmen 0·5, wing 2·3, tail 1·55, tarsus 0·6. (*Mus. H. B. Tristram.*)

*Hab.* Arfak Mountains, N.W. New Guinea.

### 36. *Zosterops fuscicapilla.*

*Zosterops fuscicapilla*, *Salvad. Ann. Mus. Civ. Genov.* vii. p. 955 (1875); *Oustalet, Bull. Soc. Philom. Paris*, 1877; *Salvad. Ann. Mus. Civ. Genov.* xvi. p. 82 (1880); *id. Orn. Papuasias etc.* ii. p. 372 (1881).

*Adult female.* General colour above olive-green, a little yellower on the rump and upper tail-coverts ; wing-coverts like the back ; median and greater coverts a little yellower on their edges ; bastard-wing feathers and primary-coverts black, the latter with slight margins of olive-green near the tip ; quills black, narrowly edged with olive-green, yellower on the primaries ; tail-feathers black, narrowly fringed with whitish along the inner webs ; crown of head black ; occiput, nape, and hind neck olive-green like the back ; lores black ; round the eye a ring of silky white ; in front of the eye the feathers blackish, as also a streak below the latter ; ear-coverts dull olive-green, as also the hinder part of the cheeks ; sides of neck olive-green ; throat and under surface of the body brighter yellow, olive-greenish on the sides of the body and flanks ; thighs and under tail-coverts bright yellow ; under wing-coverts and axillaries white, slightly washed with yellow ; quills below dusky ; inner edge of quills whitish. Total length 3·7 inches, culmen 0·45, wing 2·25, tail 1·45, tarsus ·62.

*Hab.* Arfak Mountains, N.W. New Guinea.

*a.* ♀ ad. sk.

Atani, Arfak Mountains.

Mr. Bruijn [C.].

### 37. *Zosterops hypoxantha.*

*Zosterops hypoxantha*, *Salvad. Atti R. Accad. Torino*, xvi. p. 623 (1881); *id. Ann. Mus. Civic. Genov.* xviii. p. 425 (1882).

*Adult.* General colour above olive-yellow, a little brighter on the rump and upper tail-coverts ; lesser wing-coverts like the back ; median and greater coverts ashy brown, edged with olive-yellow ; bastard-wing feathers dusky ; primary-coverts and quills dusky brown, edged with olive-yellow, brighter on the primaries ; tail-feathers dusky brown, edged with olive-yellow ; crown of the head blackish, with faintly indicated paler shaft-streaks ; occiput and nape dull olive-yellow, as well as the sides of the hinder crown ; lores

black; ring of feathers round the eye silky white; ear-coverts blackish; cheeks black; throat and underparts bright golden yellow, a little greenish on the sides of the breast and flanks; thighs and under tail-coverts bright yellow; under wing-coverts and axillaries white, washed with yellow; quills below ashy brown; inner edge of quills yellowish white. Total length 4 inches, culmen 0·5, wing 2·2, tail 1·55, tarsus 0·65.

*Female.* Like the male, but a little duller. Total length 4 inches, culmen 0·5, wing 2·15, tail 1·5, tarsus 0·65.

*Hab.* New Britain.

a, b. ♂ ♀ ad. sk. New Britain (*Kleinschmidt*). Godeffroy Museum.

### 38. *Zosterops flava*.

*Dicaeum flavum*, *Horsf. Trans. Linn. Soc.* xiii. p. 170 (1820).

? *Zosterops maderaspatana*, *Vigors, Mem. Raffl.* p. 661 (1830).

*Zosterops flava*, *Hartl. Verz. Brem. Samml.* p. 37; *Blyth, J. A. S. Beng.* xiv. p. 563 (1845); *Gray, Gen. B.* i. p. 198 (1848); *Bp. Consp.* i. p. 398 (1850); *Horsf. & Moore, Cat. B. E. I. Co. Mus.*

i. p. 263 (1854); *Schl. Handl. Dierk.* p. 274 (1857); *Sclater, P. Z. S.* 1863, p. 219; *Hartl. J. f. O.* 1865, p. 16 (pt.); *Blyth, Ibis*,

1867, p. 33; *Gray, Hand-l. B.* i. p. 162, no. 2119 (1869).

*Zosterops parvula*, *Hombr. et Jacq. Voy. Pôle Sud, Atlas*, pl. 19. fig. 4 (1842-53).

*Zosterops sp.*, *Gray, Gen. B.* i. p. 198 (1848).

*Zosterops montana*, *Bp. Consp.* i. p. 398 (1850)\*.

*Zosterops parvulus*, *Jacq. et Pucher. Voy. Pôle Sud, Texte*, iii. p. 96 (1853); *Hartl. J. f. O.* 1854, p. 164; *Salvad. Ucc. Born.* p. 188 (1874).

*Zosterops melanura*, *Hartl. J. f. O.* 1865, p. 15 (*ex Temm. MS. in Mus. Lugd.*); *Gray, Hand-l. B.* i. p. 164, no. 2164 (1869); *Salvad. Ucc. Born.* p. 189 (1874).

*Adult.* General colour above olive-yellow, rather brighter on the crown and rump and upper tail-coverts; wing-coverts like the back; median and greater coverts dusky ash-brown, externally edged with olive-yellow; bastard-wing feathers dusky; primary-coverts like the greater wing-coverts; quills dusky brown, externally olive-yellow, brighter on the primaries; tail-feathers dark brown, margined with olive-yellow; lores and the base of the forehead pale sulphur-yellow, extending a little above the eye; feathers round the eye silky white; no dusky spot in front of the eye; ear-coverts olive-yellow; cheeks, throat, and underparts bright yellow, very slightly tinged with olive on the sides of the body and flanks; thighs and under tail-coverts light yellow; under wing-coverts and axillaries pale yellow; quills below dusky; inner edge of quills whitish. Total length 4 inches, culmen 0·5, wing 2, tail 1·2, tarsus 0·6.

The Bornean specimens are rather lighter in colour than the typical one from Java, but cannot be specifically separated.

*Hab.* Java, Sumatra, and Borneo.

\* Said to be similar to *Z. flava*, but larger.

a. Ad. sk.	Java ( <i>Horsfield</i> ).	India Museum. (Type of species.)
b, c. Ad. sk.	Banjermassing.	J. Motley, Esq. [C.].

39. *Zosterops meyeri*.

*Dicaeum flavum* (*nec Horsf.*), *Kittl. Kupf. Vög.* pl. 19. fig. 2 (1832);  
*id. Mém. Acad. S. Pétersb.* 1835, pl. 3.

*Sylvia flava*, *Meyen, Acta Acad. Cæs.-Leop. Nat. Cur. xvi., Suppl.*  
p. 203 (1834).

*Zosterops* sp., *Gray, Gen. B. i.* p. 198 (1848).

*Zosterops meyeri*, *Bp. Consp. i.* p. 398 (1850); *Reichenb. Handb.,*  
*Merop.* p. 91, pl. 461. fig. 3294 (c. 1852); *Hartl. J. f. O.* 1865, p. 16;  
*Gray, Hand-l. B. i.* p. 162, no. 2123 (1869); *Walden, Trans. Z. S.*  
ix. p. 199 (1877).

Similar to *Z. flava*, but a little greener, and not having the rump conspicuously brighter yellow; the tail also greener. Total length 3·9 inches, culmen 0·45, wing 1·7, tail 1·45, tarsus 0·6.

*Hab.* Luzon, Philippine Islands.

a. Ad. sk.	Manila, Luzon.	Gould Collection.
b, c. Ad. sk.	Philippine Islands.	Hugh Cuning, Esq. [C.].

40. *Zosterops siamensis*.

*Zosterops siamensis*, *Blyth, Ibis*, 1867, p. 34; *Gray, Hand-l. B. i.*  
p. 162, no. 2120 (1869); *Walden, Ibis*, 1876, p. 350, pl. 10. fig. 1;  
*Hume & Davison, Str. F.* 1878, p. 375; *Hume, Str. F.* 1879, p. 104;  
*Oates, B. Brit. Burm. i.* p. 343 (1883).

*Zosterops palpebrosa* (*nec T.*), *Tickell MSS., teste Walden, Ibis*, 1876,  
p. 350.

*Zosterops austeni*, *Walden, in Blyth B. Burm.* p. 111 (1875); *Hume*  
& *Davison, Str. F.* 1878, p. 376; *Hume, Str. F.* 1879, p. 104.

*Adult male.* General colour olive-yellow, a little duller on the mantle, back, scapulars, and lesser wing-coverts; median and greater coverts dusky, margined with deeper olive-yellow, somewhat orange in tint; bastard-wing and primary-coverts dusky, the former tipped, the latter edged, with olive-yellow; quills dusky brown, externally edged with olive-yellow, the inner secondaries entirely dull olive-yellow; rump and upper tail-coverts brighter olive-yellow than the back; tail-feathers dusky, externally margined with dull olive-yellow, and with whitish along the inner web; crown of head, nape, and hind neck a little richer olive-yellow than the back; lores and base of forehead much brighter yellow; ring of feathers round eye white; in front of the eye a dusky spot, extending backwards in a narrow line below the eye; ear-coverts olive-yellow; cheeks, throat, fore neck, and breast golden yellow; abdomen a little paler; sides of body and flanks slightly tinged with olive, the latter with a concealed patch of silky white, caused by the bases of the lateral feathers; thighs and under tail-coverts bright yellow; under wing-coverts and axillaries pale yellow, with whitish bases; quills below dusky; inner edge of quills ashy whitish; "upper mandible and lower mandible from tip to angle of gonys black, rest of lower

mandible pale plumbeous: legs, feet, and claws pale plumbeous, sometimes greenish plumbeous; iris pale brown to pale yellowish or ochre-brown" (*Daivison*). Total length 4 inches, culmen 0·45, wing 1·95, tail 1·4, tarsus 0·6.

*Female*. Similar to the male, but a little paler and greener in colour. Total length 4 inches, culmen 0·45, wing 1·95, tail 1·4, tarsus 0·55.

*Obs.* Scarcely separable from *Z. senegalensis*, but rather smaller, with a larger black spot in front of the eye. The African bird has a more distinct yellow patch extending along the sides of the crown and forming an eyebrow, which is not seen in the Siamese bird.

*Hab.* Siam, extending into the Burmese countries.

<i>a, b.</i> ♂; <i>c.</i> ♀ ad. sk.	Lower Pegu, Jan. 1879.	E. W. Oates, Esq. [C.].
<i>d.</i> ♀ ad. sk.	Lower Pegu, Feb. 1880.	E. W. Oates, Esq. [C.].
<i>e, f.</i> ♂; <i>g, h.</i> ♀ ad. sk.	Lower Pegu, March 1880.	E. W. Oates, Esq. [C.].
<i>i, k.</i> Ad. sk.	Tenasserim ( <i>Blyth</i> ).	Gould Collection.

#### 41. *Zosterops senegalensis*.

*Zosterops flava*, *Swains. B. W. Afr.* ii. p. 43, pl. 3 (1837, *nec Horsf.*).

*Zosterops citrina*, *Hartl. Beitr. Orn. W.-Afr.* p. 22 (1848).

*Zosterops* sp., *Gray, Gen. B.* i. p. 198 (1848).

*Zosterops senegalensis*, *Bp. Consp.* i. p. 399 (1850); *Reichenb. Handb., Merop.* p. 90, Taf. 463. fig. 3288 (c. 1852); *Hartl. Orn. W.-Afr.* p. 71 (1857); *id. J. f. O.* 1861, p. 161; *Heugl. Ibis*, 1861, p. 360; *Hartl. J. f. O.* 1865, p. 10; *Heugl. Orn. N.O.-Afr.* i. p. 414 (1869); *Gray, Hand-l. B.* i. p. 162, no. 2126 (1869); *Sharpe, Cat. Afr. B.* p. 36 (1871); *Gurney in Anderss. B. Dam. Ld.* p. 76 (1872); *Sharpe, ed. Layard's B. S. Afr.* p. 325 (1876); *Bocage, Orn. Angola*, p. 288 (1877); *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 99 (1881).

*Zosterops aurifrons* (*nec Temm.*), *Heugl. J. f. O.* 1862, p. 41.

*Zosterops icterovirens*, *Pr. Würtemb. Icon. ined.*; *Heugl. J. f. O.* 1862, p. 295; *Gray, Hand-l. B.* i. p. 163, no. 2161 (1869).

*Zosterops pallescens*, *Heugl. J. f. O.* 1864, p. 259.

*Zosterops tenella*, *Hartl. J. f. O.* 1865, p. 11; *Gray, Hand-l. B.* i. p. 163, no. 2157 (1869); *Cab. J. f. O.* 1878, p. 228; *Fischer & Reichenow, J. f. O.* 1879, p. 349.

*Zosterops heughini*, *Hartl. J. f. O.* 1865, p. 11; *Gray, Hand-l. B.* i. p. 163, no. 2158 (1869).

*Adult*. General colour above bright olive-yellow, a little lighter on the rump and upper tail-coverts; wing-coverts like the back; greater coverts, bastard-wing, and primary-coverts pale brown, edged with olive-yellow; quills dusky brown, edged with brighter yellow; secondaries margined with olive-green; tail-feathers light brown, with yellowish margins; lores black, extending in a line below the eye; feathers round eye white; ear-coverts olive-yellow, as also hind cheeks; fore part of the cheeks and under surface of the body bright yellow, slightly washed with olive on the sides of the body and flanks; breast tinged with orange in old birds; thighs and under tail-coverts yellow; under wing-coverts and axillaries yellow, whitish at base; edge of wing yellow; quills below dusky; inner

edge of quills ashy whitish. Total length 3·6 inches, culmen 0·45, wing 2·1, tail 1·3, tarsus 0·6.

An adult male from Elephant Vley measures as follows:—Total length 4·5 inches, wing 2·45, tail 1·8, tarsus 0·65.

*Hab.* All over Africa south of the Sahara desert, excepting the forest country of the west coast and the extreme southern part of the continent.

<i>a.</i> Ad. sk.	River Gambia.	Purchased.
<i>b, c.</i> Ad. sk.	River Gambia.	R. B. Sharpe, Esq.
<i>d, e.</i> ♂ ad. sk.	N'di, Taita, E. Africa.	Dr. Hildebrandt [C.].
<i>f, g.</i> ♂ ad. sk.	Elephant Vley (C. J. Andersson).	R. B. Sharpe, Esq.

#### 42. *Zosterops kirki*.

*Zosterops kirki*, *Shelley, P. Z. S.* 1879, p. 676.

Very similar to *Z. senegalensis*, but rather more greenish yellow above and on the ear-coverts. Total length 3·7 inches, culmen 0·35, wing 2·1, tail 1·5, tarsus 0·65. (*Mus. G. E. Shelley*.)

*Hab.* Grand Comoro Island.

#### 43. *Zosterops virens*.

*Zosterops virens*, *Bp. Consp. i.* p. 399 (1850, *ex Sund. Mus. Holm.*); *Heugl. Ibis*, 1861, p. 360; *Gurney, Ibis*, 1863, p. 328; *Layard, B. S. Afr.* p. 110 (1867); *Gray, Hand-l. B. i.* p. 162, no. 2129 (1869); *Sharpe, ed. Layard's B. S. Afr.* p. 325 (1876); *Barratt, Ibis*, 1876, p. 202; *Ayres, t. c.* p. 426; *id. Ibis*, 1879, p. 405; *Bocage, Journ. Lish.* 1880, p. 5.

*Adult.* General colour above grass-green, a little yellower on the upper tail-coverts; wing-coverts like the back; bastard-wing uniform dusky brown; primary-coverts dusky, externally grass-green; quills dusky brown, externally edged with green, a little lighter than the back; tail-feathers dusky brown, margined with green; lores black; base of forehead bright yellow; feathers round eye white, with narrow black lines underneath; ear-coverts green like the back; fore part of cheeks bright yellow, hinder part green like the sides of the neck; throat bright yellow; fore neck and chest yellowish green; breast and abdomen bright yellow; sides of body and flanks green; thighs and under tail-coverts bright yellow; under wing-coverts and axillaries pale yellow, whitish at base; quills below dusky; inner edge of quills whitish; "bill ash-colour, black at tip; tarsi and feet ash-colour; iris tawny" (*F. A. Barratt*). Total length 4·7 inches, culmen 0·5, wing 2·4, tail 1·9, tarsus 0·75.

*Female.* Like the male, but a little duller in colour. Total length 4·5 inches, culmen 0·5, wing 2·45, tail 1·8, tarsus 0·7.

*Hab.* South-eastern Africa, extending north as far as the Zambesi.

<i>a.</i> Ad. sk.	South Africa.	Sir A. Smith [C.].
<i>b, c, d.</i> Ad. sk.	Kingwilliamstown.	Capt. H. Trevelyan [P.].
<i>e.</i> ♀ ad. sk.	Natal.	T. Ayres, Esq. [C.].

- f, g.* ♂ ♀ ad. sk. Pinetown, Natal (*T. L. R. B. Sharpe, Esq. [P.].*  
*Ayres*).
- h.* ♂; *i, k.* ♀ ad. Lydenburg. F. A. Barratt, Esq. [C.].  
sk.
- l.* ♀ ad. sk. Macamac (*T. L. Ayres*). J. H. Gurney, Esq. [P.].

44. *Zosterops lutea*.

*Zosterops lutea*, *Gould, B. Austr.* fol. pl. 83 (1848); *Gray, Gen. B. i.* p. 193 (1848); *Bp. Consp.* i. p. 398 (1850); *Reichenb. Vög. Neuholl.* p. 84 (1850); *id. Handb., Merop.* p. 95, pl. 463, figs. 3312-13 (1852); *Gould, Handb. B. Austr.* i. p. 590 (1865); *Finsch, Neu-Guinea*, p. 164 (1865); *Hartl. J. f. O.* 1865, p. 25; *Gray, Hand-l. B. i.* p. 163, no. 2135 (1869); *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 191 (1878).

*Adult.* General colour above olive-yellow; lesser wing-coverts like the back; median and greater coverts ashy, externally olive-yellow; bastard-wing feathers blackish; primary-coverts and quills dusky ashy brown, externally olive-yellow, a little brighter on the primaries; tail-feathers dusky ashy brown, externally olive-yellow, internally edged with whitish; crown of head like the back; lores and base of forehead bright yellow; feathers round eye silky white; in front of the eye a dusky spot, extending in a narrow line below the eye; ear-coverts olive-yellow like the back; cheeks and under surface of body bright yellow, with a slight olive tinge on the sides of the body and flanks; thighs and under tail-coverts bright yellow; under wing-coverts and axillaries white, strongly washed with yellow; edge of wing bright yellow; quills below dusky; inner edge of quills yellowish white; "upper mandible blackish grey, basal half rather lighter; apical third of lower mandible blackish grey, basal two thirds light ashy grey; legs and feet bluish grey; iris light reddish brown" (*Gould*). Total length 4 inches, culmen 0.5, wing 2.25, tail 1.6, tarsus 0.65.

*Hab.* North Australia.

- a.* Ad. sk. Cape York (*J. T. Cocke- F. D. Godman and O. Salvin,*  
*vell.* Esqrs. [P.].)
- b.* ♀ ad. sk. Port Darwin, Oct. 1881 Voy. H.M.S. 'Alert.'  
(*Dr. Coppinger*).

45. *Zosterops semperi*.

*Zosterops semperi*, *Hartl. & Finsch, P. Z. S.* 1868, p. 117; *Gray, Hand-l. B. i.* p. 163, no. 2144 (1869); *Hartl. P. Z. S.* 1872, p. 95; *Finsch, Journ. Mus. Godeffr.* Heft viii. p. 16, Taf. 4. fig. 1; *id. P. Z. S.* 1880, p. 575; *id. Ibis.* 1881, p. 115.

*Adult.* General colour above dull yellowish olive, scarcely brighter on the rump and upper tail-coverts; wing-coverts like the back, but a little greener; bastard-wing feathers dusky; primary-coverts and quills dusky brown, edged with dull yellowish olive, brighter on the primaries; tail-feathers dusky, edged with yellowish olive; crown of the head like the back; lores and the extreme base of the fore-

head brighter yellow; in front of the eye a dusky spot, and below the eye a line of dusky; ring of feathers round the eye silky white, not strongly pronounced; ear-coverts dull olive-yellow like the head; cheeks, throat, and under surface of the body very pale sulphur-yellow, a little washed with olive-green on the sides of the body and flanks; thighs olive-green; under tail-coverts pale sulphur-yellow; under wing-coverts and axillaries very pale yellow, with whitish bases; quills below dusky; inner edge of quills ashy whitish. Total length 3·8 inches, culmen 0·45, wing 2·2, tail 1·35, tarsus 0·7.

*Hab.* Pelew Islands; Eastern and Central Carolines.

*a.* Ad. sk.

Pelew Islands.

Mr. Cohen [C.].

#### 46. *Zosterops chloris*.

*Zosterops chloris*, *Bp. Consp.* i. p. 398 (1850, *ex S. Müller, MSS. in Mus. Lugd.*); *Reichenb. Handb., Meropine*, p. 96, no. 209 (1852); *Wall. P. Z. S.* 1863, p. 31 (pt.); *Hartl. J. f. O.* 1865, p. 24 (pt.); *Finsch, Neu-Guinea*, p. 163 (1865, pt.); *Gray, Hand-l. B. i.* p. 162, no. 2117 (1869, pt.); *Salvad. P. Z. S.* 1878, p. 84; *id. Ann. Mus. Civic. Genov.* xvi. p. 82 (1880); *id. Voy. II. M. S. 'Challenger,'* ii. p. 67 (1881); *id. Orn. Papuasias etc.* ii. p. 370 (1881).

*Male.* General colour above olive-yellow, a little duller on the mantle, back, and scapulars; wing-coverts like the back; bastard-wing feathers black; quills and tail-feathers dusky, externally edged with olive-yellow, the latter whitish along the edge of the inner web; crown of the head like the back, a shade lighter yellow, with obsolete paler yellow shaft-lines; lores and base of the forehead brighter and more orange-yellow; feathers round the eye silky white; in front of the eye a dusky spot, extending below the eye itself; ear-coverts dull olive-yellow; cheeks, throat, and under surface of the body deeper yellow, greener on the sides of the body, flanks, and thighs; under tail-coverts deep yellow; under wing-coverts and axillaries paler yellow; quills dusky below, inner edges ashy whitish. Total length 4·7 inches, culmen 0·55, wing 2·4, tail 1·5, tarsus 0·75.

*Female.* A little paler in colour than the male. Total length 4 inches, culmen 0·55, wing 2·3, tail 1·6, tarsus 0·75.

*Hab.* Island of Banda, Moluccas.

*a, b.* Ad. sk.

Banda.

A. R. Wallace, Esq. [C.].

*c, d.* ♂ ♀ ad. sk.

Banda.

Voy. H.M.S. 'Challenger.'

#### 47. *Zosterops buruensis*.

*Zosterops chloris* (pt.), *Wall. P. Z. S.* 1863, p. 31; *Hartl. J. f. O.* 1865, p. 24; *Finsch, Neu-Guinea*, p. 163 (1865); *Gray, Hand-l. B. i.* p. 162, no. 2117 (1869).

*Zosterops buruensis*, *Salvad. Ann. Mus. Civic. Genov.* xii. p. 341 (1878); *id. op. cit.* xvi. p. 82 (1880); *id. Orn. Papuasias etc.* ii. p. 371 (1881).

*Adult female* (type of species). Very similar to *Z. chloris*, but greener above, with a distinct shade of brighter yellow on the upper



tail-coverts; the ear-coverts and sides of face much greener than in *Z. chloris*, causing the yellow throat to stand out in stronger relief. Total length 4·4 inches, culmen 0·5, wing 2·3, tail 1·65, tarsus 0·6.

*Hab.* Island of Bouru, Moluccas.

a. ♀ ad. sk. Bouru. A. R. Wallace, Esq. [C.]  
(Type of species.)

#### 48. *Zosterops intermedia*.

*Zosterops chloris* (nee *Bp.*), *Gray, P. Z. S.* 1860, p. 350; *Wall. P. Z. S.* 1863, p. 31 (pt.); *Hartl. J. f. O.* 1865, p. 24; *Finsch, Neu-Guinca*, p. 163 (1865, pt.); *Gray, Hand-l. B.* i. p. 162, no. 2117 (1869, pt.); *Rosenb. Malay. Arch.* p. 406 (1879).

*Zosterops intermedia*, *Wallace, P. Z. S.* 1863, p. 486; *Hartl. J. f. O.* 1865, p. 16; *Finsch, Neu-Guinca*, p. 164 (1865); *Gray, Hand-l. B.* i. p. 162, no. 2118 (1869); *Wald. Trans. Z. S.* viii. p. 72, pl. 9, fig. 2 (1872); *Rosenb. Malay. Archip.* p. 416 (1879); *Meyer, Ibis*, 1879, p. 132; *Salvad. Ann. Mus. Civic. Genov.* xvi. p. 81 (1880); *id. Orn. Papuasias etc.* ii. p. 370 (1881).

*Adult male.* Similar to *Z. chloris*, but of a greener shade, with the underparts purer and more sulphur-yellow; "upper mandible dark, the lower one pale; feet dusky lead-colour; iris olive-brown" (*Wallace*); "iris yellow" (*Meyer*). Total length 4·6 inches, culmen 0·5, wing 2·25, tail 1·6, tarsus 0·7

*Hab.* Celebes; Lomboek; Ternate.

a. ♂ ad. sk. Makassar, Celebes. A. R. Wallace, Esq.  
(Type of species.)  
b, c, d. ♂ ad. sk. Lomboek. A. R. Wallace, Esq. [C.]  
e. ♂ ad.; f. Ad. sk. Ternate. A. R. Wallace, Esq. [C.]

#### 49. *Zosterops gallio*.

*Zosterops flava* (nee *Horsf.*), *Salvad. Orn. Papuasias etc.* ii. p. 370 (1881).

*Adult female.* General colour above olive-yellow, brighter on the rump and upper tail-coverts; lesser wing-coverts like the back; median and greater coverts ashy, externally olive-yellow; bastard-wing feathers blackish; primary-coverts ashy, externally washed with olive-yellow; quills blackish, externally edged with olive-yellow, brighter on the primaries; tail-feathers blackish, edged with olive-yellow near the base; crown of head like the back, brighter yellow on the lores and base of forehead; feathers round the eye silky white, with a black spot in front of the eye, running in a narrow line below the latter; ear-coverts olive-yellow; cheeks, throat, and underparts bright yellow, a little washed with green on the sides of the body and flanks; thighs yellow, externally greenish; under tail-coverts bright yellow; under wing-coverts white, washed with yellow; axillaries bright yellow; quills below dusky blackish; inner edge of quills white. Total length 4·1 inches, culmen 0·5, wing 1·95, tail 1·3, tarsus 0·65.

Of the same group as *Z. chloris* and like that species, but smaller,

and having a much smaller bill; the general colour above also rather greener, the rump and upper tail-coverts brighter yellow, in strong contrast. It is further distinguished by its black wings and tail, the feathers of the latter having no green edges to the outer web or whitish ones to the inner web.

*Hab.* Java.

*a.* ♀ ad. sk.

E. Java.

A. R. Wallace, Esq. [C.].

### 50. *Zosterops nigrorum*.

*Zosterops nigrorum*, *Tweedd. P. Z. S.* 1878, p. 286; *Wardlaw Ramsay, Orn. Works Tweedd.* p. 658.

*Male.* General colour above dull olive-green, slightly paler on rump and upper tail-coverts; wing-coverts like back; bastard-wing and primary-coverts ashy brown, edged with olive; quills dusky brown, edged with olive greenish, a little brighter on primaries; tail-feathers dusky, washed with olive-green on outer web; crown of head scarcely lighter than the back; lores dusky, surmounted by a spot of bright yellow, which extends onto the forehead; ring of feathers round eye white, with a dusky streak underneath; ear-coverts olive greenish like head; cheeks, sides of breast, flanks, and under surface of the body sulphur-yellow; thighs yellow, olive behind; under tail-coverts sulphur-yellow; under wing-coverts and axillaries white, washed with yellow; quills below dusky, with their inner edge ashy, tinged with yellowish. Total length 4 inches, culmen 0·5, wing 2·2, tail 1·5, tarsus 0·65. (*Mus. R. G. Wardlaw Ramsay.*)

The *female* is like the male. Total length 4 inches, culmen 0·5, wing 2·15, tail 1·5, tarsus 0·65. (*Mus. R. G. W. R.*)

This species is very like *Z. gallio*, but much greener above and scarcely any lighter on the rump; ear-coverts green, and the under surface of the body pale sulphur-yellow.

*Hab.* Island of Negros, Philippine archipelago.

### 51. *Zosterops hypolais*.

*Zosterops hypolais*, *Hartl. & Finsch, P. Z. S.* 1872, p. 95.

Upper parts of a pale greyish green: throat and under tail-coverts a pure, but very pale, whitish yellow; breast and abdomen of a mixed pale grey and pale yellow; wing- and tail-feathers pale blackish, margined with the greenish colour of the back; under wing-coverts and inner margins of the remiges white; eye-ring indistinct; beak fuscous, the under mandible paler, except at the tip; feet plumbeous. Total length about 4", bill from front 5", wing 26", tail 18", tarsus 9". (*Hartlaub and Finsch.*)

*Hab.* Island of Uap, Mackenzie group.

52. *Zosterops oleagina*.

*Zosterops oleagina*, *Hartl. & Finsch, P. Z. S.* 1872, p. 95.

General colour a deep oil-green, with a decided fulvous hue; underparts a little paler and a little more yellowish; eye-ring satin-white; ears blackish; upper and under tail-coverts with a slight rufous tinge; wing- and tail-feathers blackish, with oil-green margins; under wing-coverts whitish grey; beak fulvous, under mandible, except at the tip, yellowish; feet pale, probably yellow; iris reddish white. Total length about 4" 7"', bill from front 6½"', wing 2" 7"', tail 1" 8"', tarsus 10"'. (*Hartlaub and Finsch.*)

*Hab.* Uap, in the Mackenzie group of islands.

53. *Zosterops conspicillata*.

*Dicaeum conspicillatum*, *Kittl. Kupf. Vög.* pl. 19. fig. 1 (1832); *id. Mém. Acad. St. Pétersb.* ii. pl. 4 (1835).

*Zosterops conspicillata*, *Gray, Gen. B.* i. p. 198 (1848); *Bp. Consp.* i. p. 398 (1850); *Reichenb. Handb., Merop.* p. 92, pl. 461. fig. 3295 (c. 1852); *Gray, Cat. B. Trop. Isl. Pacific Ocean*, p. 16 (1859); *id. Hand-l. B.* i. p. 163, no. 2141 (1869).

Bill horn-grey; feet flesh-colour; iris dark brown; feathers of the upper surface greyish olive-green, on the abdomen somewhat dingy yellow; throat yellowish white; on the fore part of the forehead a white cross band, which is lengthened into a *Zosterops*-like eye-ring; wing and tail-feathers dark brown, with greenish-yellow edging. (*Kittlitz.*)

*Hab.* Island of Guam, Ladrones.

54. *Zosterops flavifrons*.

Yellow-fronted Flycatcher, *Lath. Gen. Syn.* ii. p. 342 (*ex Forster, Icon. ined.*).

*Muscicapa flavifrons*, *Lath. Ind. Orn.* i. p. 479 (1790).

*Muscicapa heteroclitia*, *Forster, Icon. inced.* no. 158; *id. Deser. Anim.* p. 271 (1844).

*Zosterops flavifrons*, *Gray, Cat. B. Trop. Isl. Pacific Ocean*, p. 15 (1859); *Hartl. J. f. O.* 1865, p. 23; *Gray, Hand-l. B.* i. p. 152, no. 2116 (1869); *id. in Brenchley's Cruise of 'Curaçoa,'* p. 366, pl. 7. fig. 1 (1873); *Layard, Ibis*, 1876, p. 140; *Tristr. t. c.* p. 262; *Layard, Ibis*, 1878, pp. 270, 280.

*Adult male.* General colour above olive-yellow, a little brighter on the rump and upper tail-coverts; lesser wing-coverts olive-yellow; median and greater coverts dusky ashy, edged with olive-yellow; bastard-wing feathers blackish; primary-coverts like the greater series; quills dusky brown, edged with olive-yellow, a little brighter on the primaries; tail-feathers dusky ash-brown, edged with olive-yellow, whitish along the edge of the inner web; crown of head like the back; lores and base of the forehead golden yellow,

extending above the fore part of the eye; in front of the eye a blackish spot, extending below the eye in a narrow streak; feathers round the eye silky white; ear-coverts olive-yellow; cheeks, throat, and underparts bright yellow; sides of the body and flanks a little tinged with olive; thighs yellow, externally olive; under tail-coverts bright yellow; under wing-coverts whitish, washed with yellow; axillaries pale yellow; quills below dusky; inner edge of quills ashy white. Total length 4·8 inches, culmen 0·65, wing 2·5, tail 1·9, tarsus 0·8.

*Adult female.* Like the male, but a little paler. Total length 4·9 inches, culmen 0·7, wing 2·5, tail 1·8, tarsus 0·8.

*Hab.* New Hebrides.

- |              |                             |                              |
|--------------|-----------------------------|------------------------------|
| a. ♂ ad. sk. | Erromango, New Hebrides.    | J. Macgillivray, Esq. [C.].  |
| b. ♂ ad. sk. | Aneiteum, August 1865.      | Julius Brenchley, Esq. [P.]. |
| c. ♀ ad. sk. | Erromango, Sept. 1865.      | Julius Brenchley, Esq. [P.]. |
| d. ♂ ad. sk. | Aneiteum, June 14, 1859     | Eyton Collection.            |
|              | ( <i>J. Macgillivray</i> ). |                              |
| e. ♂ ad. sk. | Aneiteum.                   | J. Macgillivray, Esq. [C.].  |

### 55. *Zosterops rendovæ*.

*Tephras olivaceus*, *Ramsay, Pr. Linn. Soc. N. S. Wales*, vi. p. 180 (1881, *nec* *Z. olivacea* (*L.*)).

*Zosterops ramsayi*, *Salvad. Ann. Mus. Civic. Genov.* xviii. p. 425 (*nec Masters*)\*.

*Zosterops rendovæ*, *Tristram, Ibis*, 1882, p. 135.

*Adult* (type of *Z. rendovæ*). General colour above uniform olive-yellow, a little brighter across the rump; wing-coverts like the back, a little yellower on the median and greater coverts; bastard-wing feathers dusky, washed with olive; primary-coverts and quills blackish, externally olive-yellow, brighter on the edge of the primaries; upper tail-coverts olive-yellow; tail-feathers blackish, washed with olive-green near the base; crown of head and lores like the back; no ring of white feathers round the eye; in front of the eye a dusky spot; ear-coverts, cheeks, and throat olive-yellow, scarcely brighter than the upper surface; fore neck, breast, and abdomen bright yellow, greener on the sides of the body and flanks; thighs and under tail-coverts bright yellow; under wing-coverts and axillaries white, washed with bright yellow; quills below dusky; inner edge of quills ashy white tinged with yellow. Total length 4·6 inches, culmen 1·65, wing 2·55, tail 1·8, tarsus 0·7. (*Mus. H. B. Tristram.*)

*Hab.* Island of Rendova, Solomon group.

### 56. *Zosterops gulliveri*.

*Zosterops* (*Tephras*) *gulliveri*, *Casteln. & Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 383.

\* Count Salvadori (*Orn. Papuasias etc.* iii. App. p. 546) considers that the descriptions of *Z. rendovæ* and *T. olivaceus*, *Ramsay*, differ so much that it is probable that they are not identical.

*Zosterops gulliveri*, Ramsay, *Proc. Linn. Soc. N. S. W.* ii. p. 191 (1878).

The general colour above is of a light ashy brown, darker on the quills and tail, all the feathers washed with pale olive-yellow, which shows more conspicuously on the outer webs of the wing and tail-feathers; the forehead and throat of a little brighter yellow; lores blackish, the whole of the under surface and the under wing- and tail-coverts very pale citron, with a slight wash of buff on the flanks; legs light grey; bill dark lead-grey above, lower mandible paler. Total length 4.2 inches, wing 2.25, tail 1.8, tarsus 0.7, bill from forehead 0.55. (*Castelnau and Ramsay.*)

*Hab.* Norman River, Gulf of Carpentaria.

### 57. *Zosterops griseitincta.*

*Zosterops griseitincta*, Gray, *P. Z. S.* 1858, p. 175; *id. Cat. Mamm. & Birds New Guin.* p. 25 (1859); *id. P. Z. S.* 1861, p. 434; *Finsch, Neu-Guinea*, p. 164 (1865); *Hartl. J. f. O.* 1865, p. 25; *Gray, Hand-l. B.* i. p. 162, no. 2112; *Salvad. Ann. Mus. Civic. Genov.* xvi. p. 82 (1880); *id. Orn. Papuaasia etc.* ii. p. 371 (1881).

*Adult male* (type of species). General colour above olive-greenish; lesser wing-coverts like the back; median and greater coverts ashy, externally olive-greenish; bastard-wing feathers blackish; primary-coverts dusky, externally ashy grey; quills dusky brown, margined with ashy grey, tinged with olive-yellow, especially on some of the secondaries; upper tail-coverts olive-green; tail-feathers light dusky brown, edged with olive-green externally, and with a narrow margin of white along the inner webs; crown of head like the back, with obscure pale shaft-lines; the base of the forehead and lores brighter yellow; feathers round the eye silky white; ear-coverts olive-greenish; cheeks, throat, and under surface of the body bright sulphur-yellow; sides of body and flanks washed with ashy olive; thighs and under tail-coverts pale yellow, the former externally olive; under wing-coverts and axillaries whitish, washed with yellow; the lower series of wing-coverts pale ashy; quills below dusky, and inner edge of the quills whitish. Total length 4.5 inches, culmen 0.6, wing 2.45, tail 1.7, tarsus 0.75.

*Hab.* Louisiade Islands.

a. ♂ ad. sk.                      Louisiade archipelago.                      J. Macgillivray, Esq. [C.].

### 58. *Zosterops longirostris.*

*Zosterops longirostris*, Ramsay, *Proc. Linn. Soc. N. S. W.* iii. p. 288 (1879), iv. p. 100 (1879); *Salvad. Ann. Mus. Civic. Genov.* xvi. p. 82 (1880); *id. Orn. Papuaasia etc.* ii. p. 372 (1881).

*Adult male.* All the upper surface greenish yellow; wings and tail dark brown, outwardly margined with greenish yellow; under wing-coverts white, tinged with yellow on the shoulders; inner

webs of the quills, except at the tips, white; all the under surface yellow, brightest on the throat; abdomen and under tail-coverts slightly tinged with greenish yellow on the sides and flanks; lores yellow; narrow ring round the eye white; bill yellow, tinged with brownish at the tip; feet olive-grey. Total length 4 inches, wing 2·5, tail 1·45, tarsus 0·7, bill from forehead 0·7, from gape 0·75, from nasal groove to tip 0·4. (*Ramsay.*)

*Hab.* Heath Island.

### 59. *Zosterops brunneicauda.*

*Zosterops rufifrons*, *Salvad. Ann. Mus. Civic. Genov.* vi. p. 79 (1874).

*Zosterops brunneicauda*, *Salvad. Ann. Mus. Civic. Genov.* xvi. p. 82 (1880, *nom. emend.*)\*; *id. Orn. Papuasia etc.* ii. p. 373 (1881).

*Adult.* Above yellowish green, conspicuously yellowish; under surface of body deep yellow, the sides of the body greenish; eye-ring snow-white, below surrounded by dusky black; quills and tail-feathers brown, margined with the same colour as the back; under wing-coverts and inner edge of quills whitish yellow; bill dusky, the lower mandible paler at the base; feet apparently lead-colour. Total length 4·75 inches, wing 2·45, tail 1·65, bill 0·5, tarsus 0·65. (*Salvadori.*)

*Hab.* Islands of Ceram Laut, Choir, and the Aru Islands; ? Mysol.

### 60. *Zosterops uropygialis.*

*Zosterops uropygialis*, *Salvad. Ann. Mus. Civic. Genov.* vi. p. 78 (1874), xiv. p. 655 (1879), xvi. p. 82 (1880); *id. Orn. Papuasia etc.* ii. p. 373 (1881).

*Adult.* Above yellowish green, the head tinged with dusky, the rump yellower; entire under surface yellow, the under tail-coverts and throat brighter; quills and tail-feathers dusky, margined with the same colour as the back, the former margined internally with yellowish white; under wing-coverts mixed yellow and ashy; bill dusky; feet lead-colour. Total length 4·4 inches, wing 2·5, tail 1·8, bill 0·5, tarsus 0·65. (*Salvadori.*)

*Hab.* Little Ké Island, Moluccas.

### 61. *Zosterops semiflava.*

*Zosterops semiflava*, *E. Newton, Ibis*, 1867, pp. 354, 359; *Gray, Hand-l. B.* i. p. 163, no. 2160 (1869); *Hartl. Fög. Madag.* p. 104 (1877); *Oustalet, Bull. Soc. Philom.* 1878, p. 170.

*Adult.* General colour above clear olive-yellow, clearer yellow on the upper tail-coverts, with a reddish-brown shade on the lower

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\* Count Salvadori has changed the name of *rufifrons*, as the rufous forehead of the type specimen was found to be due to a blood-stain.

back and rump; wing-coverts dusky, externally dull olive-yellow; bastard-wing feathers black; primary-coverts black, with narrow olive margins; quills blackish, margined olive-yellow, a little brighter on the primaries; tail-feathers black, margined with dull olive-yellow; crown of head like the back or very slightly yellower; lores dusky, surmounted by a streak of bright yellow; ring of feathers round the eye silky white, with a dusky streak underneath; ear-coverts dull olive-yellow; throat and under surface of body golden yellow; sides of breast and flanks chestnut-brown; thighs and under tail-coverts bright yellow; under wing-coverts white, washed with yellow, axillaries yellow; quills below blackish; inner edge of quills yellowish white. Total length 4 inches, culmen 0·55, wing 2·25, tail 1·55, tarsus 0·7.

*Hab.* Seychelles.

a. Ad. sk. Marianne Island, Seychelles H. L. Warry, Esq. [C.]  
archipelago.

### 62. *Zosterops mayottensis*.

*Zosterops flavirostris*, Schlegel, *Ned. Tijdschr.* 1860, p. 87.

*Zosterops mayottensis*, Schlegel, *P. Z. S.* 1866, p. 422; *id.* & *Poll. Faun. Madag., Ois.* p. 73, pl. 19, fig. 2 (1868); Gray, *Hand-l. B. i.* p. 163, no. 2154 (1869); Hartl. *Vög. Madag.* p. 103 (1877).

Forehead, lower part of the body, and under wing-coverts bright citron-yellow, passing on the flanks into a brownish red; rest of the upper parts greenish yellow; tail-feathers and wing blackish, but edged with greenish yellow on the outer web; the quills, on the other hand, are broadly edged with yellowish white on the inner webs; lores black; ring of feathers round the eye white; iris brown; feet lead-colour; bill indigo-blue in the living specimen, black after death. Wing 2", tail 12"', bill from forehead 4"', tarsus 6½"', middle toe 4¼"'. (*Schlegel and Pollen.*)

*Hab.* Island of Mayotte.

### 63. *Zosterops chlorates*.

*Zosterops chlorates*, Hartl. *J. f. O.* 1865, p. 23; Gray, *Hand-l. B. i.* p. 163, no. 2148 (1869); *Salvad. Orn. Papuasia etc.* ii. p. 374 (1881).

*Adult male.* General colour above olive-yellow; a little paler on the rump and upper tail-coverts; wing-coverts rather greener than the back, a little more yellow on the edges of the median and greater coverts; bastard-wing feathers blackish; primary-coverts and quills blackish, externally olive-green, yellow on the edge of the primaries; tail-feathers black, edged with olive-greenish, ashy whitish along the inner web; crown of the head like the back, base of the forehead and lores golden yellow; in front of the eye a dusky spot, extending in a narrow line below the latter; ring of feathers round the eye silky white; ear-coverts olive-yellow like the crown;

checks, throat, and fore neck golden yellow; breast and abdomen a little paler golden yellow; sides of the body and flanks with somewhat of a ruddy tinge; thighs pale yellow, olive behind; under tail-coverts bright yellow; under wing-coverts and axillaries pale yellow, white at base; quills below dusky; inner edge of quills ashy whitish; "bill black; legs dirty slate-blue; iris pale grey" (*H. O. Forbes*). Total length 4 inches, culmen 0·5, wing 2·25, tail 1·55, tarsus 0·65.

*Female*. Like the male, but a little greener. Total length 4·5 inches, culmen 0·55, wing 2·35, tail 1·65, tarsus 0·65.

*Hab.* Sumatra.

a. ♀ ad. sk. Mount Dempo, Sumatra, 8000 feet, F. Nicholson, Esq.  
May 1, 1881 (*H. O. Forbes*). [P.]

#### 64. *Zosterops minuta*.

*Zosterops minuta*, *E. L. & L. C. Layard, Ibis*, 1878, p. 259; *Tristram, Ibis*, 1879, p. 186, pl. iv. fig. 1; *E. L. & L. C. Layard, Ibis*, 1880, p. 225.

*Male*. General colour above dull olive-yellow; lesser wing-coverts like the back; median and greater coverts ashy, externally olive-yellow; bastard-wing feathers dusky brown; primary-coverts and quills dusky brown, externally olive-yellow, a little brighter on the primaries; rump and upper tail-coverts a shade lighter yellow than the back; tail-feathers dusky, externally olive-yellow; crown of head like the back, with obsolete pale-yellow shaft-lines to the feathers; lores and base of forehead bright sulphur-yellow; feathers round eye silky white; in front of the eye a dusky spot, extending in a line below the eye; ear-coverts olive-yellow; checks, throat, fore neck, and breast sulphur-yellow; abdomen whiter, washed with yellow; sides of body and flanks washed with isabelline brown, with a large tuft of silky-white plumes on the latter; thighs yellow, externally dusky; under tail-coverts bright olive-yellow; under wing-coverts and axillaries white, washed with yellow; quills below dusky; inner edge of quills white; "bill corneous; legs blue-brown; iris drab" (*Layard*). Total length 4·2 inches, culmen 0·5, wing 2·1, tail 1·55, tarsus 0·7.

*Female*. Similar in colour to the male. Total length 4 inches, culmen 0·5, wing 2·05, tail 1·55, tarsus 0·7.

*Hab.* Lifu, Loyalty Islands.

a, b. ♂ ♀ ad. sk. Lifu, Aug. 1878. E. L. Layard, Esq. [C].  
c. ♂ ad. sk. Lifu, Sept. 2, 1878. E. L. Layard, Esq. [C].  
d. Ad. sk. Lifu. E. L. Layard, Esq. [C].

#### 65. *Zosterops olivacea*.

Le Grimpereau olive de Madagascar, *Briss. Orn.* iii. p. 625 (1760).

*Certhia olivacea*, *Linn. Syst. Nat.* i. p. 185 (1767).

*Zosterops hæsitata*, *Hartl. Faun. Madag.* p. 41 (1861); *Heugl. Ibis*, 1862, p. 359; *Hartl. J. f. O.* 1865, p. 12; *Schlegel, P. Z. S.* 1866, p. 422; *id. & Poll. Faune Madag., Ois.* p. 73, pl. 19. fig. 3 (1868);



*Gray, Hand-l. B. i. p. 162, no. 2128 (1869); Hartl. Vög. Madag. p. 101 (1877).*

*Zosterops olivacea, Hartl. Faun. Madag. p. 41 (1861); Gray, Hand-l. B. i. p. 163, no. 2153 (1869).*

*Adult male.* General colour above green, yellower on the lower back, rump, and upper tail-coverts; lesser and median wing-coverts ashy greyish; greater coverts ashy, externally green; bastard-wing and primary-coverts blackish; quills blackish, externally green, a little yellower on the primaries; tail-feathers ashy brown, with dull green edges; crown of the head blackish; occiput, nape, and hind neck green like the back; lores black, as well as a streak below the eye; feathers round the eye silky white; ear-coverts dark ashy grey; cheeks, sides of the neck, throat, chest, and breast lighter ashy, whiter on the chin; abdomen dull whitish; sides of the body and flanks pale isabelline or russet-brown; thighs ashy; under tail-coverts yellow; under wing-coverts and axillaries ashy whitish; quills below dusky; inner edge of quills ashy. Total length 4·5 inches, culmen 0·55, wing 2·3, tail 1·7, tarsus 0·75.

*Hab.* Island of Bourbon or Réunion.

<i>a. ♂ ad. sk.</i>	Bourbon, May 31, 1865.	Messrs. Pollen and Van Dam [C.].
<i>b. Ad. sk.</i>	Bourbon.	Purchased.
<i>c, d. Ad. et juv. sk.</i>	Bourbon.	R. B. Sharpe, Esq. [P.].

### 66. *Zosterops chloronota.*

Le Soui-manga gris, *Audub. et Vieill. Ois. Dor. ii. pl. 28 (1802).*

*Dicaeum chloronothos, Vieill. Nouv. Dict. d'Hist. Nat. ix. p. 408 (1817).*

*Zosterops curvirostris, Swains. B. W. Afr. ii. p. 44 (descr. nullā); Blyth, J. A. S. Beng. xiv. p. 563 (descr. orig.); id. Cat. B. Mus. As. Soc. p. 220 (1849); Gray, Hand-l. B. i. p. 164, no. 2165 (1869).*

*Zosterops chloronotus, Gray, Gen. B. i. p. 198 (1848); E. Newton, Ibis, 1861, p. 272; Heugl. t. e. p. 359; Hartl. J. f. O. 1865, p. 12; Schlegel, P. Z. S. 1866, p. 422; A. Newton, Ibis, 1868, p. 225; Gray, Hand-l. B. i. p. 164, no. 2168 (1869).*

*Cyclopterops chloronotus, Bp. Comptes Rendus, xxxviii. p. 264 (1854).*

*Zosterops mauritanica, Schl. & Poll. Faun. Madag., Ois. p. 74, pl. 19. fig. 4 (1868).*

*Zosterops chlorophæa, Hartl. Vög. Madag. p. 99 (1877).*

*Adult.* General colour above slaty grey, inclining to dull olive on the rump and upper tail-coverts; lesser and median wing-coverts slaty grey like the back; greater coverts ashy, externally edged with olive-yellow; bastard-wing blackish; primary-coverts and quills dusky, with olive-yellow margins, rather brighter yellow on the primaries; tail-feathers dusky, edged with dull olive-yellow, and fringed with fulvous along the inner web; crown of the head like the back; lores black, surmounted by a very pale whitish-brown

spot: ring of feathers round the eye white; ear-coverts and hinder cheeks dark slaty grey; chin and fore part of cheeks whitish; rest of the throat and underparts ashy grey; fore neck and abdomen a little paler; sides of the body and flanks tinged with pale rusty; thighs ashy grey: under tail-coverts bright yellow; under wing-coverts and axillaries white; quills below dusky; inner edge of quills whitish; "bill black, base of lower mandible brown; legs reddish brown; iris light brown" (*E. Newton*). Total length 4 inches, culmen 0·55, wing 2·15, tail 1·45, tarsus 0·65.

*Female*. Like the male. Total length 4 inches, culmen 0·55, wing 2·05, tail 1·3, tarsus 0·65.

*Hab.* Mauritius.

### 67. *Zosterops modesta*.

*Zosterops modesta*, *E. Newton*, *Ibis*, 1867, pp. 345, 359; *Gray*, *Hand-l. B. i.* p. 163, no. 2159 (1869); *Hartl. Vög. Madag.* p. 98 (1877); *Oustalet*, *Bull. Soc. Philom.* 1878, p. 170.

*Adult*. General colour above dingy olive-brown; wing-coverts dusky, edged with the same colour as the back; bastard-wing and primary-coverts dusky brown; quills dusky, externally dull olive-green, more hoary on the primaries; upper tail-coverts like the back; tail-feathers dusky brown; crown of the head like the back; lores dusky blackish, surmounted by a line of yellowish white; ring of feathers round the eye silky white, with a narrow black line underneath; ear-coverts dull olive-brown; cheeks olive-brown, streaked with dull whitish centres; chin whitish; lower throat and rest of the under surface light olivaceous; abdomen a little paler; sides of the body and flanks rusty brown; thighs ashy grey; under tail-coverts yellowish white, with a very faint tinge of rusty; under wing-coverts and axillaries ashy white, washed with olive; quills below dusky; inner edge of quills whitish; "upper mandible and extremity of lower mandible dark brown, the base of the latter greyish; legs, feet, and claws dusky lead-colour; iris light brown" (*E. Newton*). Total length 4·2 inches, culmen 0·5, wing 2·3, tail 1·45, tarsus 0·65. (*Mus. A. Newton.*)

*Hab.* Seychelles.

### 68. *Zosterops mauritiana*.

Figuier bleu, *Buff. Hist. Nat. Ois.* v. p. 282.

Le Figuier de l'île de France, *D'Aubent. Pl. Enl.* 705, fig. 1.

Maurice Warbler, *Lath. Gen. Syn.* v. pt. 2, p. 476 (1783).

Motacilla mauritiana, *Gm. Syst. Nat.* i. p. 981 (1788).

*Zosterops cinerea*, *Suains. An. in Menag.* p. 294 (1837, nec *Kittl.*).

*Zosterops borbonica*, *Hartl. Faun. Madag.* p. 40 (1861); *Hcugl. Ibis*, 1861, p. 360; *Hartl. J. f. O.* 1865, p. 27; *Schl. & Poll. Faun. Madag.*, *Ois.* p. 74, pl. 19, fig. 5 (pt., 1868); *Gray*, *Hand-l. B. i.*

p. 164, no. 2162 (1869).

*Zosterops mauritiana*, *Hartl. Vög. Madag.* p. 96 (1877).

*Adult male*. General colour above delicate bluish grey; wing-

coverts a little darker grey than the back; bastard-wing feathers blackish; primary-coverts blackish, narrowly edged with grey; quills blackish, externally bluish grey, more hoary on the primaries; rump and upper tail-coverts white; tail-feathers blackish, slightly washed with grey externally, internally edged with ashy; crown of the head like the back; lores blackish, extending a little above and below the eye; in front of the eye a dusky spot; no ring of feathers round the eye; ear-coverts bluish grey, with a slight brownish tinge; cheeks, throat, and underparts white, slightly tinged with ashy grey on the fore neck and breast; sides of the body and flanks washed with rusty; thighs and under tail-coverts white; under wing-coverts and axillaries white; quills below blackish; inner edge of quills whitish; "bill and legs dull lead-colour, soles yellowish; iris bright hazel" (*E. Newton*). Total length 3·8 inches, culmen 0·5, wing 2·2, tail 1·6, tarsus 0·7.

*Female*. Similar to the male, but a little paler. Total length 3·9 inches, culmen 0·5, wing 2·1, tail 1·6, tarsus 0·7.

*Young*. Similar to the adults, but somewhat tinged with olivaceous; rump and upper tail-coverts yellowish white, as also the under surface of the body; sides of the body ashy, a little washed with brown on the flanks.

*Hab.* Mauritius.

*a, b, c.* Ad. sk.

Mauritius.

R. B. Sharpe, Esq. [P.].

### 69. *Zosterops borbonica*.

Le Figuier de l'isle de Bourbon, *Briss. Orn.* iii. p. 510, pl. 28. fig. 3 (1760)\*; *D'Aubent. Pl. Enl.* vi. pl. 705. fig. 2.

Le Petit Simon, *Buff. Hist. Nat. Ois.* v. p. 260.

Le Soui-manga de l'isle de Bourbon, *Buff. t. c.* p. 516.

Griupereau de l'isle de Bourbon, *D'Aubent. Pl. Enl.* vi. pl. 681. fig. 2 (? av. juv.).

Yellow-rumped Creeper, *Lath. Gen. Syn.* vol. i. pt. 2, p. 736 (1781).

Bourbon Warbler, *Lath. Gen. Syn.* vol. ii. pt. 2, p. 475 (1783).

Motacilla borbonica, *Gm. Syst. Nat.* i. p. 981 (1788).

*Zosterops borbonica*, *Gray, Gen. B.* i. p. 198 (1848); *Blyth, Cat. B.*

*Mus. As. Soc.* p. 220 (1849); *Bp. Consp.* i. p. 399 (1850); *Reichenb.*

*Handb., Merop.* p. 91, pl. 460. fig. 3290 (c. 1852); *Heugl. Ibis,*

1861, p. 360; *Hartl. J. f. O.* 1865, p. 27; *Schlegel, P. Z. S.* 1866,

p. 422; *id. & Poll. Faune Madag., Ois.* p. 74, pl. 19. fig. 6 (1863, pt.);

*Gray, Hand-l. B.* i. p. 164, no. 2167 (1869); *Hartl. Vög. Madag.*

p. 95 (1877).

Malaciops borbonica, *Bp. Comptes Rendus*, xxxviii. p. 264 (1854).

*Zosterops E. newtoni*, *Hartl. Vög. Madag.* p. 97 (1877).

*Adult*. General colour above dark slaty grey; wing-coverts like the back; bastard-wing and primary-coverts blackish, the latter narrowly edged with slaty; quills dusky brown, edged with slaty grey, a little more hoary on the primaries; rump and upper tail-

\* Description somewhat unsatisfactory, the characteristic white rump not being mentioned or depicted in the figure.

coverts white; tail-feathers dusky blackish, externally edged with grey, internally fringed with whitish; crown of the head like the back; lores dusky, with a narrow whitish line above; no ring of feathers round the eye; ear-coverts lighter ashy than the back; cheeks and chin hoary white; rest of the throat, fore neck, and breast ashy grey; abdomen whitish, tinged slightly with ashy; sides of the body and the flanks ashy grey; thighs and under tail-coverts white, the latter tinged slightly with ashy; under wing-coverts and axillaries white; quills below dusky brown; inner edge of quills ashy. Total length 4·5 inches, culmen 0·5, wing 2·2, tail 1·65, tarsus 0·7.

*Adult female.* Total length 4·5 inches, culmen 0·5, wing 2·2, tail 1·7, tarsus 0·7.

*Young male.* Total length 4·3 inches, wing 2·15, tarsus 0·7.

*Young female.* Total length 4·2 inches, wing 2·1, tarsus 0·75.

The *female* differs from the male in being rusty brown above, clearer rusty on the ear-coverts, sides of neck, sides of breast, and flanks.

*Young birds* resemble the adult female in being rusty brown above, but grey on the head, ear-coverts, and sides of neck; fore part of cheeks and chin white; rest of the throat and the breast light ashy grey, a little whiter on the abdomen; sides of breast and flanks clear rusty brown.

From a comparison of the British-Museum series with the skins of *Z. newtoni* and *Z. borbonica* lent me by Professor Newton, it is evident that these two species are the same, a perfect gradation being found from one to the other; but whether the brown-backed bird is the winter plumage, or the dress of the adult female, I have not been able to determine.

*Hab.* Island of Réunion or Bourbon.

a. Juv. sk.	Bourbon.	Purchased.
b. ♀ ad.; c. Juv. sk.	Bourbon.	R. B. Sharpe, Esq. [P.].

#### 70. *Zosterops javanica*.

*Sylvia javanica*, *Horsf. Trans. Linn. Soc.* xiii. p. 156 (1820).

*Zosterops javanica*, *Swains. Fawn. Bor.-Amer., Birds*, p. 205 (1831);

*Gray, Gen. B.* i. p. 198; *Bp. Consp.* i. p. 398; *Horsf. & Moore, Cat. B. E. I. Co. Mus.* i. p. 263; *Gray, Hand-l. B.* i. p. 164, no. 2171.

*Adult.* Very similar to *Z. fallax*, but differing in having a very broad white eyebrow and a streak of white feathers below the eye; otherwise exactly like the above-mentioned species. Total length 4·7 inches, culmen 0·55, wing 2·45, tail 1·75, tarsus 0·75.

*Hab.* Java.

a, b. Ad. sk.	Java ( <i>Horsfield</i> ).	India Museum. (Types of species.)
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71. *Zosterops fallax*.

*Zosterops monticola*, *Temm. in Mus. Lugd. (descr. nullá)*.

*Zosterops montana*, *Müll. in Mus. Lugd. (nec Bp.)*.

*Zosterops javanica (nec Horsf.)*, *Cab. Mus. Hein.* i. p. 115 (1850),  
*Gray, Hand-l. B.* i. p. 164, no. 2172 (1869).

*Zosterops frontalis*, *Reichenb. Handb., Merop.* p. 92, pl. 463. fig. 3367  
(c. 1852).

? *Phylloscopus javanicus*, *Blyth, J. A. S. Beng.* xiii. p. 393 (1844);  
*id. Cat. B. Mus. As. Soc.* p. 185 (1849).

*Oreosterops javanica*, *Hartl. J. f. O.* 1865, p. 26.

*Oreosterops montana*, *Bp. C. R.* xxxviii. p. 264 (1854); *Sundev. Av.*  
*Meth. Tent.* p. 27 (1872).

*Adult male.* General colour above dull green, a little yellower on the rump and upper tail-coverts; lesser wing-coverts green like the back; median and greater coverts dusky, externally edged with yellowish green; bastard-wing feathers dusky; primary-coverts and quills dusky, externally edged with yellowish green; secondaries like the back; tail-feathers dusky, with green edges to outer webs and ashy-brown edges to inner webs; crown of head and nape ashy grey, with forehead and lores ashy white, forming a frontal patch; in front of the eye a dusky spot; round the eye a narrow ring of white feathers; ear-coverts ashy grey like the crown; fore part of cheeks dull whitish, hinder part ashy grey, with white shaft-lines; chin dull white, as well as the upper throat; lower throat dull ashy grey, slightly washed with yellow; fore neck, breast, and abdomen pale yellow; sides of body and flanks a little greener; thighs pale yellow, externally greenish; under tail-coverts bright yellow; under wing-coverts white, slightly washed with yellow; axillaries pale sulphur-yellow; quills below dusky; inner edge of quills yellowish white. Total length 5·2 inches, culmen 0·55, wing 2·5, tail 1·9, tarsus 0·7.

*Female.* Like the male in colour. Total length 4·9 inches, culmen 0·55, wing 2·4, tail 1·8, tarsus 0·7.

*Hab.* Java and Sumatra.

a. Ad. sk.	Java.	Zoological Society.
b. Ad. sk.	West Java.	A. R. Wallace, Esq. [C.].
c, d. ♂ ♀ ad. sk.	West Java.	A. R. Wallace, Esq. [C.].
e. Ad. sk.	Java.	Purchased.
f. ♂ ad. sk.	Sumatra.	Purchased.

72. *Zosterops finschii*.

*Tephras finschii*, *Hartl. P. Z. S.* 1868, pp. 6, 117, pl. 3.

*Zosterops finschii*, *Gray, Hand-l. B.* i. p. 164, no. 2173 (1869);  
*Hartl. & Finsch, P. Z. S.* 1872, p. 96.

*Adult.* General colour above uniform ruddy brown; wing-coverts like the back; bastard-wing feathers a little more dusky; primary-coverts and quills brown, externally like the back; inner secondaries entirely of the latter colour; tail-feathers brown, edged with lighter brown like the back; crown of the head a little more dingy brown than the back; lores a little more dusky; ear-coverts brown like

the head, with pale shaft-lines; cheeks and throat dull ashy; remainder of under surface of the body ruddy brown, more ashy in the centre of the breast and abdomen; thighs ashy; under tail-coverts reddish brown; under wing-coverts and axillaries dull ashy; quills below dusky brown; inner edge of quills ashy. Total length 4·5 inches, culmen 0·65, wing 2·5, tail 1·65, tarsus 0·75.

*Hab.* Pelew Islands.

*a.* Ad. sk.

Pelew Islands.

Mr. Cohen [C.].

### 73. *Zosterops cinerea*.

*Drepanis cinerea*, *Kittl. Kupf. Vög.* pl. 8. fig. 2 (1832); *id. Mém. St. Pétersb.* ii. pl. 5 (1835).

*Dicaeum cinereum*, *Gray, Gen. B.* i. p. 100 (1848).

*Zosterops cinerea*, *Hartl. Arch. f. Naturg.* 1852, p. 131; *Gray, Cat. B. Trop. Isl. Pacific Ocean*, p. 16 (1859); *id. Hand-l. B.* i. p. 163, no. 2140 (1869); *Finsch, Ibis*, 1880, p. 109.

*Zosterops kittlitzi*, *Finsch, J. f. O.* 1880, p. 300.

*Adult male.* Above dirty ashy grey, the cheeks a little paler than the sides; rest of underparts pale ashy grey; a narrow, not strongly pronounced, ring round the eye and lores grey; quills dark brown, edged with brownish grey; tail dark brown; bill dark brown; feet yellowish grey; toes and soles of feet dirtier brown; iris hazel to reddish brown; claws dark. Total length 4" 6"', wing 2" 4"', tail 1" 6"', culmen about 5"', tarsus 8"'. (*Finsch.*)

*Adult female.* Like the male. (*Finsch.*)

*Hab.* Kishai and Ualau Islands.

### 74. *Zosterops ponapensis*.

*Zosterops ponapensis*, *Finsch, Journ. Mus. Godeffr.* Heft xii. p. 27, Taf. 2. fig. 1; *id. P. Z. S.* 1877, p. 778; *id. Ibis*, 1881, p. 115.

The whole of the upper parts olive earthy brown; wings and tail darker, deep umber-brown, narrowly edged with earthy brown; forehead somewhat paler than rest of upper parts; a narrow ring surrounding the eye silvery grey; lores, sides of head, and underparts brownish ashy grey; flanks inclining to earthy brown; bill horny black; feet dark leaden grey, black in the skin. (*Finsch.*)

*Hab.* Island of Ponapé.

### 75. *Zosterops melanops*.

*Zosterops melanops*, *Gray, Cat. B. Trop. Isl. Pacific Ocean*, p. 15 (1859); *Hartl. J. f. O.* 1865, p. 21; *Gray, Hand-l. B.* i. p. 162, no. 2115 (1869); *E. L. & L. C. Layard, Ibis*, 1878, p. 259; *Tristr. Ibis*, 1879, p. 186; *Layard, Ibis*, 1880, p. 225.

*Adult.* General colour above dull slaty grey; the lower back, rump, and upper tail-coverts olive-green; scapulars and lesser wing-coverts like the back; median and greater coverts dusky, edged with olive-green; bastard-wing feathers blackish; primary-coverts dusky, with

narrow olive-green edges; quills dusky, externally margined with dull olive-yellow; tail-feathers dusky, edged with olive-green; crown of head sooty black, washed with olive-green; lores black, as also a patch of feathers below the eye and the fore part of the cheeks; ring round the eye silky white; ear-coverts olive-green; cheeks and throat dull olive-yellow; fore neck and breast ashy grey; abdomen whiter; sides of body and flanks ashy grey; thighs white, externally ashy; under tail-coverts ashy whitish; under wing-coverts and axillaries white, the lower series ashy; quills below dusky; inner edge of quills whitish; "bill corneous; lower mandible whitish; legs and feet pale greenish brown; iris yellow or brown drab" (*Layard*). Total length 4.8 inches, culmen 0.55, wing 2.35, tail 1.9, tarsus 0.75.

*Hab.* Loyalty Islands.

*a.* Ad. sk. Loyalty Islands. Sir George Grey [P.]  
(Type of species.)

### 76. *Zosterops lugubris*.

*Zosterops lugubris*, *Hartl. Rev. Zool.* 1848, p. 109; *id. Beitr. Orn. W.-Afr.* p. 23 (1848); *id. Abhandl. nat. Ver. Hamburg*, ii. p. 49, pl. 2. fig. infer. (1848); *Gray, Gen. B.* i. p. 198 (1848); *Bp. Consp.* i. p. 398 (1850); *Hartl. Orn. W.-Afr.* p. 72 (1857); *Heugl. Ibis*, 1861, p. 361; *Gray, Hand-l. B.* i. p. 164, no. 2710 (1869).

*Speirops lugubris*, *Reichenb. Handb., Merop.* p. 93, pl. 462. fig. 3306 (c. 1852); *Sharpe, P. Z. S.* 1869, p. 564.

*Adult male.* General colour above dull olive-green, the mantle and sides of the neck more ashy; lesser wing-coverts and median coverts olive-green; greater coverts dusky, externally olive-green like the back; bastard-wing and primary-coverts dusky blackish; quills dusky, externally olive-green like the back; upper tail-coverts a little clearer olive than the back; tail-feathers dusky, edged with olive-green; crown of head blackish; base of forehead olive-yellow; nape and hind neck olive-green like the back; lores and feathers round the eye white; ear-coverts pale olive, with whitish shaft-streaks; sides of hinder crown ashy grey; cheeks and throat ashy grey, slightly tinged with olive; breast and abdomen ashy olive, greyer on the flanks; thighs white; under tail-coverts deep olive with a fulvous tinge; under wing-coverts and axillaries pure white; quills ashy brown below; inner edges of quills white. Total length 4.8 inches, culmen 0.55, wing 2.8, tail 1.9, tarsus 0.85.

*Hab.* West Africa: Island of S. Thomas in the Bight of Benin.

*a.* ♂ ad. sk. S. Thomas. J. J. Monteiro, Esq. [C.].

77. *Zosterops melanocephala*.

*Zosterops* (*Speirops*) *melanocephalus*, *Gray, Ann. & Mag. Nat. Hist.* (3) x. p. 444 (1862).

*Zosterops melanocephalus*, *Gray, Hand-l. B. i.* p. 164, no. 2169 (1869).

*Speirops melanocephalus*, *Sharpe, P. Z. S.* 1871, p. 615; *Reichen. J. f. O.* 1875, p. 50.

*Adult* (type of species). General colour above dull ashy brown, a little lighter on the rump and upper tail-coverts; wing-coverts like the back; bastard-wing and primary-coverts uniform dusky brown; quills and tail-feathers dusky brown, externally like the back; crown of head and nape blackish brown; lores white; ear-coverts and cheeks blackish brown; throat white; remainder of under surface light ashy brown; breast, centre of abdomen, and thighs dusky ashy brown; under tail-coverts ashy whitish; under wing-coverts and axillaries ashy, with whitish ends; quills below dusky brown; inner edge of quills ashy whitish. Total length 4·7 inches, culmen 0·55, wing 2·45, tail 1·8, tarsus 0·85.

*Hab.* West Africa: Cameroons district.

a. Ad. sk. Mountains of Cameroons, Capt. R. F. Burton [P.]  
7000 feet. (Type of species.)

78. *Zosterops leucophæa*.

*Parinia leucophæa*, *Hartl. Orn. W.-Afr.* p. 71 (1857); *Dohrn, P. Z. S.* 1866, p. 327; *Sharpe, Cat. Afr. B.* p. 36 (1871).

*Thamnobia leucophæa*, *Gray, Hand-l. B. i.* p. 212, no. 3000 (1869).

*Adult.* Crown of head whitish with a grey tinge, this tinge becoming more and more pronounced towards the hind neck, where the coloration gradually changes into the greyish brown of the mantle and back, with a dash of olive; wing-coverts, quills, and tail-feathers dark brown, their edges narrowly washed with olive; ear-coverts, cheeks, and under wing-coverts almost pure white; all the rest of the underparts greyish white; bill brown, mandible paler; legs lead-colour, with pale claws. Total length 5 inches, culmen 0·55, wing 2·6-2·75, tail 1·8-2, tarsus 0·8.

*Hab.* West Africa: Gaboon, Prince's Island.

a, b. Ad. sk. Prince's Island, W. Africa. Dr. Dohrn [C.].

79. *Zosterops atriceps*.

*Zosterops atriceps*, *Gray, P. Z. S.* 1860, p. 350; *Hartl. J. f. O.* 1865, p. 22; *Finsch, Neu-Guinea*, p. 164 (1865); *Gray, Hand-l. B. i.* p. 163, no. 2145 (1869); *Salvad. Ann. Mus. Civic. Genov.* xvi. p. 80 (1872); *id. Orn. Papuasie etc.* ii. p. 364 (1881).

*Adult male.* General colour above dull yellowish olive, a little clearer on the rump and upper tail-coverts; lesser wing-coverts dusky brown; median and greater coverts like the back; bastard-wing



feathers blackish; primary-coverts and quills dusky brown, externally olive-yellowish; inner secondaries like the back; tail-feathers dusky brown, with narrow olive-yellow margins near the bases; crown of head, nape, and hind neck sooty brown, blacker on the forehead, and extending a little onto the mantle, but somewhat mixed with ashy; fore part of head with scarcely perceptible paler shaft-lines; lores black; round the eye a small ring of white feathers; ear-coverts sooty brown like the head; cheeks pale sooty, with white bases to the feathers; sides of the neck sooty brown: throat and underparts ashy white, purer on the breast and abdomen; sides of the body and flanks washed with ashy; thighs white, dusky behind; under tail-coverts bright yellow; under wing-coverts and axillaries white; quills dusky below, inner edges ashy whitish. Total length 4.7 inches, culmen 0.55, wing 2.25, tail 1.65, tarsus 0.65.

*Hab.* Island of Batchian, in the Moluccas.

a. ♂ ad. sk.	Batchian.	A. R. Wallace, Esq. [C.]
b. Ad. sk.	Batchian.	(Type of species.) Gould Collection.

### 80. *Zosterops fuscifrons*.

*Zosterops fuscifrons*, *Salvad. Ann. Mus. Civic. Genov.* xii. p. 339 (1878), xvi. p. 80 (1880); *id. Orn. Papuasias etc.* ii. p. 365 (1881).

*Adult.* Very similar to *Z. atriceps* of Gray, from Batchian, but having only the sinciput and the lores dusky; the occiput, hind neck, and cheeks yellowish olive, uniform with the back, and not dusky at all; wings and tail dusky, margined with yellowish olive; under surface of body white, with the exception of the under tail-coverts, which are yellow; round the eye a conspicuous ring of white feathers. Total length 4.25 inches, wing 2.1, bill 0.8, tarsus 0.6.

*Hab.* Island of Gilolo or Halmahera, in the Moluccas.

### 81. *Zosterops mysoriensis*.

*Zosterops mysoriensis*, *Meyer, Sitz. K. Akad. Wien*, lxx. p. 116 (1874); *Salvad. Ann. Mus. Civic. Genov.* xvi. p. 81 (1880); *id. Orn. Papuasias etc.* ii. p. 365 (1881).

*Adult.* Above olivaceous, the rump brighter; under surface white; upper breast tinged with grey; under tail-coverts pale yellow; sides of neck and cheeks tinged with grey; lores dusky; quills blackish, externally margined with clear greenish olive, internally with white; edge of the wing yellow; under wing-coverts white mixed with yellow; tail blackish above, below greyish; tail-feathers externally margined with greenish olive; bill black, the lower mandible pale at the base; feet black. Total length 4.25 inches, wing 1.9, tail 1.5, bill 0.4, tarsus 0.7. (*Salvadori*.)

*Female.* Like the male. (*Salvadori*.)

*Hab.* Island of Misori, in the Bay of Geelvink, N.W. New Guinea.

82. *Zosterops hypoleuca*.

*Zosterops hypoleuca*, *Salvad. Ann. Mus. Civic. Genov.* xii. p. 340 (1878), xvi. p. 81 (1880); *id. Orn. Papuaasia etc.* ii. p. 365 (1881).

*Adult.* General colour above dull olive-green; lesser wing-coverts like the back; median and greater coverts dusky brown, edged with olive-green like the back; bastard-wing and primary-coverts dusky brown, the latter edged with olive-green towards their ends; quills dusky brown, edged with olive-green, yellower on the primaries; rump and upper tail-coverts slightly yellower than the back; tail-feathers dusky brown, edged with olive-green; crown of head like the back; forehead and sinciput sooty brown, with indistinct paler shaft-lines; occiput, nape, and hind neck like the back, but a little overshadowed with dusky; lores black, extending below the eye; round the eye a narrow ring of whitish; ear-coverts olive-green, as also the cheeks, the fore part of which is dusky; throat and underparts white, washed with ashy on sides of body and flanks; thighs white; under tail-coverts bright yellow; under wing-coverts and axillaries white, with yellow on edge of the wing; quills below dusky; inner edge of quills ashy. Total length 4 inches, culmen 0·55, wing 2·15, tail 1·6, tarsus 0·65.

*Hab.* New Guinea.

a. Ad. sk.

New Guinea.

Purchased. (Type of species.)

83. *Zosterops muelleri*.

*Zosterops frontalis*, *Müll. in Mus. Lugd. (nec Reichenb.): Gray, Hand-l. B. i.* p. 164, no. 2174 (1869).

*Heleia muelleri*, *Hartl. J. f. O.* 1865, p. 26.

*Adult.* General colour above ashy olive-greenish; wing-coverts dusky brown, washed or edged externally with ashy olive; quills dusky brown, edged with dull olive-yellow, the inner secondaries with ashy-olive margins like the back; upper tail-coverts olive-brown; tail-feathers brown, edged with olive-brown; crown of head scaly, the feathers being brighter olive-green, with black centres; occiput, nape, and hind neck like the back; lores golden yellow, continued in a stripe over the eye, fading into olive-yellow over the ear-coverts; in front of the eye a large black spot; round the eye a narrow ring of whitish; ear-coverts olive-yellow; feathers below the eye, cheeks, and throat pale yellow; remainder of the under surface yellowish; the fore neck and breast streaked with blackish brown; sides of the body and flanks with a few dusky streaks, scarcely perceptible; thighs dull olive-green; under tail-coverts pale yellow, with dusky centres; under wing-coverts and axillaries yellowish white, brighter yellow on the edge of the wing; quills below dusky; inner edge of quills yellowish white. Total length 5·3 inches, culmen 0·6, wing 2·7, tail 2·15, tarsus 0·7.

*Female.* Like the male. (*Hartlaub.*)

*Young.* With the head scarcely spotted at all. (*Hartlaub.*)  
*Hab.* Island of Timor.

a. Ad. sk. Timor. Purchased.

#### 84. *Zosterops frigida.*

*Zosterops frigida*, Müll. MS. in Mus. Lugd., undè

*Heleia frigida*, Hartl. J. f. O. 1865, p. 27.

*Zosterops frigida*, Gray, Hand-l. B. i. p. 164, no. 2175 (1869).

Of small size; upper surface brownish olivaceous; ground-colour of crown dull yellowish, longitudinally spotted with blackish; forehead yellow, with an orange tinge; ring of feathers round the eye not very conspicuous; throat dull yellowish; breast, abdomen, and under tail-coverts dull yellowish; an obscure moustachial streak; under wing-coverts pale isabelline; wings and tail uniform with the back; bill pale brown, paler at the tip and base of under mandible; feet pale. Total length 4", bill from forehead 4", wing 1" 9½", tail 1" 7", tarsus 7½". (*Hartlaub.*)

*Hab.* Sumatra.

#### 85. *Zosterops ficedulina.*

*Zosterops ficedulina*, Hartl. P. Z. S. 1866, p. 327; Gray, Hand-l. B. i. p. 162, no. 2127 (1869).

*Adult.* General colour above olive-green, a little brighter and more yellowish green on the rump; the lesser wing-coverts and the median coverts like the back; greater coverts dusky, edged with the same colour as the back; bastard-wing and primary-coverts dusky brown, very narrowly edged with green; quills dusky brown, externally edged with olive-green; upper tail-coverts rather more dingy olive-green; tail-feathers dusky, with olive-green edges, the two outer feathers with a small longitudinal spot of white at the tips; crown of head a little more dusky than the back, and washed with olive-green, the forehead with small and narrow streaks of white; lores pale yellow; eyelid whitish; ear-coverts light dusky olive, with an ashy shade above them on the sides of the hinder crown; cheeks and the under surface of the body pale yellow, a little brighter yellow on the fore neck, breast, and abdomen; flanks with a slight fulvescent tinge; thighs yellowish white; under tail-coverts decidedly brighter yellow; under wing-coverts and axillaries whitish, washed with pale yellow; quills below brown; inner edge of quills whitish. Total length 4.5 inches, culmen 0.45, wing 2, tail 1.55, tarsus 0.65.

*Hab.* Prince's Island, in the Bight of Benin, West Africa.

a. Ad. sk. Prince's Island. Dr. Dohrn [C.]

## 2. MELITHREPTUS.

Type.

Melithreptus, <i>Vieillot, Analyse Sc.</i> p. 46 (1816) . . . . .	M. lunulatus.
Hæmatops, <i>Gould, Proc. Zool. Soc.</i> 1836, p. 144 . . . . .	M. validirostris.
Gymnophrys, <i>Swainson, Classif. of Birds</i> , ii. p. 327 (1837) . . . . .	M. lunulatus.
Eidopsarus, <i>Swainson, loc. cit.</i> . . . . .	M. validirostris.
Idopsarus, <i>Agassiz, Nomencl. Zool. Ind.</i> p. 194 (1846).	

Bill shorter than rest of head: operculum partly covered with feathers. First primary about one third the length of the very long second primary; tip of wing formed by primaries 3, 4, 5; secondaries very short, being only two thirds the length of the wing. Tail slightly emarginated, five sixths of the wing in length. Pattern bright olive, yellow, white, and black. Sexes alike in plumage. Length of wing 2·3-3·45 inches.

*Range.* Australia.

*Key to the Species.*

- a. Crown of head black.
- a'. White band across the occiput. } *lunulatus*, p. 204.
- a''. Chin pure white. . . . . } *albigularis*, p. 205.
- b''. Chin blackish.
- a'''. Length of culmen 0·5-0·6 inch . . . . . *gularis*, p. 205.
- b'''. Length of culmen 0·75 inch . . . . . *validirostris*, p. 206.
- b'. Occiput without a white band. . . . . *melanocephalus*, p. 207.
- b. Crown of head grey, with a cream-coloured occipital band . . . . . *brevirostris*, p. 207.

1. *Melithreptus lunulatus*.

- Certhia lunulata*, *Shaw, Gen. Zool.* viii. p. 224.
- Le Fuscalbin, *Vieill. Ois. Dor.* ii. p. 95, pl. 61.
- Red-eyed Honey-eater, *Lath. Gen. Hist.* iv. p. 203.
- Meliphaga lunulata*, *Vig. & Horsf. Linn. Trans.* xv. p. 315.
- Black-crowned Honey-sucker, *Lewin, Birds New Holl.* pl. 24.
- Meliphaga atricapilla*, *Temm. Pl. Col.* 335. fig. 1.
- Meliphaga torquata*, *Swains. Zool. Ill.* 1 ser. pl. 116.
- Hæmatops lunulatus*, *Gould, Synops. B. Austr.* pt. i.
- Gymnophrys torquatus*, *Swains. Class. B.* ii. p. 327.
- Melithreptus lunulatus*, *Gray, List of Gen. Birds*, p. 21 (1841); *Gould, B. Austr.* pl. 72; *id. Handb. B. Austr.* i. p. 568; *Bp. C. A. i.* p. 395; *Gray, Hand-l. B. i.* p. 161, no. 2099; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190.
- Melithreptus chloropsis*, *Gould, P. Z. S.* 1847, p. 220; *id. B. Austr.* pl. 73; *id. Handb. B. Austr.* i. p. 570; *Bp. C. A. i.* p. 395; *Cab. Mus. Hein.* i. p. 115; *Gray, Hand-l. B. i.* p. 161, no. 2105.

*Adult.* Crown and sides of head, including the ear-coverts and cheeks, a few feathers at the angle of the chin, and a few feathers on the sides of the chest near the shoulder jet-black; all the upper parts uniform rich olive-yellow; wings and tail brown, externally washed with the colour of the back; lesser wing-coverts greyish; a narrow band across the occiput, and all the underparts, including the under wing-coverts and inner margin of remiges, pure white; "the

small bare space above the eye scarlet; feet olive; bill blackish brown; iris very dark brown" (*Gould*). Culmen 0.55-0.6 inch, wing 2.85-3.1, tail 2.2, tarsus 0.65.

The sexes are alike in plumage.

*Hab.* Australia.

<i>a, b.</i> ♂ ♀ ad. sk.	South Australia.	Sir George Grey [P.].
<i>c, d.</i> Ad. sk.	South Australia.	Gould Collection.
<i>e.</i> [♂] imm. sk.	South Australia.	Gould Collection.
<i>f, g, h.</i> Ad.;	New South Wales.	Gould Collection.
<i>i.</i> Imm. sk.		
<i>k.</i> Ad. sk.	Australia.	F. D. Godman and O. Salvin, Esqrs.
<i>l.</i> [♂] ad. sk.	West Australia.	J. Gould, Esq. [C.].
<i>m, n.</i> ♀ ad. sk.	N. S. Wales.	J. Gould, Esq. [C.].
<i>o, p.</i> ♂ ♀ ad. st.	N. S. Wales.	J. Gould, Esq. [C.].
<i>q.</i> Skeleton.		Purchased.

### Subspecies *a.* *Melithreptus albigularis.*

*Melithreptus albogularis*, *Gould*, *P. Z. S.* 1847, p. 220; *id.* *B. Austr.* pl. 74; *id.* *Handb. B. Austr.* i. p. 571; *Gray*, *Gen. B.*, *App.* p. 6; *id.* *Hand-l. B.* i. p. 161, no. 2103; *id.* *Cat. B. New Guin.* p. 56; *id.* *P. Z. S.* 1858, p. 191; *Ramsay*, *Proc. Linn. Soc. N. S. W.* i. p. 391, ii. p. 190, iii. p. 287, iv. p. 100.

*Melithreptus albigularis*, *Bp. C. A.* i. p. 395 (1850); *Reichenb. Vög. Neuhöll.* n. 554; *id.* *Handb. spec. Orn., Meropinae*, p. 137 pl. 501. figs. 3503-5; *Sharpe*, *Journ. Linn. Soc.*, *Zool.* xiii. p. 497; *Salvad. Ann. Mus. Civ. Gen.* xii. p. 80; *id.* *Orn. Papuasias etc.* ii. p. 362.

Closely allied to *M. lunulatus*, but a little smaller; upper parts more yellow and less olive, and the chin pure white; "iris dull red; bill brownish black; legs and feet greenish grey, with a tinge of blue on the front of the tarsi" (*Gould*). Wing 2.6-2.8 inches.

*Young birds* resemble the adults, but have the crown and sides of the head pale reddish brown.

*Hab.* North Australia and Southern New Guinea.

<i>a, b, c, d.</i> Ad. sk.	Cape York.	J. Gould, Esq. [C.].
<i>e-k.</i> [♂ ♀] ad. sk.	Queensland.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>l, m.</i> Juv. sk.	Queensland.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>n.</i> ♂ ad. sk.	Port Essington.	J. B. Jukes, Esq. [P.].
<i>o.</i> [♂] ad. sk.	North-western Australia.	J. R. Elsey, Esq. [P.].
<i>p.</i> Ad. sk.	S.E. New Guinea.	Mr. A. Goldie [C.].

### 2. *Melithreptus gularis.*

*Hæmatops gularis*, *Gould*, *P. Z. S.* 1836, p. 144.

*Melithreptus gularis*, *Gould*, *B. Austr.* pl. 71; *id.* *Handb. B. Austr.* ii. p. 566; *Bp. C. A.* i. p. 395; *Cab. Mus. Hein.* i. p. 116; *Gray*, *Gen. B.* pl. 40; *id.* *Hand-l. B.* i. p. 161, no. 2102; *Ramsay*, *Proc. Linn. Soc. N. S. W.* ii. p. 190 (1878).

*Melithreptus lætior*, *Gould*, *Ann. & Mag. Nat. Hist.* (4) 1875, xvi. p. 287; *id.* *B. New Guinea*, part ii.

*Adult.* Crown and sides of head black, with a narrow band of white from eye to eye across the occiput; hind neck, back, and upper tail-coverts olive-yellow; wings, wing-coverts, and tail pale ashy brown, externally narrowly edged with whitish grey; the chin blackish, shading off through grey into the pale creamy-brownish colour of the fore neck and chest; cheeks and sides of throat pure white; rest of underparts, including the under wing-coverts and the inner margin of the remiges, creamy; "bill black; feet brownish orange; iris hazel; bare skin above the eye beautiful bluish green" (*Gould*). Culmen 0.55-0.6 inch, wing 3.3-3.45, tail 2.6, tarsus 0.73.

The sexes are alike in plumage. The young birds have the gape, lower mandible, and feet yellowish orange.

*Hab.* South-eastern Australia.

*Obs.* In the collection of the British Museum is a specimen from the Gould collection, the type of his *M. latior*, which has the hind neck and upper tail-coverts bright yellow, the mantle and rest of the back rich olive-yellow; the underparts, except a slight shade on the throat and chest and the black chin, are pure white. This is apparently a very old male in full breeding-plumage.

<i>a.</i> Ad. sk.	South Australia.	Sir George Grey [P.].
<i>b, c, d, e.</i> [♂ ♀] ad. sk.	New South Wales.	Gould Collection.
<i>f, g.</i> Ad. sk.	New South Wales.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>h.</i> [♂] ad. sk.	Interior of Australia.	Gould Collection. (Type of <i>M. latior</i> .)

### 3. *Melithreptus validirostris*.

? *Sturnus virescens*, *Wagl. Syst. Av. Sturnus*, sp. 5.

*Hæmatops validirostris*, *Gould, P. Z. S.* 1836, p. 144.

*Eidopsarus bicinctus*, *Swains. Anim. in Menag.* p. 344; *id. Class. B.* ii. p. 327.

*Melithreptus virescens*, *Gray, Gen. B. i.* p. 128.

*Melithreptus validirostris*, *Gould, B. Austr.* pl. 70; *id. Handb. B. Austr. i.* p. 565; *Bp. C. A. i.* p. 395; *Gray, Hand-l. B. i.* p. 161, no. 2101; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190.

This bird resembles *M. gularis* in general distribution of colours. Crown and sides of head and a large patch on the chin black; cheeks and a rather broad band extending from eye to eye round the occiput pure white; the wing-coverts, hind neck, and outer margins of the remiges pale ashy brown with a slight olive tinge; back, upper tail-coverts, and outer webs of tail-feathers olive-yellow; rest of tail and wings brown; under wing-coverts and inner margin of remiges pale fulvous; fore neck and chest greyish white, changing into pale reddish brown on the flanks, thighs, and under tail-coverts, and inclining to creamy white on the centre of the abdomen; "bare skin behind the eye white, tinged with bright green; bill black; feet brownish horn-colour; iris reddish brown" (*Gould*). Culmen 0.78 inch, wing 3.3, tail 2.7, tarsus 0.83.

The bill of this species is very strong, and much broader than in the other allied forms.

*Young birds* have the bill and feet and the eyelids and occipital band yellow.

*Hab.* Tasmania.

<i>a, b.</i> ♂ ad. sk.	Tasmania.	J. Gould, Esq. [P.].
<i>c.</i> Ad. sk.	Tasmania.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>d.</i> Ad. ; <i>e, f.</i> ♂ juv. sk.	Tasmania.	R. Gunn, Esq. [P.].

#### 4. *Melithreptus brevirostris.*

*Melithreptus brevirostris*, *Fig. & Horsf. Linn. Trans.* xv. p. 315; *Gray, Hand-l. B.* i. p. 161, no. 2100; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190.

*Adult.* Crown and sides of head pale ashy brown; a band of dull cream-colour extending from eye to eye round the occiput; mantle, back, and upper tail-coverts pale greyish olive; wings and tail brown, the former edged with greyish white, the latter with olive-yellow; all the underparts brownish creamy; inner margin of remiges white; chest and chin with a faint grey tinge. Culmen 0·57 inch, wing 2·9, tail 2·3, tarsus 0·65.

*Hab.* Australia.

*Obs.* The type of *M. brevirostris*, *Vig. & Horsf.*, is undoubtedly an immature bird of the same species to which the birds described above must belong. Crown of head and ear-coverts dull reddish brown; all the underparts, including the under wing-coverts, dull brownish cream-colour. Culmen 0·52 inch, wing 2·75, tail 2·1, tarsus 0·63.

<i>a.</i> [Imm. sk.]	New South Wales.	Linnean Society [P.]. (Type of species.)
<i>b.</i> [♂] ad. sk.	New South Wales.	J. Gould, Esq.
<i>c.</i> Ad. sk.	New South Wales.	Gould Collection.

#### 5. *Melithreptus melanocephalus.*

*Meliphaga atricapilla*, *Jard. & Selb. Ill. Orn.* pl. 134. fig. 1.

*Meliphaga affinis*, *Less. Rev. Zool.* 1839, p. 167.

*Melithreptus melanocephalus*, *Gould, P. Z. S.* 1845, p. 62; *id. B. Austr.* pl. 75; *id. Handb. B. Austr.* i. p. 573; *Bp. C. A. i.* p. 395; *Gray, Hand-l. B.* i. p. 161, no. 2104; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190.

*Adult.* Head all round jet-black, without an occipital band; hind neck, mantle, back, and upper tail-coverts olive-yellow; wing-coverts, wings, and tail greyish brown, with narrow greyish edges; a few feathers along the sides of the neck and upper chest black; all the rest of the underparts, including the under wing-coverts and inner margin of the remiges, white, tinged with grey on the flanks; "bill black; iris reddish brown; feet brown; bare skin over the eye pearly white, slightly tinged with green" (*Gould*). Culmen 0·45-0·52 inch, wing 3-3·05, tail 2·3-2·5, tarsus 0·7.

*Young birds* have the upper throat yellowish white instead of black; bill yellowish at the base.

*Hab.* Tasmania.

<i>a.</i> ♂ ad. sk.	[Tasmania.]	J. B. Jukes, Esq. [C.].
<i>b, c, d, e.</i> Ad. sk.	[Tasmania.]	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>f.</i> Ad. sk.	Tasmania.	Antarctic Expedition.
<i>g, h.</i> Ad. st.	Tasmania.	R. Gunn, Esq. [P.].
<i>i.</i> Juv. sk.	Tasmania.	R. Gunn, Esq. [P.].

### 3. PLECTRORHYNCHUS.

Type.

Plectorhyncha, <i>Gould (nec Lacépède), Proc. Zool. Soc.</i> 1837, p. 153 .....	P. lanceolatus.
Plectorhynchus, <i>Wiegmann, Arch. f. Naturg.</i> 1838.	
Plectorhamphus, <i>Gray, List of Genera of Birds</i> , 1840.	P. lanceolatus.
Plectorhamphus, <i>Strickland (1841)</i> .....	P. lanceolatus.

Bill slightly shorter than rest of head, quite straight and much pointed, culmen rounded. Secondaries above five sixths the length of the wing. Tail square, and nine tenths the length of the wing. Pattern plain: underparts white; upper parts brown, mottled with whitish on the head. Length of wing about 4·5 inches.

*Range.* Australia.

#### 1. Plectorhynchus lanceolatus.

Plectorhyncha lanceolata, <i>Gould, P. Z. S.</i> 1837, p. 153; <i>id. B. Austr.</i> iv. pl. 47; <i>id. Handb. B. Austr.</i> i. p. 525; <i>Reichenb. Natürl. Syst.</i> <i>Vög.</i> pl. 35; <i>id. Handb., Meropinee</i> , p. 127, pl. 493. figs. 3470-71; <i>Diggles, Orn. Austr.</i> pl.; <i>Ramsay, Proc. Linn. Soc. N. S. W.</i> ii. p. 189.
Melithreptus lanceolatus, <i>Gray, Gen. B.</i> i. p. 128; <i>id. Hand-l. B.</i> i. p. 161, no. 2106.
Plectorhyncha lanceolata, <i>Bp. C. A.</i> i. p. 393.

*Adult.* Crown of head, ear-coverts, sides of neck, and hind neck mottled with blackish brown and white; centre of back greyish brown, each feather darker at the centre; rest of upper parts, including the wing-coverts, greyish brown; wings and tail light brown, with pale external margins to most of the feathers; cheeks and all the underparts, including under surface of the wings, pure white, except some feathers on the sides of the fore neck, which are mottled black and white; "bill dark bluish horn-colour; feet light blue; iris brown" (*Gould*).

Ad. ♂. Culmen 0·8 inch, wing 4·7, tail 4·4, tarsus 1·1.

Ad. ♀. " 0·75 " " 4·4, " 4·2, " 1·0.

*Females and young birds* resemble the male exactly in coloration.

*Hab.* Australia.

<i>a, b.</i> [♂ ♀] ad. sk.	Murray River.	Gould Collection.
<i>c.</i> Ad. sk.	New South Wales.	Gould Collection.
<i>d, e.</i> Ad. sk.	New South Wales.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>f g.</i> Ad. st.	N.E. Australia.	Sir T. Mitchell [P.].



## Subfamily III. MELIPHAGINÆ.

I have been unable to arrange the genera referred to this Subfamily, according to the plan of this work, in a Key which would afford assistance to the student in determining them. Each genus, however, will be found to be properly defined by its diagnosis.

## 1. GLYCYPHILA.

	Type.
Gliciphila, <i>Swains. Class. B. ii. p. 326 (1837)</i> . . . . .	<i>G. fulvifrons.</i>
Glyciphila, <i>Gray, List Gen. B. p. 15 (1840).</i>	
Glycyphila, <i>Agassiz, Nomencl. Zool. Ind. Univ. p. 163 (1846).</i>	
Stigmatops, <i>Gould, Handb. B. Austr. i. p. 500 (1865) (sine diagnosi!)</i> . . . . .	<i>G. ocularis.</i>
Glycichæra, <i>Salvad. Ann. Mus. Civ. Gen. xii. p. 335 (1878)</i>	<i>G. fallax.</i>
Glycychæra, <i>Salvad. Orn. Papuas. e Molucche, ii. p. 311 (1881).</i>	

Bill a little longer than, or equal to, the rest of the head, broad at base. Nostrils operculated, not covered by the feathers. First primary comparatively long; tip of wings formed by the third to fifth primaries; secondaries three fourths the length of wing; tail square or slightly emarginated, and a little longer than the wings; inner web of quills fulvous. Anterior toes short. Tarsus comparatively long and covered with many transverse scales.



Head of *Glycyphila ocularis.*

*Range.* Australia, New Caledonia, Loyalty Islands, New Guinea, Aru Islands, Waigiu.

*Key to the Species.*

- a. Feathers behind the eye of normal shape; inner web of quills edged with fulvous; breast and abdomen white . . . . . (Subgenus GLYCYPHILA.)
- a'. Throat white, forehead fulvous . . . . . *fulvifrons*, p. 210.
- b'. Throat blackish, forehead white . . . . . *albifrons*, p. 211.
- c'. Dark-brown cross markings to feathers of underparts.
- a''. Chest only cross-barred . . . . . *fasciata*, p. 212.
- b''. Bars extending over most of underparts. . . . . *undulata*, p. 212.
- b. Feathers behind the eye of normal shape; flanks very fluffy; inner edge of remiges white; abdomen dull yellow. Tail slightly emarginate. (Subgenus GLYCYCHÆRA.) . . . . .
- } *fallax*, p. 213.
- } *poliocephala*, p. 213.

- c. Feathers behind the eye generally peculiar in shape, being short, blackish at base, silky white or yellow at terminal half, giving the postocular region a spotted appearance . . . . . (Subgenus STIGMATOPS.)
- d'. Wings not edged with white.
- c''. Ear-coverts brown; upper parts uniform olive-brown.
- a'''. Postocular feathers glossy yellow; underparts dingy brownish white or grey . . . . . *ocularis*, p. 213.
- b'''. A white subocular spot; underparts white, faintly barred with brownish . . . . . *modesta*, p. 215.
- d''. Ear-coverts silky or silvery white; underparts brownish, mottled grey and white.
- c'''. Crown ashy grey . . . . . *incana*, p. 216.
- d'''. Crown olive-brown . . . . . *poliottis*, p. 217.
- e''. Ear-coverts and subocular region with silvery white spots.
- e'''. Feathers of breast brownish, edged with white . . . . . *albiaricularis*, [p. 217.]
- f'''. Feathers of breast pale olive, with peculiar scale-shaped cross markings . . . . . *squamata*, p. 217.
- e. Wings edged with white; underparts white, upper parts fuscous . . . . . *nisoria*, p. 218.

### 1. *Glycyphila fulvifrons*.

? Black-eyed Creeper, *Lath. Gen. Syn. Suppl.* ii. p. 165.

*Certhia melanops*, *Lath. Ind. Orn. Suppl.* p. xxxvi.

*Certhia melivora*, *Shaw, Gen. Zool.* viii. pt. 1, p. 245.

*Certhia fulvifrons*, *Lewin, B. New S. W.* pl. 22 (1838).

*Meliphaga albiventris*, *Steph. in Shaw's Gen. Zool.* xiv. p. 261.

*Philedon rubrifrons*, *Less. Voy. Cog.* i. p. 646 (1826).

*Meliphaga fulvifrons*, *Vig. & Horsf. Linn. Trans.* xv. p. 317 (1827).

*Glycyphila fulvifrons*, *Swains. Class. B.* ii. p. 326 (1837); *Cab. Mus.*

*Hein.* i. p. 117; *Bp. C. A.* i. p. 393; *Gould, B. Austr.* iv. pl. 28;

*id. Handb. B. Austr.* i. p. 495; *Reichenb. Meropinae*, no. 263,

pl. 487. figs. 3439-41; *Gray, Hand-l. B.* i. p. 155, no. 2002;

*Ramsay, P. Linn. Soc. N. S. W.* ii. p. 188.

*Glycyphila melanops*, *Gray, Gen. B.* i. p. 119, pl. 38. fig. 2 (1847).

*Adult male.* Forehead, under wing-coverts, and inner margin of quills rich reddish fulvous; a whitish streak extending from the nostrils over the eye; præocular region and ear-coverts dark brown; hinder margin of ear-coverts pale fulvous or whitish; feathers of the mantle and hind neck dark brown, each feather with a paler streak down the centre and slightly washed with olive; lower back and upper tail-coverts greyish brown; wings, wing-coverts, and tail blackish brown, the quills externally edged with olive-yellow or pale brown; some of the innermost secondaries edged with whitish; throat, cheeks, centre of breast and abdomen, and under tail-coverts dull white; flanks washed with pale brownish grey; feathers of the chest and sides of neck dull blackish brown edged with whitish, giving these parts a somewhat mottled appearance; "bill blackish brown; feet greenish grey; iris brown" (*Gould*).

The *female* resembles the male in coloration, but is smaller.

♂. Culmen 0·8–0·9 inch, wing 3·2–3·3, tail 2·9, tarsus 0·9.

♀. „ 0·8 „ „ 2·9–3·0, „ 2·65, „ 0·85.

*Young birds* are dark brown above, streaked with buffy white; crown of head like the back; throat dull yellow; sides of neck, fore neck, and upper breast mottled with brown and whitish, the central parts of the feathers being whitish; under surface of wings and rest of underparts as in the adult.

*Immature birds* still retain the yellowish throat after they have acquired the rich fulvous colour on the crown.

*Hab.* Australia and Tasmania.

<i>a, b.</i> ♂ ♀ ad. sk.	South Australia.	Sir G. Grey [P.].
<i>c, d.</i> [♂] ad. sk.	South Australia.	Gould Collection.
<i>e.</i> ♂ ad.; <i>f.</i> Juv. sk.	West Australia.	Gould Collection.
<i>g.</i> Ad. sk.	N. S. Wales.	Gould Collection.
<i>h, i.</i> Ad. sk.	N. S. Wales.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>k, l.</i> Ad. sk.	N. S. Wales.	Linnean Society [P.].
<i>m.</i> ♀ ad.; <i>n.</i> ♂ imm. sk.	Tasmania.	J. Gould, Esq. [C.].
<i>o, p.</i> Ad. sk.	Tasmania.	Ronald Gunn, Esq. [P.].

## 2. *Glycyphila albifrons.*

*Glycyphila albifrons*, *Gould, P. Z. S.* 1840, p. 160; *id. B. Austr.* iv. pl. 29; *id. Handb. B. Austr.* i. p. 497; *Cab. Mus. Hein.* i. p. 117; *Bp. C. A. i.* p. 393; *Gray, Gen. B. i.* p. 11; *Reichenb. Mero-pinae*, no. 269, pl. 487. figs. 3442–43; *Gray, Hand-l. B. i.* p. 155, no. 2003; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 188.

*Adult.* Forehead, lores, a narrow ring round the eye, and a narrow line running from the angle of the lower mandible white; crown of the head black, each feather slightly margined with whitish; ear-coverts silvery blackish grey, behind which is an irregular line of white; all the upper surface brown, irregularly margined with white, producing a mottled appearance; rump and upper tail-coverts rufous-brown; wings and tail brown, the primaries margined externally with yellowish green; chin, throat, and fore neck brownish black, some of the feathers of the throat with small white tips; under wing-coverts and inner margin of quills fulvous; breast and abdomen white, striped with blackish brown on the flanks; “irides dark brown, bill black; feet blackish brown” (*Gould*). Culmen 0·8 inch, wing 3·2, tail 3, tarsus 0·8.

The *female* is like the male in plumage, but smaller in size.

*Hab.* Greater portion of Australia.

<i>a, b.</i> [♂ ♀] ad. sk.	South Australia.	Sir G. Grey [P.].
<i>c, d.</i> Ad. sk.	South Australia.	J. Gould, Esq. [C.].
<i>e.</i> Ad. sk.	South Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].

3. *Glycyphila fasciata*.

*Glycyphila fasciata*, *Gould*, *P. Z. S.* 1842, p. 137; *id.* *B. Austr.* iv. pl. 30; *Gray*, *Gen. B.* i. p. 119; *Bp.* *C. A.* i. p. 393; *Gould*, *Handb. B. Austr.* i. p. 499; *Reichenb.* *Meropinae*, no. 266, pl. 487. figs. 3437-38; *Ramsay*, *Proc. Linn. Soc. N. S. W.* ii. p. 188.

*Glycyphila pectoralis*, *Gray*, *Hand-l. B.* i. p. 155, no. 2004 (1869).

*Adult male*. Crown of head and nape blackish brown, each feather narrowly edged with white; mantle and the wing-coverts brown, each feather edged with pale buff; rest of back and upper tail-coverts buffy brown, inclining to rufous; wings and tail dark brown, externally edged with whitish buff; under wing-coverts, inner margin of quills, lower abdomen, and under tail-coverts pale creamy buff; chin, cheeks, ear-coverts and throat, centre of breast and abdomen white; feathers of chest and sides of breast also white, but with a broad subterminal blackish-brown bar to each feather; flanks whitish, washed with pale buff, the feathers with dark-brown streaks down the centre; a narrow streak of blackish brown extending backwards along the inner margin of the cheek on each side; "bill greenish grey; feet aurora-red; iris reddish brown" (*Gould*). Culmen 0.55-0.65 inch, wing 2.6-2.75, tail 1.8-2.0, tarsus 0.7.

*Female*. Resembles the male, but is slightly smaller.

*Young birds* have the crown and hind neck uniform dull brown; chest and fore neck brownish white, without the dark bars; under wing-coverts blackish brown.

*Hab.* Australia, excepting the north-eastern and north-western portions.

<i>a, b, c.</i> ♀ ad. sk.	N.W. Australia.	J. R. Eelsey, Esq. [P.].
<i>d, e, f.</i> Ad. sk.	North Australia.	F. D. Godman and O Salvin, Esqrs. [P.].
<i>g, h.</i> Ad. sk.	North Australia.	Gould Collection.
<i>i.</i> [♀] juv. sk.	Gould Island ( <i>J. Macgillivray</i> ).	Voy. H.M.S. 'Rattlesnake.'
<i>k.</i> Ad. st.	Port Essington.	(Type of <i>G. pectoralis</i> , Gray.) J. Gould, Esq. [C.].

4. *Glycyphila undulata*.

*Certhia undulata*, *Sparrman*, *Mus. Carls.* i. pl. 34 (1786).

*Certhia fasciata*, *Forster*, *Descr. Animal.* p. 263 (1844).

*Glycyphila fasciata* (*Forst.*), *Gray*, *Hand-l. B.* i. p. 155, no. 2010.

*Glycyphila fasciata*, *Layard*, *Ibis*, 1877, p. 362, 1880, p. 224, 1881, p. 133, 1882, p. 505; *Tristram*, *Ibis*, 1879, p. 182.

*Adult*. Upper parts, including the wings and tail, brown; feathers of mantle and hind neck with whitish shafts; feathers of occiput and sides of head brown, edged with white; underparts of body white, with numerous brown bars; flanks and abdomen washed with brownish grey; under wing-coverts and inner edge of quills fulvous; bill black. Culmen 1.15 inch, wing 3.4, tail 3.1, tarsus 0.8.

*Hab.* New Caledonia.

<i>a.</i> Ad. sk.	New Caledonia.	Purchased.
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5. *Glycyphila fallax*.

*Euthyrhynchus*? sp., *Salvad. Ann. Mus. Civ. Gen.* vii. p. 953 (1875), ix. p. 23.

*Glycichæra fallax*, *Salvad. op. cit.* xii. p. 335 (1878), xvi. p. 74; *d'Albertis et Salvad. op. cit.* xiv. p. 78.

*Glycychæra fallax*, *Salvad. Orn. Papuasias etc.* ii. p. 310 (1881), iii. App. p. 542.

*Tephras whitei*, *Ramsay, P. Z. S.* 1882, p. 357; *id. Ann. Mus. Civic. Genov.* xviii. p. 422, note.

*Adult.* Upper parts olive, the head tinged with grey; abdomen dull yellow; chest and throat faintly mottled with olive; flanks very fluffy, washed with olive-grey; wings and tail brown, externally edged with olive; remiges with white margins to the inner web; under wing-coverts pale yellowish; bill and feet brown. Culmen 0.48 inch, wing 2.3–2.5, tail 1.65, tarsus 0.7.

*Hab.* New Guinea and Aru Islands. (*Salvadori*.)

6. *Glycyphila poliocephala*.

*Euthyrhynchus*, sp., *Salvad. Ann. Mus. Civ. Gen.* x. p. 34 (1877).

*Glycichæra poliocephala*, *Salvad. op. cit.* xii. p. 336 (1878), xvi. p. 74.

*Glycychæra poliocephala*, *Salvad. Orn. Papuasias etc.* ii. p. 311 (1881).

Head and neck ashy grey; rest of upper parts greyish olive; wings and tail brown, externally edged with olive; inner web of remiges edged with white; under wing-coverts pale yellow and greyish; underparts pale yellowish; throat and flanks slightly mottled with grey. Culmen 0.6 inch, wing 2.5, tail 1.95, tarsus 0.7.

*Hab.* New Guinea.

*Obs.* The two type specimens of this species are in the Museum of Genoa, preserved in spirit of wine. *Salvadori* remarks that they differ from *G. fallax* in having the upper parts more greyish and the culmen less curved towards the tip. Both species are remarkable for the fluffy feathers on their flanks.

7. *Glycyphila ocellaris*.

*Meliphaga indistincta*, *Vig. & Horsf. Linn. Trans.* xv. 1826, p. 317.

*Glyciphila* (?) *ocellaris*, *Gould, P. Z. S.* 1837, p. 154.

*Glyciphila ocellaris*, *Gould, B. Austr.* iv. pl. 31; *Gray, Gen. B.* i. p. 113; *Bp. C. A.* i. p. 393; *Reichenb. Vög. Neuholl.* no. 346; *Gray, P. Z. S.* 1858, p. 174; *id. Cat. B. New Guin.* p. 23; *id. P. Z. S.* 1861, p. 435; *Wallace, P. Z. S.* 1863, p. 486; *Rosenberg, J. f. O.* 1864, p. 122; *id. Malay. Archip.* p. 364.

*Lichmera ocellaris*, *Cab. Mus. Hein.* i. p. 118 (1850).

*Stomiopera ocellaris*, *Reichenb. Meropinae*, p. 109, pl. 479. figs. 3399–4000 (1852).

*Ptilotis ocellaris*, *Finsch, Neu-Guinea*, p. 163, partim (1865).

*Stigmatops ocellaris*, *Gould, Handb. B. Austr.* i. p. 500; *Gray, Hand-l. B.* i. p. 155, no. 2011; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 189; *Salvad. Ann. Mus. Civ. Gen.* xvi. p. 75.

*Stigmatops ocellaris*, var., *Gray, Hand-l. B.* i. p. 155, no. 2011.

*Stigmatops argenteauris*, pt., *Salvadori, Ann. Mus. Civic. Gen.* xii. p. 336 (1878).

*Race G. chloris.*

*Stigmatops chloris*, *Salvad. in Mus. Lugd.*; *id. Ann. Mus. Civ. Gen.* xii. p. 337 (1878), xvi. p. 76; *id. Orn. Papuas. e Molucche*, ii. p. 325. *Stigmatops argentauris* (pt.), *Salvad. Ann. Mus. Civ. Gen.* xii. p. 336 (1878).

*Race G. subocularis.*

*Glyciphila* (?) *subocularis*, *Gould, P. Z. S.* 1837, p. 154.

*Glyciphila ocellaris*, *Gould, B. Austr.* iv. pl. 31 (partim).

*Stigmatops subocularis*, *Gould, Handb. B. Austr.* i. p. 501; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 189.

*Glyciphila subocularis*, *Gray, Hand-l. B.* i. p. 155, no. 2012.

*Adult male.* Upper parts of head, hind neck, mantle, and back uniform dark olive-brown, changing into yellowish brown on the rump and upper tail-coverts; wings and tail dark brown externally, strongly washed with greenish yellow; all the underparts dull yellowish white, strongly washed with brownish grey on the breast and fore neck; behind the eye a small patch of peculiar, glossy yellow feathers; the feathers below the eye very short, blackish at base, with glossy silvery tips; bill dark brown; feet grey; iris light red. Culmen 0·7 inch, wing 2·6–2·8, tail 2·2, tarsus 0·65.

The sexes are alike in plumage.

*Hab.* North Australia.

In the Aru Islands, Lombok, and Timor *G. ocellaris* seems to be represented by a larger and slightly more greyish race, with whitish-yellow ear-coverts (*G. chloris*): adult male—culmen 0·8–0·83 inch, wing 2·8–3·0, tail 2·2–2·3, tarsus 0·7. In North-western Australia *G. ocellaris* is partly replaced by a smaller and slightly more yellowish-tinted race (*G. subocularis*): culmen 0·6–0·7 inch, wing 2·3–2·5, tail 2, tarsus 0·61. Intermediate forms, however, frequently occur.

*a. Island Race (G. chloris).*

<i>a, b, c.</i> ♂ ♀ ad. sk.	Aru Islands.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>d, e.</i> ♂ ad. sk.	Aru Islands.	A. R. Wallace, Esq. [C.].
<i>f.</i> [♂] ad. sk.	Lombok.	A. R. Wallace, Esq. [C.].
<i>g, h.</i> Ad. sk.	Mysol ( <i>Hoedt</i> ).	Gould Collection.

*β. Continental Race (G. ocellaris).*

<i>a.</i> ♂ ad. sk.	Percy Island ( <i>Dr. Cop-pinger</i> ).	Voy. H.M.S. 'Alert.'
<i>b.</i> [♀] ad. sk.	Australia.	Linnean Society [P.]. (Type of <i>Meliph. indistincta</i> , Vig. & Horsfield.)
<i>c, d.</i> Ad. sk.	Australia.	Gould Collection.
<i>e.</i> ♀ ad. sk.	Queensland.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>f, g.</i> ♂ ad. sk.	Port Essington.	Capt. W. Chambers [P.].
<i>h.</i> [♂] ad. sk.	Port Essington.	Dr. Sibbald [P.].
<i>i.</i> [♂] ad. sk.	Port Essington.	Gould Collection.
<i>k.</i> Imm. sk.	Australia.	Gould Collection.

<i>l.</i> Ad. sk.	Moreton Bay ( <i>Strange</i> ).	Gould Collection.
<i>m, n.</i> Ad. sk.	Liverpool Plains.	J. Gould, Esq. [C.].
<i>o, p.</i> Ad. sk.	West Australia.	J. Gould, Esq. [C.].

γ. *G. subocularis*.

<i>a, b, c.</i> Ad. sk.	Queensland.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>d.</i> [♂] ad. sk.	Port Essington.	Dr. Sibbald [P.].
<i>e</i> Ad. sk.	Interior of S. Australia.	Captain Sturt [C.].
<i>f.</i> ♂ ad. sk.	Port Darwin, Nov. 1881 ( <i>Dr. Coppinger</i> ).	Voy. H.M.S. 'Alert.'
<i>g.</i> Ad. sk.	N.W. Australia.	Gould Collection. (Type of species.)

Subspecies α. *Glycyphila argentauris*.

*Ptilotis argentauris*, *Finsch, Abhandl. naturwiss. Verein zu Bremen*, ii. p. 364 (1870).

*Stigmatops argentauris* (pt.), *Salvad. Ann. Mus. Civ. Gen.* xii. p. 336 (1878), xvi. p. 76; *id. Orn. Papuasias etc.* ii. p. 325.

General colour greyish olive; wings and tail inclining to yellowish; underparts grey; the feathers of the breast and abdomen margined with yellow; ear-coverts silvery white; subocular region with brownish spots; bill and feet brown; base of mandible pale. Culmen 0.6 inch, wing 2.62, tail 2.1, tarsus 0.71. (*Salvadori*.)

*Hab.* Waigiou.

8. *Glycyphila modesta*.

*Glycyphila modesta*, *Gray, P. Z. S.* 1858, pp. 174, 190 (*nec* 1859, p. 160); *id. Cat. B. New Guin.* p. 23; *id. P. Z. S.* 1861, p. 434; *Rosenb. Nat. Tijdschr. Ned. Ind.* xxv. p. 236; *id. J. f. O.* 1864, p. 122; *Finsch, Neu-Guin.* p. 164; *Gray, Hand-l. B.* i. p. 155, no. 2006; *Meyer, Sitzber. Ak. Wiss. Wien*, lxx. p. 215; *Sharpe, Proc. Linn. Soc.* xiii. pp. 316, 496; *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 73; *Rosenberg, Malay. Archip.* p. 364; *Salvad. Orn. Papuasias etc.* ii. p. 307.

*Glycyphila subfasciata*, *Ramsay, P. Z. S.* 1858, p. 385, 1875 p. 594; *Gray, Hand-l. B.* i. p. 155, no. 2007; *Gould, B. New Guin.* iii. pl. 13; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 188, iii. p. 286, iv. p. 100; *Salvad. Ibis*, 1879, p. 325.

*Adult male.* All the upper parts uniform brown, slightly paler on the outer webs of the wing- and tail-feathers and on the upper tail-coverts; sides of head dirty brown, feathers with whitish shafts; part of the lores, a spot under the eye, cheeks, and all the rest of the underparts white; feathers of the fore neck and chest and the under wing-coverts faintly barred with pale brownish; inner margin of quills and part of the flanks pale fulvous; bill and feet reddish brown.

The *female* resembles the male, but is slightly smaller.

*Young birds* have the breast marked with longitudinal dusky spots.

Ad. ♂. Culmen 0·58 inch, wing 2·65, tail 1·7, tarsus 0·61.

Ad. ♀. „ 0·6 „ „ 2·5, „ 1·55, „ 0·61.

*Hab.* New Guinea, Aru Islands, and Cape York district in Australia.

- a. ♀ ad. sk. Rockingham Bay, Feb. 1868 Gould Collection. (Co-type of *G. subfasciata*, Ramsay.)  
(*E. P. Ramsay*).  
b, c. Ad. sk. Somerset, Cape York. Gould Collection.  
d. Ad. sk. Cape York. F. D. Godman and O. Salvin, Esqrs. [P.].  
e. Ad. sk. Aru Islands. F. D. Godman and O. Salvin, Esqrs. [P.].  
f. ♀ ad. sk. Aru. A. R. Wallace, Esq. [C.].  
(Type of species.)  
g. ♂ ad. sk. S.E. New Guinea (*Dr. James*). Gould Collection.

### 9. *Glycyphila incana*.

*Certhia incana*, *Latham, Ind. Orn. i.* p. 296 (1790).

*Certhia chlorophæa*, *Forster, Descr. Anim. p.* 264 (1844).

*Glycyphila modesta*, *Gray, P. Z. S.* 1859, p. 160 (*nec* 1858, p. 174);  
*id. Cruise of the 'Curaçoa,'* pl. iv. fig. 1.

*Glycyphila chlorophæa*, *Gray, P. Z. S.* 1859, p. 160.

*Glycyphila flavotincta*, *Gray, Ann. & Mag. Nat. Hist.* 1870, v. p. 331.

*Glycyphila caledonica*, *Gray, Hand-l. B. i.* p. 155, no. 2005 (1869).

*Glycyphila incana*, *Gray, Hand-l. B. i.* p. 155, no. 2009.

*Glycyphila incana*, *Layard, Ibis*, 1877, p. 362.

*Glycyphila modesta*, *Layard, Ibis*, 1877, p. 362.

*Glycyphila flavotincta*, *Layard, Ibis*, 1878, pp. 270, 280; *Tristram, Ibis*, 1879, p. 191, 1880, p. 291.

*Glycyphila satelles*, *Tristram, Ibis*, 1879, p. 185; *Layard, Ibis*, 1880, p. 381.

*Glycyphila incana*, *Tristram, Ibis*, 1880, p. 381.

*Glycyphila chlorophæa*, *Layard, Ibis*, 1882, p. 505.

*Adult female* (type of *G. modesta*, Gray, 1859). General colour above dull olive-brown, inclining to ashy grey on the head; wings, wing-coverts, and tail dark brown, strongly washed with olive-yellow; part of cheeks and ear-coverts shining silvery grey; throat, fore neck, and chest brownish grey varied with ashy white, inclining to dull whitish on the abdomen and under tail-coverts, tinged with yellowish brown on the flanks; under wing-coverts and inner margin of quills dull whitish; bill black. Culmen 0·8 inch, wing 2·95, tail 2·4, tarsus 0·76.

The *adult male* closely resembles the female in the coloration of the upper parts; the only difference is that the olive-yellow colour is slightly more pronounced, whilst the edge of the wing, the axillaries, and nearly all the underparts of the body are washed with dingy brownish yellow. Culmen 0·85–0·95 inch, wing 3·05, tail 2·6, tarsus 0·83.

*Hab.* New Caledonia and New Hebrides.

- a. ♂ ad. sk. Nu, New Caledonia. J. Macgillivray, Esq. [C.].  
(Type of *G. modesta*, Gray.)  
b, c. [♂] ad. sk. Erromango, Aug. 1865. J. Brenchley, Esq. [P.].



10. *Glycyphila poliotis*.

*Glycyphila poliotis*, *Gray, P. Z. S.* 1859, p. 160; *id. Hand-l. B.* i. p. 155, n<sup>o</sup>. 2013.

*Glycyphila poliotis*, *Layard, Ibis*, 1877, p. 362, 1880, p. 381.

General colour above olive-brown; wings and tail strongly washed with yellowish green on their outer webs; the small and peculiar feathers beneath the eye black at base, silvery white at their tips; a spot behind the eye and upper margin of ear-coverts blackish; ear-coverts silvery grey; all the underparts pale brownish grey, slightly washed with dingy yellow, palest on the abdomen, under tail-coverts, and inner margin of quills; bill black; iris yellowish white; feet horn-colour. Culmen 0.8-0.9 inch, wing 2.75, tail 2.4, tarsus 0.75.

*Hab.* Loyalty Islands.

*a, b.* Ad. sk.

Loyalty Islands.

Sir George Grey [P.]  
(Types of species.)

11. *Glycyphila albiauricularis*.

*Stigmatops albo-auricularis*, *Ramsay, Proc. Linn. Soc. N. S. W.* iii. pp. 75, 285 (1878), *id.* iv. p. 100; *Salvadori, Ibis*, 1879, p. 325; *id. Ann. Mus. Civ. Gen.* xvi. p. 76; *id. Orn. Papuasias etc.* ii. p. 324.

*Adult.* Upper parts dingy fuscous, with slightly darker centres to the feathers; remiges externally edged with olive, internally with white; axillaries white; sides of head, neck, breast, and abdomen mottled with white and brownish, the feathers being brown and edged with white; under tail-coverts and flanks white, inclining to fuscous toward the centre; subocular region and ear-coverts with silvery white spots; bill black; feet lead-colour. Culmen 0.9 inch, wing 2.7, tail 2.4, tarsus 0.7. (*Ramsay.*)

*Hab.* South-eastern New Guinea.

12. *Glycyphila squamata*.

? *Glycyphila* nov. spec., *Rosenberg, Reis. naar Zuidoostereil*, p. 86 (1867).

*Stigmatops squamata*, *Salvad. Ann. Mus. Civ. Gen.* xii. p. 337 (1878), xvi. p. 76 (1880); *id. Orn. Papuasias etc.* ii. p. 326; *Sclater, P. Z. S.* 1883, p. 198.

*Nectarinia*, sp. incogn. ♀, *Sclater, P. Z. S.* 1883, p. 51.

*Adult.* Upper parts olive, paler on the rump and upper tail-coverts; underparts pale olive; throat yellowish; feathers of breast olive, broadly edged with greenish white; subocular region brown, with white spots; cheeks greyish; ear-coverts whitish grey; wings brownish grey, washed with greenish; tail olive; bill black; feet lead-colour. Culmen 1.2 inch, wing 3, tail 2.4, tarsus 0.9.

*Young birds* have the peculiar scale-shaped cross markings on the breast less developed.

*Hab.* Molucca Islands.

a. ♂ ad. sk.	Larat, Timor Laut, Ang. 1882 ( <i>H. O. Forbes</i> ).	Brit. Assoc. [P.].
b. ♀ ad. sk.	Loetoer, Timor Laut, Sept. 1882 ( <i>H. O. Forbes</i> ).	Brit. Assoc. [P.].

### 13. *Glycyphila nisoria*.

*Meliphaga nisoria*, Müller, *Mus. Lugd.*, ♀ (*teste Salvad.*).

*Glycyphila nisoria*, *Salvad. Ann. Mus. Civ. Gen.* xii. p. 335 (1878),  
xvi. p. 74 (1880); *id. Orn. Papuasias etc.* ii. p. 309.

This species is based upon a single female specimen in the Leiden Museum, from New Guinea. Upper parts greyish fuscous, underparts white; middle of neck pale fuscous; remiges externally edged with white; bill and feet fuscous (*Salvadori*). Culmen 0·68 inch, wing 2·6, tail 1·45, tarsus 0·56.

*Hab.* New Guinea.

### 2. ENTOMOPHILA.

Type.

<i>Certhionyx</i> , Lesson, <i>Traité d'Orn.</i> i. p. 306 (1831) (diagnosis incorrect) .....	<i>E. leucomelas</i> .
<i>Entomophila</i> , Gould, <i>P. Z. S.</i> 1837, p. 354 .....	<i>E. albigularis</i> .
<i>Melicophila</i> , Gould, <i>B. Austr.</i> iv. pl. 49 (1848) .....	<i>E. leucomelas</i> .
<i>Lithotentha</i> , <i>Cub. Mus. Hein.</i> i. p. 116 (1851).....	<i>E. leucomelas</i> .
<i>Conopophila</i> , <i>Reichenb. Handb. spec. Orn.</i> i. p. 119 (1852) .....	<i>E. albigularis</i> .

Bill shorter than, or equal to, the rest of the head, broad at base. Nostrils not beset with feathers; operculated. First primary varying in length. Tip of wing formed by third and fourth primaries; secondaries short (two thirds the length of wing) in *E. leucomelas* and *E. picta*, long (five sixths of wing) in the rest. Tail square, shorter than wing. Tarsus anteriorly scutellated. Wings, except in *E. leucomelas*, edged with wax-yellow. Length of wing from 2·5 to 3·5 inches.

*Range.* Four species in Australia.

### *Key to the Species.*

- a. Wings edged with wax-yellow; bill shorter than head.
    - a'. First primary extremely short; secondaries about two thirds of whole wing in length. (Subgenus ENTOMOPHILA.)..... *picta*, p. 219.
    - b'. First primary about one third the length of the second primary; secondaries five sixths of whole wing. (Subgenus CONOPHILA.)
      - a". Throat reddish .....
      - b". Throat white .....
  - b. Only colours of plumage black and white; bill equal to rest of head in length; first primary not so short as in the foregoing. (Subgenus CERTHIONYX.) .....
- leucomelas*, p. 220.

1. *Entomophila picta*.

*Entomophila picta*, *Gould*, *P. Z. S.* 1838, p. 154; *id. B. Austr.* iv. pl. 50; *Gray*, *Gen. B.* i. p. 118, pl. 38. fig. 4; *Bp. C. A.* i. p. 394; *Reichenb. Syst. Av.* pl. 35; *id. Handb. Meropinae*, pl. 489. figs. 3451-52; *Gould*, *Handb. B. Austr.* i. p. 530; *Gray*, *Hand-l. B. i.* p. 154, no. 1997; *Ramsay*, *Proc. Linn. Soc. N. S. W.* ii. p. 189.

*Adult*. Cheeks, ear-coverts, and all the upper parts of the body uniform brownish black; most of the primaries and secondaries rather broadly edged with bright yellow, like most of the tail-feathers; the terminal third or half of the inner webs of most of the tail-feathers white, the rest being brownish black; a small spot on the chin blackish; all the rest of the underparts, including most of the under wing-coverts and the basal half of the inner webs of the quills, pure white; flanks with a few longitudinal central streaks of blackish brown; bill deep pink-red; iris and eyelash hazel; feet purplish lead-colour. Culmen 0.63 inch, wing 3.5, tail 2.2, tarsus 0.7.

*Female* much less brilliant than the male, but having the same pattern of coloration.

*Hab.* New South Wales and Richmond-River district.

a, b. Ad. sk.                      New South Wales.                      J. Gould, Esq. [C.].

2. *Entomophila rufigularis*.

*Entomophila rufigularis*, *Gould*, *P. Z. S.* 1842, p. 137; *id. B. Austr.* iv. pl. 52; *Bp. C. A.* i. p. 394; *Gray*, *Hand-l. B. i.* p. 154, no. 1999; *Ramsay*, *Proc. Linn. Soc. N. S. W.* i. p. 383, ii. pp. 111, 190.

*Conopophila rufigularis*, *Reichenb. Handb. spec. Orn.* p. 120 (1852); *id. Handb. Meropinae*, pl. 489. figs. 3448-49; *Gould*, *Handb. B. Austr.* i. p. 533.

Head brown like the back; throat rusty red; sides of head and rest of under surface pale brownish; bill and feet dark purplish brown; in the other parts resembling *E. albigularis*. Culmen 0.5 inch, wing 2.6, tail 2.15, tarsus 0.6.

*Hab.* North Australia, from Port Darwin to Cape York.

3. *Entomophila albigularis*.

*Entomophila* ? *albigularis*, *Gould*, *P. Z. S.* 1842, p. 137.

*Entomophila albigularis*, *Gould*, *B. Austr.* iv. pl. 51.

*Conopophila albigularis*, *Reichenb. Handb. spec. Orn.* i. p. 119 (1852); *id. Handb. Meropinae*, pl. 489. fig. 3450; *Gould*, *Handb. B. Austr.* i. p. 532; *Ramsay*, *Proc. Linn. Soc. N. S. W.* iv. p. 100.

*Entomophila albogularis*, *Bp. C. A.* i. p. 394; *Gray*, *Hand-l. B. i.* p. 154, no. 1998 (1869); *Ramsay*, *Proc. Linn. Soc. N. S. W.* ii. p. 190.

*Adult male*. Crown and sides of head ashy grey; rest of upper parts brown; remiges and tail-feathers with conspicuous yellow edges; chin and throat, abdomen and under tail-coverts white; chest and part of the fore neck rufous-brown, forming a con-

spicuous collar on the chest; flanks, under wing-coverts, and inner margin of quills whitish, more or less washed with pale brown; "bill blackish grey; feet bluish grey; iris bright reddish brown" (Gould). Culmen 0·5 inch, wing 2·5, tail 1·7, tarsus 0·7.

The *female* resembles the male, but is slightly smaller.

*Young birds* have the head more or less brown like the back, and the brown crescent on the chest is merely indicated by pale brownish.

*Hab.* New Guinea, Aru Islands, and Northern Australia.

a. ♂ juv. sk.	N.W. Australia.	J. R. Eelsey, Esq. [P.].
b. Ad sk.	Port Essington.	Gould Collection.
c. [♀] ad. st.	Port Essington.	Captain W. Chambers [P.].
d. ♂ ad. sk.	Port Essington.	Dr. Sibbald.
e, f. Ad. sk.	Cape York.	F. D. Godman and O. Salvin, Esqrs. [P.].

#### 4. *Entomophila leucomelas*.

*Certhia leucomelas*, *Cuv., teste Bonap. et Gray.*

*Entomophila picata*, *Gray, Gen. B. i. p. 118 (1846).*

*Certhionyx variegatus*, *Lesson, Traité d'Orn. i. p. 306 (1831).*

*Lichnotentha picata*, *Cub. Mus. Hein. i. p. 116 (1850); Gould, Handb. B. Austr. i. p. 529.*

*Melicophila picata*, *Gould, B. Austr. iv. pl. 49; Bp. C. A. i. p. 394; Diggles, Orn. Austr. pl.*

*Certhionyx leucomelas*, *Bp. C. R. xxxviii. p. 263 (1854); Ramsay, Proc. Linn. Soc. N. S. W. ii. p. 190.*

*Entomophila leucomelas*, *Gray, Hand-l. B. i. p. 154, no. 2001.*

*Adult male.* Only colours black and white; head all round, upper throat, sides of neck and hind neck, mantle, and centre of back black; primaries and their coverts entirely brownish black on both webs; median and lesser wing-coverts and a great part of the outer and inner webs of the secondaries pure white, producing a very conspicuous white band on the wing when folded; centre pair of tail-feathers and terminal quarter of the others pure white like the upper tail-coverts, rump, and the underparts of the body; under wing-coverts, axillaries, and inner margin of most of the quills dull black; "iris reddish brown; bill bluish grey; naked skin and a small fleshy appendage beneath the eye ash-grey; legs and feet greenish grey" (Gould).

*Female.* Light brown above, each feather darker in the centre; tail and wings uniform pale brown, only a few of the secondaries and of the greater wing-coverts being broadly edged with white; under surface of wings, fore neck, and throat buffy; rest of the underparts white; feathers of the chest, breast, and flanks with a brown subterminal spot.

*Immature male.* Intermediate between the adult male and female in coloration; but having the greater part of the wing-coverts and upper tail-coverts and the inner web of the tail-feathers pure white, like all the underparts of the body; throat and fore neck also white; only a few feathers showing the brown subterminal spots.

Ad. ♂. Culmen 0·7–0·8 inch, wing 3·4, tail 2·5, tarsus 0·78.

Ad. ♀. „ 0·75, „ „ 3·25, „ 2·5, „ 0·76.

*Hab.* Southern and Western Australia.

- a. ♂ ad.; b. Juv. sk. South Australia. F. D. Godman and O. Salvin, Esqrs. [P.]  
 c. ♂ imm. sk. South Australia. Sir T. Mitchell [P.]  
 d. [♂] ad. sk. South Australia. Gould Collection.

### 3. MELIPHAGA.

	Type.
Meliphaga, <i>Lewin, Birds of New Holland</i> (1808) . . . . .	M. phrygia.
Meliphaga, <i>Lesson, Traité d'Orn.</i> i. p. 301 (1831) . . . . .	M. phrygia.
Zanthoniza, <i>Swainson, Classif. Birds</i> , ii. p. 326 (1837) . . . . .	M. phrygia.
Zanthyomyza, <i>Gould, B. Austr.</i> iv. pl. 48. . . . .	M. phrygia.
Xanthyomyza, <i>Reichenb. Handb. spec. Orn.</i> fig. 3467 (1852)	M. phrygia.

Bill equal to the rest of the head in length, broad at base, curved; culmen with a prominent ridge. Tail much rounded, five sixths the length of the wing. Pattern of colour very bright yellow and black, much spotted and barred; inner webs of remiges grey, without paler or fulvous edges. All the rest as in *Ptilotis*. Length of wing 4·2–4·5 inches.

*Range.* Australia.

#### 1. Meliphaga phrygia.

- Merops phrygius, *Lath. Ind. Orn., Suppl.* p. xxxiv; *Shaw, Zool. New Holl.* p. 13, pl. 4 (1794).  
 Black and Yellow Bee-eater, *Lath. Gen. Syn. Suppl.* ii. p. 154; *id. Gen. Hist.* iv. p. 165.  
 Le Merle écaillé, *Levaill. Ois. d'Afr.* iii. pl. 116.  
 Meliphaga phrygia, *Lewin, B. New Holland*, pl. 14 (1808); *Cab. Mus. Hein.* i. p. 119; *Bp. C. A.* i. p. 391; *Gould, Handb. B. Austr.* i. p. 527; *Gray, Hand-l. B.* i. p. 156, no. 2016; *Ramsay, Pr. Linn. Soc. N. S. W.* ii. p. 189.  
 ? Turdus squamatus, *Vieill. Nouv. Dict. (teste auctt.)*.  
 Philemon phrygius, *Bonn. et Vieill. Encycl. Méth.* ii. p. 617; *id. Nouv. Dict.* xxvii. p. 428.  
 Anthoæra phrygia, *Fig. & Horsf. Linn. Trans.* 1826, p. 322.  
 Zanthoniza phrygia, *Swains. Class. B.* ii. p. 326 (1837).  
 Zanthyomyza phrygia, *Gould, B. Austr.* iv. pl. 48.  
 Xanthyomyza phrygia, *Reichenb. Handb. spec. Ornith.* figs. 3467–69; *Diggles, Orn. Austr.* pl. & text.

*Adult.* Head and neck black, with the exception of the ocular region and the cheeks, which are bare and covered with wart-like excrescences; mantle, back, and wing-coverts black, each feather broadly edged with whitish yellow; wings and tail black, with large edges, tips, or subterminal patches of pale yellow; the three or four outer pairs of tail-feathers entirely yellow at their terminal half; feathers of breast and flanks black, with a very distinct sub-terminal arrow-shaped bar of yellowish white; abdomen and under tail-coverts more uniform whitish yellow; axillaries and under

wing-coverts black, edged with yellowish white; inner web of quills black, without paler margins; "bill black; feet blackish brown; iris reddish brown; warty excrescences covering the face dirty yellowish white" (*Gould*). Culmen 0·84 inch, wing 4·2-4·5, tail 3·8-4·2, tarsus 0·85.

The *female* resembles the male in coloration, but is smaller. Wing 4·15 inches.

*Obs.* A few feathers on the sides of the upper chest are longer than the others and fluffy, coloured yellow—a curious indication of the relationship of this species.

*Hab.* From Rockingham Bay to New South Wales.

a. Ad. st.	New South Wales.	J. Gould, Esq. [C.].
b. ♂ ad. sk.	South Australia.	Sir George Grey [P.].
c. Ad. sk.	New South Wales.	Gould Collection.
d, e. Ad. sk.	New South Wales.	F. D. Godman and O. Salvin, Esqrs. [P.].
f. ♂ ad. st.	New South Wales.	Major-Gen. Hardwicke.
g. ♂ ad. st.	Maitland, Australia.	J. Gould, Esq. [C.].
h. Ad. sk.	Australia.	Sir D. Cooper [P.].

#### 4. PTILOTIS\*.

Type.

<i>Myzantha</i> , <i>Lesson (nec Vig. &amp; Horsf.)</i> , <i>Traité d'Orn.</i> i. p. 302 (1831) .....	<i>P. chrysolis</i> .
<i>Ptilotis</i> , <i>Swainson</i> , <i>Classif. of Birds</i> , ii. p. 326 (1837) . . . . .	<i>P. lewinii</i> .
<i>Lichenostomus</i> , <i>Cab. Mus. Hein.</i> i. p. 119 (1851) . . . . .	<i>P. cratitia</i> .
<i>Stomioptera</i> , <i>Reichenb. Handb. spec. Orn.</i> i. p. 109 (1851) . . . . .	<i>P. unicolor</i> .
<i>Foulehaio</i> , <i>Reichenb. op. cit.</i> p. 110 .....	<i>P. carunculata</i> .
<i>Xanthotis</i> , <i>Reichenb. op. cit.</i> p. 139 .....	<i>P. chrysolis</i> .

Bill equal to, or slightly longer than, the rest of the head; culmen ridged, slightly curved. Tip of wing formed by primaries 3, 4, 5, and 6. Secondaries varying between four fifths and five sixths of the length of the wing. Tail square or slightly rounded, generally a little shorter than the wing (in *P. auricomis* slightly longer). Pattern of colour very plain, mostly olive above, dingy yellowish below; inner web of remiges invariably broadly margined with fulvous or yellowish. Skin on sides of head frequently bare of feathers and transformed into wattles. Parotic feathers often stiff, and most frequently coloured yellow or white. No other colours

\* The following species I do not know where to place in this genus:—

#### PTILOTIS IXOIDES.

*Ptilotis?* *ixoides*, *Salvad. Ann. Mus. Civ. Gen.* xii. p. 338 (1878), xvi. p. 77.  
*Ptilotis ixoides*, *Salvad. Orn. Papuasias etc.* ii. p. 339.

"Upper parts reddish brown, tinged with olive; feathers of the crown edged with olive-grey, fuscous towards the centre; feathers of the back fuscous, edged with olive; feathers of the lower back very fluffy, dark olive; wings and tail brown, narrowly edged with olive; inner margin of remiges and under wing-coverts rufous; underparts of the body olive-grey, with faint fuscous bars; bill brown; feet lead-colour. Culmen 0·62 inch, wing 3·25, tail 2·65, tarsus 0·92. (*Salvadori*.)

*Hab.* New Guinea.



- f.* Feathers on upper and hinder margin of ear golden yellow; ears bare, with a short wattle; mantle spotted; breast striated .. *flavistriata*, p. 232.
- i.* Yellow colour confined to postauricular feathers; ocular and auricular region not bare.
- g.* Underparts striated ..... *reticulata*, p. 233.
- h.* Underparts not striated; with a postauricular yellow patch.
- a.* Cheeks with bare, short wattles; ear-coverts dull olive ..... *earunculata*, p. 225.
- b.* Cheeks without wattles, not bare.
- a.* Upper parts olive.
- a.* Ear-coverts dusky olive-grey; underparts dull yellowish grey ..... { *analoga*, p. 227.  
*albinotata*, p. 229.  
*flavivinctus*, p. 228.  
*fusca*, p. 229.  
*lewini*, p. 229.
- a.* Ear-coverts silky leaden grey; underparts ashy olive ..... { *fligera*, p. 237.  
*meyeri*, p. 239.  
*chrysotis*, p. 238.  
*fusciventris*, p. 239.
- b.* Upper parts brown; ear-coverts brownish; a golden-yellow postauricular stripe; underparts fulvous brown .. { *fligera*, p. 237.  
*meyeri*, p. 239.  
*chrysotis*, p. 238.  
*fusciventris*, p. 239.
- k.* Yellow colour confined to a few small feathers just behind the eye; ear-coverts grey or brownish. Upper parts dull olive-brown .. *limbata*, p. 236.
- l.* Postauricular feathers forming decidedly elongated tufts.
- i.* Tufts pure white; ear-coverts dull yellow; upper parts dull earthy brown ..... *penicillata*, p. 244.
- k.* Tufts yellow.
- c.* Feathers of fore neck hairy or lanceolate, white; underparts dull white; crown dark brown; median wing-coverts tipped with white ..... *cockerelli*, p. 241.
- d.* Feathers of throat not lanceolate.
- c.* Ear-coverts and ocular region black; crown and underparts yellow.
- c.* Mantle olive-grey ..... *auricomis*, p. 242.
- d.* Mantle blackish brown ..... *cassidix*, p. 243.
- d.* Ear-coverts not black; crown not yellow.
- e.* Underparts dull whitish, with broad brownish shaft-streaks; mantle pale brownish grey; ear-coverts brownish ..... *ornata*, p. 244.
- f.* Underparts without shaft-streaks.
- a.* Ear-coverts yellowish brown, with a narrow, black, transverse stripe bordering the yellow; mantle pale olive-grey.
- a.* Underparts dingy yellowish white ..... *plumula*, p. 245.
- b.* Underparts yellow ..... { *flavescens*, p. 245.  
*germana*, p. 246.
- b.* No black stripe bordering the ear-coverts.
- c.* Crown grey; underparts dull yellowish white ..... *cratitia*, p. 243.
- d.* Crown, upper and under parts dull olive; ear-coverts dull olive ..... *auriculata*, p. 228.



- m.* Auricular region without any yellow or white patches; plumage uniformly dull-coloured.
- l.* Inner web of remiges edged with fulvous; without any wattle at gape.
- e''.* Underparts and crown grey, mottled . . . . } *marmorata*, p. 247.
- f''.* Underparts not mottled. } *cinerea*, p. 247.
- e'''.* Length of bill about 0·8 inch; upper parts dull green . . . . . *virescens*, p. 248.
- f'''.* Length of bill about 1·5 inch; upper parts olive-brown . . . . . *megalorhynchus*,
- m'.* Inner web of quills whitish; small wattle at gape; plumage uniform dull brownish grey } [p. 248, *unicolor*, p. 249.
- n'.* Inner web of remiges edged with white; no wattles; sides of breast and flanks rufous. *erythropleura*, p. 249.

### 1. *Ptilotis carunculata*.

Wattled Creeper, *Lath. Gen. Syn.* i. p. 732 (1781); *id. op. cit. Suppl.* i. p. 129; *Cook's Last Voy.* i. p. 334 (1784); *Forster, Cook's dritte Entd. Reise*, i. p. 238 (1787).

*Certhia carunculata*, *Gm. S. N.* i. p. 472 (1788); *Lath. Ind. Orn.* p. 295; *Bechst. Lath. Uebersicht*, i. p. 598 (1793), iv. p. 186; *Forster, Descr. Anim.* p. 165 (1844).

Le Foulehaio, *Aud. et Vieill. Ois. Dor.* ii. p. 131, pl. 69 (♂), pl. 70 (♀).

*Creadion musicus*, *Vieill. Nouv. Dict. Sc. Nat.* xxxix. p. 480.

*Creadion tabuensis*, *Steph. (fide Gray)*.

*Foulehaio musicus*, *Reichenb. Handb. Meropine*, i. p. 110, pl. 497. fig. 3550.

*Meliphaga carunculata*, *Gray, Gen. B.* i. p. 122; *Peale, U. S. Expl. Exp.* p. 144, pl. 42. fig. 2 (1844); *Hartl. Wiegmann. Arch. f. Naturg.* 1852, p. 108; *Gray, B. Trop. Isl.* p. 12; *id. Hand-l. B.* i. p. 157, no. 2051.

*Ptilotis carunculata*, *Cass. U. S. Expl. Exp.* p. 173 (1858); *Finsch & Hartl. Faun. Centralpolyn.* p. 58, pl. 5. fig. 2; *Layard, P. Z. S.* 1875, p. 432; *Finsch, P. Z. S.* 1877, p. 732; *id. Voy. H.M.S. 'Challenger,' Zool.* ii. p. 45.

*Myzantho carunculata*, *Hartl. J. f. O.* 1854, p. 168.

*Ptilotis analoga*, *Godefr. Cat.* i. & ii. (*fide Finsch & Hartl.*).

*Ptilotis procerior*, *Finsch & Hartl. Faun. Centralpolyn.* p. 62, pl. 5. fig. 3 (1867); *Gray, Hand-l. B.* i. p. 157, no. 2052; *Layard, P. Z. S.* 1875, p. 431; *Finsch, P. Z. S.* 1877, p. 732; *id. Voy. H.M.S. 'Challenger,' Zool.* ii. p. 46, pl. 12. fig. 2.

*Ptilotis flavo-aurita*, *Layard, Ibis*, 1876, p. 147.

*Adult.* All the upper parts of the body olive-green, with darker brownish centres to the feathers; wings and tail dark brown, externally edged with olive-yellow; inner margin of quills inclining to silky white; edge of wing yellowish; all the underparts of the body dingy olive-grey, more or less tinged with yellow; the chest and fore neck showing slight mottlings, these produced by the feathers being slightly darker towards the tip. The skin of the cheeks is transformed into a large wattle, which in young birds is almost entirely covered with short dull blackish feathers, whilst in immature birds only the anterior and upper half is covered with

feathers; in adult birds the feathers are restricted to the sides of the mandible, just below the gape and the lores. Lores, feathers bordering the upper margin of the wattle, and feathers behind the ear-coverts bright yellow; ear-coverts olive-grey; bill and feet dark brown; iris whitish.

*Immature birds* have the cheeks dull black, and no yellow colour on the sides of the head or behind the ear-coverts, these parts being olive-grey; the fore neck, chest, mantle, hind neck, and crown present a considerably mottled appearance; iris dark buff or brown.

This species varies considerably in its dimensions, as will be seen from the measurements given in the following table.

*P. procerior* is undoubtedly nothing but the immature or young bird of *P. carunculata*; the figure of *P. procerior*, as given in Finsch and Hartlaub, Faun. Centralpolyn. pl. 5. fig. 3, is misrepresented; moreover, the diagnosis given by Finsch in the Report of the Voyage of H.M.S. 'Challenger,' p. 46, is totally different from the description originally given by him.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂ adult (Samoa).....	0·95	3·7	2·9	1·01
♂ " " (Upolu) ..	0·9	3·7	3·0	1·1
♂ immat. (Levuka).....	1·0	2·6	3·1	1·06
♀ ad. (Tutuila) .....	1·0	3·95	3·2	1·2
♂ immat. (Ovalau).....	1·02	3·95	3·4	1·15
♀ adult (Tongatabu) .....	1·03	4·2	3·7	1·25
♂ " " .....	1·0	4·4	3·65	1·19
♂ immat. (Levuka) .....	1·0	3·75	3·3	1·1
♀ " " (Ovalau).....	..	3·65	2·9	1·0
♀ adult (Matuka) .....	0·81	3·4	2·9	1·05
♀ immat. (Ovalau).....	0·81	3·5	..	1·1
♀ " (Bua, Fiji) .....	0·83	3·25	2·7	1·0

*Hab.* Samoa, Friendly, and Fiji Islands.

<i>a, b.</i> Ad. sk.	Upolu, Samoa Islands.	Rev. S. J. Whitmee [C.].
<i>c.</i> Ad. sk.	Upolu, July 1865.	J. Brenchley, Esq. [P.].
<i>d.</i> [♂] ad. sk.	Samoa Islands.	J. Gould, Esq.
<i>e.</i> ♂ ad. sk.	Tutuila, July 1865.	J. Brenchley Esq. [P.].
<i>f, g.</i> ♂ ♀ ad. st.	Tongatabu.	Sir E. Home [P.].
<i>h.</i> ♀ ad. sk.	Tongatabu, Nov. 1880 ( <i>Dr. Coppinger</i> ).	Voy. H.M.S. 'Alert.'
<i>i, k.</i> ♀; <i>l, m.</i> ♂ ♀ ad. sk.	Tongatabu.	Voy. H.M.S. 'Challenger.'
<i>n.</i> ♂ ad. sk.	Ovalau, Fiji, July 1865.	J. Brenchley, Esq. [P.].
<i>o.</i> ♂ imm.; <i>p.</i> ♀ ad. sk.	Ovalau, July 1874.	E. L. Layard, Esq. [C.].
<i>q.</i> ♀ ad. sk.	Ovalau, June 1875.	E. L. Layard, Esq. [C.].
<i>r.</i> ♂ ad. sk.	Ovalau, Sept. 1875.	E. L. Layard, Esq. [C.].
<i>s.</i> ♀ ad. sk.	Bua, Fiji.	E. L. Layard, Esq. [C.].
<i>t.</i> ♀ ad. sk.	Taviuni, April 1875.	E. L. Layard, Esq. [C.].
<i>u.</i> ♀ ad. sk.	Taviuni, July 1875.	E. L. Layard, Esq. [C.].
<i>v.</i> Ad. sk.	Taviuni, Nov. ( <i>Liardet</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>w, x.</i> ♂ ♀ ad. sk.	Levuka.	Voy. H.M.S. 'Challenger.'

<i>y, z.</i> ♂ ♀ ad. sk.	Matuka.	Voy. H.M.S. 'Challenger'
<i>a', b'.</i> ♂ ♀ ad. sk.	Matuka(Dr. Rayner).	Voy. H.M.S. 'Herald.'

2. *Ptilotis analoga*.

- *Ptilotis analoga*, *Hombr. et Jacq. Voy. Pôle Sud*, iii. *Zool.* pl. 17. fig. 2.
- Ptilotis analoga*, *Reichenb. Handb. Meropinae*, p. 103, fig. 3332 (1852); *Hartl. J. f. O.* 1854, p. 164; *Salvad. e d'Albert. Ann. Mus. Civ. Gen.* vii. p. 825; *Sharpe, Proc. Linn. Soc.* xiii. 1877, p. 497; *Ramsay, Proc. Linn. Soc. N. S. W.* iii. pp. 111, 286, iv. p. 100; *Salvad. Orn. Papuasia etc.* ii. p. 327.
- Ptilotis similis*, *Jacq. et Pucher. Voy. Pôle Sud*, iii. *Zool.* p. 80 (1853); *Hartl. J. f. O.* 1854, p. 164; *Scl. Pr. Linn. Soc.* ii. p. 157 (1858); *Gray, P. Z. S.* 1858, p. 174; 1859, p. 155; 1861, p. 434; *id. Cat. B. New Guin.* p. 24; *Rosenberg, Nat. Tijdschr. Ned. Ind.* xxv. p. 326; *id. J. f. O.* 1864, p. 122; *Finsch, Neu-Guin.* p. 164; *Gould, P. Z. S.* 1866, p. 217; *Gray, Hand-l. B.* i. p. 156, no. 2032.
- Ptilotis auriculata*, *S. Müll. in Mus. Lugd. (teste Salvad.)*; *Scl. Pr. Linn. Soc.* ii. p. 157 (1858), sine descript.; *Gray, P. Z. S.* 1858, p. 191; *id. Cat. B. New Guin.* p. 24; *id. P. Z. S.* 1861, p. 434; *Rosenberg, Nat. Tijdschr. Ned. Ind.* xxv. p. 326; *id. J. f. O.* 1864, p. 122; *Finsch, Neu-Guin.* p. 165; *Gray, Hand-l. B.* i. p. 157, no. 2044; *Scl. P. Z. S.* 1873, p. 157; *Meyer, Sitzb. Ak. Wiss. Wien*, lxx. p. 207; *Rosenb. Malay. Arch.* p. 553.
- Ptilotis similis*, var., *Gray, P. Z. S.* 1861, p. 428; *id. Hand-l. B.* i. p. 156, no. 2032.
- Ptilotis gracilis*, *Gould, P. Z. S.* 1866, p. 227; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. pp. 189, 207.
- Ptilotis notata*, *Gould, Ann. & Mag. N. H.* xx. p. 269 (1867); *id. B. Austr. Suppl.* pl. 41; *Masters, Pr. Linn. Soc. N. S. W.* i. p. 55; *Ramsay, op. cit.* ii. pp. 189, 207; *Salvad. e d'Albert. Ann. Mus. Civ. Gen.* xiv. p. 80.
- Meliphaga auriculata*, *S. Müll. in Mus. Lugd.*; *Scl. P. Z. S.* 1873, p. 694, note.
- Meliphaga similis*, *Giebel, Thes. Orn.* ii. p. 557 (1875); *Rosenb. Malay. Archip.* pp. 364, 395, 553 (1879).
- Ptilotis flavirictus*, *Salvad. Ann. Mus. Civ. Gen.* xvi. p. 76 (1880); *id. Orn. Papuasia etc.* ii. p. 332.

*Adult.* All the upper parts, including the outer webs of the wings and tail, uniform olive; a small spot beneath the ear, ear-coverts, and feathers behind the ear pale yellow; underparts of the body pale olive-grey; centre of abdomen, edge of wing, under wing-coverts, and inner margin of quills yellowish; the feathers of the lower back and rump very fluffy, those nearer to the flanks with concealed terminal spots of whitish; bill and iris black; feet lead-colour; skin of the gape swollen, and forming something like a small yellow wattle.

*Obs.* The bill of this species is subject to much variation in size, independently of geographical distribution: the specimen in the National Collection with the longest culmen (0.92 inch) is a male from the Aru Islands; another, with culmen 0.85 inch, is from Cape York; and a third, with culmen 0.86 inch, is from East Cape, New

Guinea. The shortest and broadest bill, 0·7 inch, is seen in a male specimen from Dorey.

We may distinguish three races of this species as follows:—

A. *North-western Race* (*P. auriculata*).—The yellow feathers on the hinder margin of the ear-opening are very well developed, forming a tuft of about 0·4 inch in length. The females are smaller than the males, and have the ear-tufts less developed. Culmen 0·75 inch, wing 3·3–3·6, tail 2·8–3·2, tarsus 0·75–0·8.

*Hab.* Mysol, Dorey, and Waigiou.

B. *Southern Race*.—The yellow feathers on the hinder margin of the ear are very short, about 0·2 inch in length, and form an oval patch together with the ear-coverts: wing 3·1–3·5 inches, tail 2·5–2·8.

*Hab.* Aru Islands, Cape York, and New Guinea.

C. *South-eastern Race* (*P. flavirictus*).—Like the Southern race, but considerably smaller: “bill brown; feet yellowish brown; iris chestnut” (*Salvadori*).

♂. East Cape. Culmen 0·85 inch, wing 3·25, tail 2·55, tarsus 0·86.

♀ (?). Astrolabe Mountains. Culmen 0·7–0·8 inch, wing 2·8–2·9, tail 2·4, tarsus 0·81.

*Hab.* South-eastern New Guinea.

#### a. *Southern Race.*

<i>a, b.</i> ♂; <i>c.</i> ♀ ad. sk.	Aru Islands,	A. R. Wallace, Esq. [C.].
<i>d.</i> ♀ ad. sk.	Aru Islands ( <i>Wallace</i> ).	Gould Collection.
<i>e, f.</i> ♂ ♀ ad. sk.	Brown's River, N. Austr., June 7, 1848 ( <i>J. Macgillivray</i> ).	Gould Collection.
<i>g, h.</i> ♂; <i>i.</i> ♀ ad. sk.	Cape York.	Voy. H.M.S. 'Challenger.'
<i>k, l.</i> ♂ ♀ ad. sk.	Cape York.	Gould Collection. (Types of <i>P. gracilis</i> .)
<i>m, n, o.</i> Ad. sk.	Cape York.	Gould Collection. (Types of <i>P. notata</i> .)

#### β. *North-western Race* (*P. auriculata*).

<i>a.</i> ♂ ad. sk.	Dorey ( <i>Wallace</i> ).	Gould Collection.
<i>b, c.</i> ♂ ♀ ad. sk.	Dorey.	A. R. Wallace, Esq. [C.].
<i>d.</i> ♂ ad. sk.	Waigiou.	A. R. Wallace, Esq. [C.].
<i>e, f.</i> [♂] <i>g, h.</i> [♀] ad. sk.	Mysol.	A. R. Wallace, Esq. [C.].
<i>i.</i> ♂ ad. sk.	Mysol ( <i>Wallace</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].

#### γ. *South-eastern Race* (*P. flavirictus*).

<i>a, b.</i> ♂ ♀ ad. sk.	East Cape.	Mr. C. Hanstein [C.].
<i>c, d.</i> Ad. sk.	Astrolabe Mountains.	Mr. A. Goldie [C.].
<i>e.</i> Ad. sk.	Port Moresby.	O. C. Stone, Esq. [P.].

3. *Ptilotis albinotata*.

*Ptilotis albinotata*, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 33 (1876),  
xvi. p. 76; *id. Orn. Papuasia etc.* ii. p. 333.

*Ptilotis montana*, *Salvad. Ann. Mus. Civ. Gen.* xvi. p. 77 (1880);  
*id. Orn. Papuasia etc.* ii. p. 333.

“Like *P. analoga*, but with the ear-coverts, the feathers behind the ear, and the small subocular spot white instead of yellow; bill black; feet ashy; iris pale ashy. Culmen 0·62 inch, wing 3·25, tail 2·8, tarsus 0·87.” (*Salvadori*.)

*Hab.* New Guinea.

4. *Ptilotis fusca*.

*Meliphaga fusca*, *Gould, Synops. B. Austr.* pt. ii.; *Gray, Gen. B.* i. p. 121; *id. Hand-l. B.* i. p. 156, no. 2023.

*Ptilotis fusca*, *Gould, op. cit.* pt. iv.; *id. B. Austr.* iv. pl. 44; *id. Handb. B. Austr.* i. p. 520; *Bp. C. A.* i. p. 392; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 189.

*Adult.* All the upper parts, including the crown and the sides of the head, pale brown, with a slight olive-grey tinge; wings and tail light brown, the outer webs strongly washed with olive-yellow; under wing-coverts and inner margin of quills pale fulvous; ear-coverts like the crown, slightly tipped with dark brown; behind the ear-coverts a very small patch of pale yellow; under surface of body very pale greyish brown, changing into dull brownish white on the abdomen and under tail-coverts; “iris light yellow; gape and corners of the mouth yellow; bill dull yellow at the base and black at the tip; feet fleshy brown” (*Gould*). Culmen 0·64 inch, wing 3·3, tail 2·8, tarsus 0·75.

*Hab.* From Rockingham Bay to New South Wales and Victoria.

a. ♀ ad. sk.	Moreton Bay.	Gould Collection.
b. Ad. sk.	New South Wales.	Gould Collection.
c. Ad. sk.	New South Wales.	Gould Collection.

5. *Ptilotis lewini*.

*Meliphaga chrysotis*, *Lewin (nee Lath.), B. N. S. W.* pl. 5 (1838).

*Certhia xanthotis*, *Shaw, Gen. Zool.* viii. p. 244 (1812).

*Ptilotis lewini*, *Swains. Classif. B.* ii. p. 326; *Gould, Handb. B. Austr.* i. p. 503; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 189.

*Ptilotis chrysotis*, *Gould, B. Austr.* iv. pl. 32; *Bp. C. A.* i. p. 392 (partim).

*Meliphaga lewini*, *Gray, Gen. B.* i. p. 122; *id. Hand-l. B.* i. p. 156, no. 2017.

*Adult.* All the upper parts uniform dull olive-green, slightly brighter on the wings and tail; a spot below the eye and a large oval spot behind the ear pale yellow; præocular region, part of the cheeks, and ear-coverts blackish silky grey; underparts of the body dull olive-grey, mottled with whitish and yellowish on the abdomen;

most of the feathers of the breast and fore neck faintly darker at the tips and towards the shafts, giving these parts a slightly mottled appearance; edge of wing, under wing-coverts, and inner margin of quills fulvous yellow; "bill black at the tip, yellow at the base; legs purplish flesh-colour; iris dark lead-colour; gape white" (*Gould*). Culmen 0·8 inch, wing 3·6, tail 3·4, tarsus 0·93.

The sexes are alike in plumage, but the female is slightly smaller.

*Hab.* From Victoria and New South Wales as far north as Rockingham Bay.

a. Ad. sk.	Australia.	Gould Collection.
b. Ad. sk.	Australia.	Purchased.
c. ♂ ad. st.	New South Wales.	J. Gould, Esq. [C.].
d. Pull. sk.	New South Wales.	J. Gould, Esq. [C.].
e, f. Ad. sk.	Port Molle, Queensland ( <i>Dr. Coppinger</i> ).	Voy. H.M.S. 'Alert.'
g, h. [♂] ad. sk.	Queensland ( <i>Cockerell</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].
i, k. ♂ ♀ ad. sk.	Dunk Island, Queensland ( <i>Macgillivray</i> ).	Gould Collection.
l. ♀ ad. sk.	Moreton Bay, July 24, 1851.	Gould Collection.
m. Skeleton.	New South Wales.	J. Macgillivray, Esq. [C.].
n. Skeleton.	New South Wales.	Fyton Collection.

## 6. *Ptilotis provocator*.

*Ptilotis provocator*, *Layard*, *P. Z. S.* 1875, p. 28; *ib.* *Ibis*, 1876, pp. 155, 392; *Finsch*, *P. Z. S.* 1877, p. 733; *id.* *Report Voy. H.M.S. 'Challenger'*, vol. ii. p. 47.

*Ptilotis xanthophrys*, *Finsch*, *Journ. Mus. Godeffr.* xii. p. 5 (1876).

*Adult.* The bare parts in this species restricted to a narrow ring round the eye; feathers of the sides of the neck and fore neck lanceolate; upper parts olive-brown; the feathers of the mantle with white shafts, those of the crown pale grey towards the centre; wings and tail brown, the former with pale edges; the sides of head and ear-coverts and a few feathers behind the ear dull white; cheeks blackish brown; lores whitish; underparts dingy brownish grey, the feathers with white shafts; abdomen and under tail-coverts more inclining to whitish; under wing-coverts and inner margin of remiges pale buff; edge of wing inclining to yellow; most of the feathers of the upper parts, throat, and breast faintly edged with olive; the sides of the neck washed with dull yellow; bill black; iris brown. Culmen 1·0–1·1 inch, wing 4·0–4·3, tail 3·0–3·3, tarsus 1·15–1·2.

*Immature birds* have the wing-coverts and quills narrowly edged with pale yellowish olive, whilst the upper and under parts of the body are more or less strongly washed with that colour.

*Female.* Wing 3·4–3·9 inches.

*Hab.* Kandavu, Fiji Islands.

<i>a, b, c.</i> ♂; <i>d, e.</i> ♀ ad. sk.	Kandavu.	Voy. H.M.S. 'Challenger.'
<i>f.</i> ♂ juv.	Kandavu.	Voy. H.M.S. 'Challenger.'
<i>g, h.</i> ♂ ♀ ad. sk.	Kandavu, Aug. 4.	E. L. Layard, Esq. [C.]. (Types of species.)

7. *Ptilotis frenata*.

*Ptilotis frenata*, Ramsay, *P. Z. S.* 1874, p. 603; Gould, *B. New Guin.* pt. 2.

*Adult.* Subocular region partly bare of feathers; postocular region covered with a few white feathers, which are tipped with blackish brown; ear-coverts and cheeks blackish brown; a few feathers on the sides of the occiput above the ear-coverts bright yellow, forming a small tuft; all the upper parts, including the wings and tail, olive-brown, darker on the crown and especially on the forehead; wings and tail externally slightly washed with olive; chin and sides of neck dull brown; throat freckled with brown and dull yellow; rest of the underparts of the body brownish grey, darkest on the breast, palest on the abdomen; under wing-coverts and inner margin of quills pale fulvous; bill dark brown, pale at basal half; small fleshy appendages on the gape yellow. Culmen 0.83 inch, wing 3.9, tail 3.4, tarsus 0.95.

*Hab.* N.E. Australia.

*a.* Ad. sk. Rockingham Bay (*Ramsay*). Gould Collection.

8. *Ptilotis subfrenata*.

*Ptilotis subfrenata*, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 498 (1875), xvi. p. 77; *id. Orn. Papuasias etc.* ii. p. 337.

*Adult.* Feathers of upper parts blackish brown, edged with olive; underparts dingy brownish grey, slightly tinged with olive; forehead grey; sides of occiput and neck black; a golden-yellow stripe extending from the præocular region, beneath the eye, and over the ear-coverts; on each side of the neck a white patch; throat brownish grey, bordered with yellow on each side; wings blackish brown, externally edged with olive-green, internally with rufous; under wing-coverts dull fulvous yellow; tail much rounded, rather graduate, blackish brown above, externally edged with olive-green; bill black; feet blackish brown. Culmen 0.85 inch, wing 3.7, tail 3.7, tarsus 0.95. (*Salvadori*.)

The female (or immature bird?) resembles the male, but is slightly smaller, and has the under tail-coverts rufescent.

*Hab.* Arfak Mountains, N.W. New Guinea.

9. *Ptilotis flavistriata*.

*Ptilotis flavostriata*, *Gould, P. Z. S.* 1875, p. 316; *id. B. New Guin.* pt. 2.

*Adult.* Sub- and post-ocular regions bare, probably yellow in the flesh; the skin on the hinder margin of the ear-opening drawn out into a small flap; the ear-opening itself unprotected, the feathers between it and the eye being very short and thin; the skin of the cheeks in the prolongation of the gape forming a little elevated ridge; feathers behind the ear and cheeks golden yellow; crown of head dark olive-brown, blackish brown towards the sides of the occiput; feathers of nape and hind neck blackish brown, tipped with greyish white; feathers of the mantle dark brown, with large ochraceous tips; feathers of the lower back long and fluffy, dark brown, inclining to brownish yellow towards the tip; wings and tail brown, externally edged with pale olive-yellow; wing-coverts brown, with whitish tips and pale edges; throat dull white; feathers of chest and breast with a lateral patch of dark brown on each web, those of the chest and upper breast with a bright yellow streak near the tip; feathers of the lower breast whitish, besides the two lateral brown patches; fore neck and chest washed with greenish, the breast, especially on the sides, with dull yellow; flanks, thighs, and under tail-coverts brownish white or creamy; abdomen brownish olive; edge of wing and part of under wing-coverts fulvous yellow; rest of under wing-coverts and inner margin of remiges fulvous; bill blackish brown. Culmen 1.05 inch, wing 3.6, tail 3, tarsus 1.05.

*Hab.* N.E. Australia.

a. Ad. sk.                      Rockingham Bay.                      Gould Collection. (Type of species.)

10. *Ptilotis maculata*.

*Meliphaga maculata*, *Temm. Pl. Col.* iv. pl. 29. fig. 1 (1824); *Müll. Verh. Nat. Gesch. Land- en Volkenk.* p. 162; *Gray, Gen. B.* i. p. 122; *id. Hand-l. B. i.* p. 157, no. 2036.

*Ptilotis maculata*, *Bp. C. A. i.* p. 392; *Wall. P. Z. S.* 1863, p. 486; *Finsch, Neu-Guin.* p. 164.

*Adult.* All the upper parts, including the tail, the outer webs of the remiges, and the wing-coverts uniform rich olive-yellow; inner web of remiges brown, edged with silky white; cheeks whitish, partly bare towards the eye; ear-coverts rich orange-yellow; chin and upper throat greyish; sides of neck and rest of underparts, including edge of wing, golden yellow, each feather with a triangular central patch of brown, giving the fore neck, chest, and breast a very spotted appearance. Culmen 0.7–0.77 inch, wing 2.4–2.8, tail 3.15–3.5, tarsus 0.7–0.75.

The sexes are exactly alike in plumage, differing only in size.

*Hab.* Timor.

a, b. ♂; c. ♀ ad. sk.      E. Timor.                      A. R. Wallace, Esq. [C.].  
d. Ad. sk.                      E. Timor (*Wallace*).      Gould Collection.  
e ♂ ad. st.                      Timor.                          E. Wilson, Esq. [P.].



11. *Ptilotis polygramma*. (Plate VI.)

*Ptilotis polygramma*, *Gray, P. Z. S.* 1861, p. 429; *Finsch, Neu-Guin.* p. 165; *Gray, Hand-l. B. i.* p. 156, no. 2035.

*Xanthotis poikilosternus*, *Meyer, Sitzb. Ak. Wiss. Wien*, lxx. p. 112 (1874); *Scat. Ibis*, 1874, p. 418.

*Meliphaga polygramma*, *Giebel, Thes. Orn.* ii. p. 559 (1875); *Rosenb. Malay. Archip.* p. 395.

*Ptilotis pœcilsternus*, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 948 (1875).

*Ptilotis*, sp., *d'Albertis, Ann. Mus. Civ. Gen.* x. p. 29 (1877).

*Xanthotis polygramma*, *Salvad. Ann. Mus. Civ. Gen.* xii. p. 338 (1878); *d'Albertis e Salvad. op. cit.* xiv. p. 80, xvi. p. 78; *Sharpe, Journ. Linn. Soc.* xvi. 1882, p. 441.

*Xanthotis?* *polygramma*, *Salvad. Orn. Papuasias etc.* ii. p. 343.

*Adult.* All the feathers of the upper parts blackish brown, broadly edged with rich olive-green and narrowly tipped with whitish, especially on the mantle, wing-coverts, and occiput; feathers of crown without any lighter tips; rump and lower back very fluffy and greyish olive; wings and tail brown, strongly washed with olive-yellow; ocular region bare; ear-coverts silky whitish grey; feathers behind the ear bright yellow; a small blackish patch on the lower and upper corners of the ear-coverts; cheeks and throat greyish white; rest of underparts of the body white and slightly washed with greenish yellow, each feather with a large subterminal triangular mark of blackish brown; the feathers of the chest with longitudinal streaks of that colour; axillaries and most of the under wing-coverts white; rest of under wing-coverts and inner margin of quills pale fulvous; "bill and iris black; feet ashy" (*Salvadori*). Culmen 0·8–0·9 inch, wing 3·0–3·15, tail 2·5, tarsus 0·85–0·9.

*Young birds* have the wing-coverts and some of the tail-feathers narrowly tipped with fulvous.

*Hab.* New Guinea, Salwati, Waigiou, and Mysol.

<i>a, b, c.</i> ♂ ad. sk.	Mysol.	A. R. Wallace, Esq. [C.] (Types of species.)
<i>d.</i> ♂ ad. sk.	Waigiou.	A. R. Wallace, Esq. [C.]
<i>e.</i> ♂ ad. sk.	New Guinea.	A. R. Wallace, Esq. [C.]
<i>f, g.</i> Ad. sk.	Astrolabe Mountains.	Mr. A. Goldie [C.]

12. *Ptilotis reticulata*.

*Meliphaga reticulata*, *Temm. Pl. Col.* iv. pl. 29, fig. 2 (1824); *Müll. Verh. Nat. Gesch. Land- u. Volkenk.* p. 162 (1839–44); *Gray, Gen. B. i.* p. 122; *id. Hand-l. B. i.* p. 157, no. 2037.

*Ptilotis reticulata*, *Bp. C. A. i.* p. 392 (1850); *Wall. P. Z. S.* 1863, p. 486; *Finsch, Neu-Guin.* p. 165.

*Adult.* Upper parts greyish olive-brown; wings and tail brown, externally strongly washed with olive-yellow; ocular region dull brown; ear-coverts dark brown, with whitish shaft-streaks; feathers behind the ear bright yellow, forming a large oval patch; cheeks and

throat white; all the feathers of the rest of the underparts of the body greyish olive-brown, with a broad white longitudinal streak; flanks more uniform brownish grey; abdomen and under tail-coverts inclining to dull whitish yellow; under wing-coverts and inner margin of quills cream-colour. Culmen 0·7–0·85 inch, wing 2·9–3·2, tail 2·6–2·8, tarsus 0·86–0·96.

*Hab.* Timor.

<i>a, b.</i> ♂ ad. sk.	Timor.	A. R. Wallace, Esq. [C.].
<i>c.</i> Ad. sk.	Timor.	Purchased.
<i>d.</i> ♂ ad. sk.	E. Timor.	A. R. Wallace, Esq. [C.].

### 13. *Ptilotis sonora*.

*Ptilotis sonora*, *Gould, P. Z. S.* 1840, p. 160; *id. B. Austr.* iv. pl. 33; *id. Handb. B. Austr.* i. p. 504; *Bp. C. A. i.* p. 392; *Cab. Mus. Hein.* i. p. 118.

*Meliphaga sonora*, *Gray, Gen. B.* i. p. 122.

“*Meliphaga vittata, Cuv.*,” *Gray, Hand-l. B.* i. p. 156, no. 2018.

*Adult.* Upper parts pale earthy brown, with a very faint tinge of yellowish olive; the feathers of the crown and hind neck slightly darker towards the shaft: wings and tail light brown, the outer webs strongly washed with bright olive-yellow; a black streak extending from the lores, through the eye, down the sides of the neck; subocular region and ear-coverts bright yellow: behind the ear-coverts a spot of greyish white; underparts dingy yellowish grey, each feather with a diffused longitudinal patch of pale brown; under wing-coverts and inner margin of quills pale fulvous; rest of the under surface of the remiges and tail with a strong silky yellow gloss; “bill black; iris dark brown; legs and feet greenish grey” (*Gould*). Culmen 0·7–0·8 inch, wing 3·7–3·9, tail 3·5–3·7, tarsus 0·95–1·0.

*Hab.* Greater part of Australia.

<i>a.</i> Var. sk.	Australia.	Gould Collection.
<i>b.</i> Ad. sk.	Australia.	Gould Collection.
<i>c, d.</i> ♂ ad.; <i>e.</i> Ad. sk.	S. Australia.	Gould Collection.
<i>f, g.</i> ♂ ♀ ad. sk.	S. Australia.	Sir George Grey [P.].
<i>h.</i> Ad. sk.	S. Australia.	C. D. Fortnum, Esq. [P.].
<i>i.</i> Ad. sk.	Australia.	Sir T. Mitchell [P.].
<i>k.</i> ♂ ad. sk.	River Darling.	Gould Collection.
<i>l.</i> Ad. sk.	Port Lincoln.	Purchased.
<i>m, n.</i> Ad. sk.	Queensland.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>o.</i> ♂ juv. sk.	“Port Essington Expedition.”	Gould Collection.

### 14. *Ptilotis versicolor*.

*Ptilotis versicolor*, *Gould, P. Z. S.* 1842, p. 136; *id. B. Austr.* pl. 34; *id. Handb. B. Austr.* i. p. 506; *Bp. C. A. i.* p. 392; *Reichenb. Vög. Neuholl.* p. 342; *id. Handb.* p. 107, figs. 3347–48; *Ramsay,*

*P. Z. S.* 1868, p. 386; *id. Proc. Linn. Soc. N. S. W.* ii. p. 189, iii. p. 111, iv. p. 100; *Salvad. e d'Albert. Ann. Mus. Civ. Gen.* xiv. p. 80; *Salvad. Orn. Papuasia etc.* ii. p. 334.

*Meliphaga versicolor*, *Gray, Gen. B. i.* p. 122 (1846)

*Ptilotis macleayana*, *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 9 (1876).

*Adult.* General colour above brownish olive; wings and tail externally strongly washed with olive-yellow; most of the feathers of the upper parts with darker centres; a stripe running from the lores through the eye, over the upper half of the ear-coverts, and down the sides of the neck blackish; a stripe below the eye and lower half of the ear-coverts bright yellow; behind the ear-coverts a whitish spot; all the underparts of the body yellow, each feather with a broad longitudinal streak of brown; flanks washed with brownish grey; under wing-coverts and inner margin of quills yellowish fulvous. Culmen 0.8-0.9 inch, wing 3.9-4.3, tail 3.7, tarsus 1-1.1.

*Young birds* have the underparts more inclining to pale brownish yellow instead of bright yellow.

*Hab.* From Rockingham Bay to Cape York, and (according to Ramsay) S.E. New Guinea.

- a. ♂ ad. sk. Dunk Island, May 31, 1848 Voy. H.M.S. 'Rattlesnake.'  
(*J. Macgillivray*).
- b-g. Ad. sk. Queensland. F. D. Godman and O. Salvin, Esqrs. [P.].
- h. ♂ ad. sk. Albany Island, Sept. 1855. J. R. Elsey, Esq. [P.].

#### Subspecies a. *Ptilotis sonoroides*.

*Ptilotis striolata*, *Müll. Mus. Lugd. (teste Salvad.)*; *Scat. Pr. Linn. Soc.* ii. p. 157 (1858, sine descript.); *Gray, P. Z. S.* 1858, p. 190; *id. Cat. B. New Guin.* p. 24; *id. P. Z. S.* 1861, p. 434; *Rosenb. J. f. O.* 1864, p. 122; *id. Malay. Archip.* p. 553; *Gray, Hand-l. B. i.* p. 157, no. 2043.

*Ptilotis sonoroides*, *Gray, P. Z. S.* 1861, p. 428; *Finsch, Neu-Guin.* p. 165; *Gray, Hand-l. B. i.* p. 157, no. 2041; *Salvad. Ann. Mus. Civ. Gen.* xii. p. 338, xvi. p. 77; *id. Orn. Papuasia etc.* p. 335.

*Ptilotis versicolor*, *Finsch (nec Gould), Neu-Guin.* p. 164 (1865).

*Ptilotis melanophrys*, *Scat. P. Z. S.* 1873, p. 693; *Salvad. Ann. Mus. Civ. Gen.* x. p. 145.

*Ptilotis striata (errore)*, *Meyer, Sitz. Ak. Wiss. Wien*, lxx. p. 207, note (1874).

*Adult.* Closely allied to *P. versicolor*, but larger and less vividly coloured. Upper parts pale brown, with a slight olive tinge, inclining to rufous on rump and upper tail-coverts; wings and tail strongly washed with bright olive-yellow; underparts uniform yellowish white, each feather with a broad pale-brown longitudinal streak; "bill and iris black; feet lead-colour" (*Salvadori*). Culmen 0.95 inch, wing 4.2-4.5, tail 3.7-3.9, tarsus 1.1.

*Hab.* New Guinea, Salwati, Waigiou, Mysol, and Batanta.

a. ♂ ad. sk.	Mysol.	A. R. Wallace, Esq. [C.].
b. Ad. sk.	Mysol ( <i>Wallace</i> ).	Gould Collection.
c. Ad. sk.	Waigion.	A. R. Wallace, Esq. [C.].
d. Ad. sk.	New Guinea.	A. R. Wallace, Esq. [C.].

15. *Ptilotis chrysops*.

*Sylvia chrysops*, *Lath. Ind. Orn. Supp.* p. liv.

Black-cheeked Honey-eater, *Lath. Gen. Syn. Suppl.* ii. p. 248.

*Meliphaga chrysops*, *Fig. & Horsf. Linn. Trans.* xv. p. 315 (1826);

*Jard. & Selby, Ill. Orn.* i. pl. 35. fig. 1; *Less. Man. d'Orn.* ii. p. 73;

*Gray, Gen. B.* i. p. 121; *id. Hand-l. B.* i. p. 156, no. 2029.

*Melithreptus gilvicapillus*, *Vieill. Enc. Méth.* p. 606.

*Meliphaga trivirgata*, *Ferr. (fide Gray)*.

Yellow-eared Flycatcher, *White's Voy.* pl. to p. 161.

*Ptilotis chrysops*, *Gould, B. Austr.* iv. pl. 45; *id. Handb. B. Austr.*

i. p. 521; *Bp. C. A.* i. p. 392; *Ramsay, Proc. Linn. Soc. N. S. W.*

ii. p. 189.

*Adult.* General colour above, including the crown, ashy brown, with a slight tinge of olive, most of the feathers slightly darker brown towards their centres; wings and tail brown, externally slightly washed with olive; lores, region below the eye and ear-coverts, and a small spot above and behind the eye bright yellow; cheeks, lower and upper corners of the ear-coverts dull black; a few feathers at the hinder corner of the latter white, forming a small patch of that colour; throat whitish grey, passing into pale ashy brown on the fore neck, chest, and flanks; abdomen dull white, most of the feathers with indistinct brown central streaks; under tail-coverts and thighs pale buff; under wing-coverts and inner margin of quills pale fulvous; "bill blackish brown; iris and eyelash dark brown; feet leaden brown" (*Gould*). Culmen 0.6-0.65 inch, wing 3.0-3.2, tail 2.7-2.9, tarsus 0.7-0.8.

*Hab.* South Australia, as far north as Rockingham Bay.

a. Ad. sk.	River Darling.	Capt. Sturt [P.].
b. Ad. sk.	New South Wales.	J. Gould, Esq. [C.].
c. Ad. st.	New South Wales.	J. Gould, Esq. [C.].
d, e. ♂ ad. sk.	Moreton Bay.	Gould Collection.
f, g, h, i. Ad. sk.	Queensland.	F. D. Godman and O. Salvin, Esqrs. [P.].

16. *Ptilotis limbata*. (Plate VII. fig. 2.)

*Meliphaga (Ptilotis) limbata*, *S. Müller, Verh. Nat. Gesch. Land- en Völkernk.* p. 162 (1839-44).

*Ptilotis limbata*, *Bp. C. A.* i. p. 392; *Wall. P. Z. S.* 1863, p. 486;

*Finsch, Neu-Guin.* p. 164.

*Meliphaga limbata*, *Gray, Gen. B.* i. p. 122 (1846); *id. Hand-l. B.* i. p. 157, no. 2045.

*Adult.* Upper parts pale greyish brown, tinged with olive-yellow on the mantle and back; tail light brown, wings darker brown, both

being strongly washed with olive-yellow on the outer webs; a small space behind the eye bare; the skin below this part covered with very short feathers, which are blackish brown at the base, silky white towards the tip; a few feathers at the upper corner of the ear-coverts bright yellow, forming a small patch: ear-coverts dull greyish; throat, fore neck, and chest whitish grey, slightly washed with yellowish, this colour becoming predominant on the breast; abdomen and under tail-coverts whitish yellow; under wing-coverts and axillaries pale brownish grey, washed with yellow; inner margin of remiges silky whitish; bill and feet blackish brown. Culmen 0·75-0·8 inch, wing 2·7-2·85, tail 2·1-2·4, tarsus 0·75-0·8.

*Hab.* Bali, Lombock, Flores, and Timor.

a. ♂ ad. sk.	Bali ( <i>Wallace</i> ).	Gould Collection.
b, c. ♂ ad. sk.	Lombock.	A. R. Wallace, Esq. [C.].
d. ♂ ad. sk.	Semao, Timor.	A. R. Wallace, Esq. [C.].
e. Juv. sk.	Flores.	A. R. Wallace, Esq. [C.].

### 17. *Ptilotis filigera*.

*Ptilotis filigera*, *Gould*, *P. Z. S.* 1850, p. 278, pl. 34; *Macgilliv. Narr. Voy. Rattlesn.* ii. p. 357; *Gray*, *P. Z. S.* 1858, pp. 174, 190; *id. Cat. B. New Guin.* pp. 23, 55; *Rosenberg*, *Nat. Tijdschr. Ned. Ind.* xxv. p. 286; *id. J. f. O.* 1864, p. 122; *Gould*, *Handb. B. Austr.* i. p. 522; *id. B. Austr. Suppl.* pl. 42; *Meyer*, *Sitzb. Ak. Wiss. Wien*, lxx. p. 290; *Ramsay*, *Proc. Linn. Soc. N. S. W.* iii. p. 111; *Sharpe*, *Journ. Linn. Soc.* xvi. p. 440 (1882).

*Ptilotis flaviventris*, *Gray*, *P. Z. S.* 1861, p. 434 (pt.).

*Tropidorhynchus chrysotis* (pt.), *Finsch*, *Neu-Guin.* p. 165 (1865).

*Xanthotis filigera*, *Gray*, *Hand-l. B. i.* p. 159, no. 2071; *Salvad.* *P. Z. S.* 1878, p. 92; *id. Ann. Mus. Civ. Gen.* xvi. p. 78; *id. Orn. Papuasie etc.* ii. p. 344.

*Anthochaera filigera*, v. *Pelzeln*, *Verhandl. zool.-bot. Gesellsch. Wien*, 1872, p. 427.

*Ptilotis* (*Xanthotis*) *filigera*, *Ramsay*, *Proc. Linn. Soc. N. S. W.* ii. p. 129.

*Meliphaga filigera*, *Rosenberg*, *Malay. Archip.* p. 365 (1879).

*Adult.* Feathers of crown of head and hind neck ashy brown washed with olive, with darker centres; feathers of hind neck with narrow grey tips; feathers of the mantle and back brown, edged with olive; wings and tail brown, with paler edges; ear-coverts silky grey; subocular region and feathers above the ear-coverts white, those behind the ear-coverts golden yellow, forming a narrow streak; throat whitish grey; rest of underparts pale rusty buff, each feather faintly tipped with whitish; chest tinged with olive; flanks, under wing-coverts, and inner margin of quills rich fulvous; "bill olive-black; naked space beneath the eye yellow; feet slate-colour" (*Gould*). Culmen 1-1·1 inch, wing 3·5-4·1, tail 3-3·2, tarsus 1-1·05.

*Young birds* have the feathers of the hind neck not tipped with light grey, the underparts strongly washed with rufous, and the wing-coverts broadly edged with this colour.

*Hab.* Australia from Rockingham Bay to Cape York and the Gulf of Carpentaria; New Guinea and Aru Islands.

<i>a, b.</i> ♂; <i>c.</i> ♀ ad. sk.	Aru Islands.	A. R. Wallace, Esq. [C.].
<i>d.</i> ♂ imm. sk.	Aru Islands.	Voy. H.M.S. 'Challenger.'
<i>e.</i> Ad. sk.	Saibai.	Rev. J. Macfarlane [C.].
<i>f, g.</i> Ad. sk.	Astrolabe Mountains.	Mr. A. Goldie [C.].
<i>h.</i> Ad. sk.	Port Moresby.	Mr. A. Goldie [C.].
<i>i.</i> ♂ ad. sk.	Cape York.	Voy. H.M.S. 'Challenger.'
<i>k.</i> Ad. st.	Cape York.	J. Gould, Esq. (Type of species.)
<i>l, m, n, o.</i> ♂ ♀ ad. sk.	Cape York.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>p.</i> Ad. sk.	Somerset, Cape York.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>q, r.</i> Ad. sk.	Port Albany.	Purchased.

### 18. *Ptilotis chrysolis*.

- Philedon chrysolis*, *Less. Voy. Cog., Zool.* i. p. 645, pl. 21 (1826); *Rosenberg, Malay. Archip.* p. 395.  
*Myzantha flaviventer*, *Less. Man. d'Orn.* ii. p. 67 (1828).  
*Myzantha chrysolis*, *Less. Traité d'Orn.* i. p. 302 (1831); *id. Compl. Buff., Ois.* p. 594.  
*Tropidorhynchus chrysolis*, *Gray, Gen. B.* ii. p. 125 (1846); *Bp. C. A. i.* p. 390; *Sclat. Proc. Linn. Soc.* ii. p. 158 (1858); *Gray, Cat. B. New Guin.* pp. 25, 55; *Finsch, Neu-Guin.* p. 165.  
*Xanthotis flaviventris*, *Reichenb. Handb. Merop.* p. 139, fig. 3512 (1852).  
*Xanthotis chrysolis*, *Bp. C. R.* xxxviii. p. 262 (1854); *Gray, Hand-l. B. i.* p. 159, no. 2070; *Meyer, Sitzb. Ak. Wiss. Wien*, lxx. pp. 113, 207; *Salvad. Ann. Mus. Civ. Gen.* viii. p. 401, x. p. 147, xvi. p. 78; *id. Orn. Papuasias etc.* ii. p. 347.  
*Ptilotis flaviventris*, *Gray, P. Z. S.* 1858, p. 190; *id. Cat. B. New Guin.* p. 55; *id. P. Z. S.* 1861, p. 429.  
*Ptilotis chrysolis*, *Gray, P. Z. S.* 1859, p. 155.  
*Anthochaera chrysolis*, *Giebel, Thes. Orn.* i. p. 375 (1872); *Rosenberg, Malay. Archip.* p. 553.

*Adult.* Closely allied to *P. filigera*, from which it mainly differs as follows:—Mantle, hind neck, and crown strongly washed with olive; the feathers of the hind neck and occiput generally not tipped with grey; chest and breast rufous, strongly washed with olive-yellow; abdomen, flanks, and under tail-coverts inclining to rufous-brown. Wing 3·7–4 inches.

*Obs.* Specimens from Dorey are somewhat intermediate between this species and *P. filigera*, having the feathers of the hind neck slightly tipped with grey. The specimens from Waigiou are the most richly coloured.

*Hab.* New Guinea, Salwati, Mysol, and Waigiou.

<i>a, b.</i> ♂ ♀ ad. sk.	Dorey.	A. R. Wallace, Esq. [C.].
<i>c.</i> ♂ ad. sk.	Salwati.	A. R. Wallace, Esq. [C.].
<i>d.</i> ♂ ad. sk.	Waigiou.	A. R. Wallace, Esq. [C.].
<i>e.</i> Ad. sk.	Mysol.	A. R. Wallace, Esq. [C.].
<i>f.</i> Ad. sk.	Mysol ( <i>Wallace</i> ).	Gould Collection.

Subspecies *a*. *Ptilotis fusciventris*.

*Ptilotis flaviventris*, *Gray*, *P. Z. S.* 1861, p. 429 (pt.).

*Xanthotis fusciventris*, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 947 (1875),  
xvi. p. 79; *id. Orn. Papuaasia etc.* ii. p. 348.

*Adult.* Closely allied and very similar to *P. chrysotis*, but with the underparts less rufescent, the throat clearer grey, the whole breast greenish olive, and the abdomen mottled with brownish grey.

*Hab.* Batanta and Waigiou.

19. *Ptilotis meyeri*.

*Ptilotis pyrrotis*, *Meyer (nec Less. Rev. Zool.* 1840, p. 271), *Sitzb. Ak. Wiss. Wien*, lxx. p. 206 (1874).

*Xanthotis meyeri*, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 947 (1875),  
xvi. p. 79; *id. Orn. Papuaasia etc.* ii. p. 349.

“Upper parts ashy brown (fuscous grey), paler on the underparts; behind the ear-coverts a small band of rich golden yellow; throat grey; upper wing-coverts faintly edged with rufous; under wing-coverts rufous-grey; inner margin of quills rufous; shafts of the remiges and rectrices dark brown above, white below; bill and feet black. Culmen 1·1 inch, wing 4·1, tail 3·4, tarsus 0·9.”

*Hab.* Jobi Island. (*Salvadori*.)

20. *Ptilotis flavigularis*.

*Melithreptes flavicollis (with M. flavigula)*, *Vieill. Nouv. Dict. Hist. Nat.* xiv. p. 325 (1817).

*Ptilotis flavigula*, *Gould, P. Z. S.* 1838, p. 24; *id. B. Austr.* iv. pl. 35; *id. Handb. B. Austr.* i. p. 508; *Bp. C. A.* i. p. 392; *Cab. Mus. Hein.* i. p. 118.

*Meliphaga flavigula*, *Gray, Gen. B.* i. p. 122.

*Meliphaga flavicollis*, *Gray, Hand-l. B.* i. p. 156, no. 2021.

*Ptilotis flavicollis*, *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 189.

*Adult.* Entire crown, occiput, and sides of head blackish silky grey, with dark central streaks; a few feathers behind the ear-opening pale yellow; the whole chin, throat, edge of wing, and part of the under wing-coverts bright gamboge-yellow; all the upper parts, including the tail and the outer webs of the remiges, uniform rich olive-yellow; inner web of the remiges brown, broadly edged with pale fulvous yellow; under surface of tail-feathers silky yellow; sides of neck, fore neck, and chest dull smoky grey, changing into dull greyish yellow on the abdomen and flanks; under tail-coverts and thighs brown at base, broadly edged or tipped with yellow; “bill black; interior of the bill, and the throat and tongue rich olive; iris wood-brown; feet brownish lead-colour” (*Gould*).

	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.
Ad. ♂ . . . . .	0·7-0·8	4·0-4·4	4·2-4·4	1·0
Ad. ♀ . . . . .	0·7	3·65	3·6	0·9

*Hab.* South Australia, Victoria, New South Wales, and Tasmania.

<i>a, b.</i> [♂ ♀] ad. sk.	Tasmania.	Gould Collection.
<i>c.</i> ♂ ad. sk.	Tasmania.	J. Gould, Esq. [C.].
<i>d.</i> Imm. sk.	Tasmania.	Ronald Gunn, Esq. [P.].
<i>e, f, g.</i> Ad. sk.	[Tasmania.]	J. B. Jukes, Esq. [C.].
<i>h.</i> Ad. sk.	[Tasmania.]	Antarctic Expedition.
<i>i, k.</i> Ad. sk.	[S. Australia.]	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>l.</i> Ad. sk.	[S. Australia.]	Sir T. Mitchell [C.].

### 21. *Ptilotis fasciularis*.

*Ptilotis fasciularis*, *Gould*, *P. Z. S.* 1851, p. 285; *id. B. Austr. Suppl.* pl. 40; *id. Handb. B. Austr.* i. p. 507; *Gray, Hand-l. B.* i. p. 156, no. 2020; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 189.

*Adult.* Upper parts brown, with an olive shade, the feathers with darker centres, especially on the head and hind neck; wings and tail light brown externally, strongly washed with olive-yellow; a line from the lores, through the eye, and down the sides of the neck blackish brown; subocular region, ear-coverts, and part of the sides of the neck bright yellow, passing into whitish towards the shoulders; on the hinder margin of the ear-opening a few white feathers; chin, cheeks, throat, and part of the fore neck freckled with brown, whitish, and pale yellow, each feather being brown at the base and broadly tipped with yellow; chest uniform dusky brown; rest of underparts dingy yellowish white, each feather with a brownish central patch; edge of wing, under wing-coverts, and inner margin of quills fulvous yellow; "iris lead-colour; bill bluish black, with a yellow gape; feet black" (*Gould*). Culmen 0·8 inch, wing 3·75, tail 3·4, tarsus 1.

*Hub.* From Rockingham Bay to the Wide-Bay district.

<i>a, b.</i> Ad. sk.	Queensland ( <i>Cockerell</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>c.</i> ♀ ad. sk.	Port Curtis, Queensland, April ( <i>Dr. Coppinger</i> ).	Voy. H.M.S. 'Alert.'
<i>d.</i> Ad. st.	Moreton Bay.	J. Gould, Esq. (Type of species.)
<i>e.</i> ♀ ad. sk.	Moreton Bay ( <i>Strange</i> ).	Gould Collection.
<i>f.</i> Ad. sk.	Moreton Bay.	Gould Collection.

### 22. *Ptilotis leucotis*.

White-eared Honey-eater, *Lewin, B. New S. W.* pl. 20.

White-eared Thrush, *Lath. Gen. Syn. Suppl.* ii. p. 373.

*Turdus leucotis*, *Lath. Ind. Orn.* p. xlv (1790).

*Meliphaga leucotis*, *Fig. & Horsf. Linn. Trans.* xv. p. 314 (1826);

*Temm. Pl. Col.* 435; *Jard. & Selby, Ill. Orn.* pl. 35. fig. 2; *Gray, Gen. B.* i. p. 122; *id. Hand-l. B.* i. p. 156, no. 2022.

*Ptilotis leucotis*, *Gould, B. Austr.* iv. pl. 36; *id. Handb. B. Austr.*



i. p. 510; *Bp. C. A.* i. p. 392; *Ramsay, Proc. Linn. Soc. N. S. W.*  
ii. p. 189.

*Adult.* Feathers of the whole crown, occiput, and nape grey, with a dark central streak; ear-coverts pure white; rest of the sides of the head, cheeks, throat, and fore neck dull black; hind neck, mantle, and back rich yellowish olive; wings and tail brown, externally strongly washed with olive-yellow; tail-feathers with narrow pale tips; chest and sides of neck olive-yellow like the mantle, changing or passing into yellow on the breast, abdomen, and under tail-coverts; flanks washed with greyish olive; edge of wing, axillaries, and tips of most of the wing-coverts rich yellow; rest of the under wing-coverts and inner margin of quills fulvous yellow; "bill black; iris greenish grey, with a narrow ring of pale wood-brown; feet leaden greenish grey" (*Gould*).

*Young and immature* birds have the fore neck and throat dull brownish grey instead of black, and the yellow in the plumage is much less developed than in the adult.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Ad. ♂ . . . . .	0·73	3·7-4·2	3·8-4·2	0·9
Ad. ♀ . . . . .	0·63	3·5	3·2	0·85

*Hab.* South-eastern, Southern, and Western Australia.

<i>a, b.</i> ♂ ♀ ad. sk.	New South Wales.	Gould Collection.
<i>c.</i> Ad. st.	New South Wales.	J. Gould, Esq. [C.].
<i>d.</i> Ad. sk.	S.E. Australia.	Sir D. C. Cooper [P.].
<i>e, f.</i> [♂] ad. sk.	S.E. Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>g, h.</i> [♂ ♀] ad. sk.	Murray River.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>i.</i> ♂ ad.; <i>k.</i> Juv. sk.	Murray River.	Sir George Grey [P.].

### 23. *Ptilotis cockerelli*.

*Ptilotis cockerelli*, *Gould, Ann. & Mag. N. H.* 1869, iv. p. 109; *id.*  
*B. Austr. Suppl.* pl. 43; *Ramsay, Proc. Linn. Soc. N. S. W.* ii.  
p. 189.

*Meliphaga cockerelli*, *Gray, Hand-l. B.* i. p. 157, no. 2038.

*Adult.* Upper parts of the body brown, passing into dark silky grey on the forehead; ocular region and ear-coverts silky silvery grey; a few feathers of the cheeks, the long tufty feathers on the hinder and upper margins of the ear-opening, and the tips of a few feathers on the sides of the upper chest golden yellow; wings and wing-coverts and tail brown, strongly washed with rich wax-yellow on the outer webs; greater and median wing-coverts with small whitish tips; under wing-coverts and inner margin of quills fulvous; edge of wing and the rest of the underparts white; most of the feathers with rather indistinct brown streaks or patches; feathers of the

throat and fore neck pure white, of a narrow lanceolate shape and somewhat hairy structure; "bill black; feet horn-colour" (*Gould*).

The sexes are alike in plumage.

*Immature birds* have the tips of the feathers of the throat and fore neck washed with yellow.

Ad. ♂. Culmen 0·85–0·9 inch, wing 3·0, tail 2·7, tarsus 0·74.

Ad. ♀. " 0·7 " " 2·65, " 3·3, " 0·7.

*Hab.* Cape-York district, N. Australia.

a, b. [♂ ♀] ad. sk.	Cape York ( <i>Cockerell</i> ).	Gould Collection. (Types of species.)
c. ♂ ad. sk.	Cape York.	Gould Collection.
d. Imm. sk.	Cape York.	Purchased.

#### 24. *Ptilotis auricomis*.

*Muscicapa auricomis*, *Lath. Ind. Orn. Suppl.* i. p. xlix.

*Muscicapa mystacea*, *Lath. op. cit.* p. li.

*Muscicapa novæ hollandiæ*, *Lath. Ind. Orn.* ii. p. 478.

Yellow-tufted Flycatcher, *Lath. Gen. Syn. Suppl.* ii. p. 215.

*Certhia auriculata*, *Shaw, Gen. Zool.* viii. p. 236.

L'Héorotaire à oreilles jaunes, *Vieill. Ois. Dor.* ii. p. 123, pl. 85.

Tufted-eared Honey-eater, *Lath. Gen. Hist.* iv. p. 197.

*Meliphaga auricomis*, *Swains. Zool. Ill.* i. pl. 43; *Gray, Hand-l. B.* i. p. 156, no. 2023.

*Philemon erythrotis*, *Vieill. Nouv. Dict.* xxvii. p. 429.

*Ptilotis auricomis*, *Gould, B. Austr.* iv. pl. 37; *id. Handb. B. Austr.*

i. p. 511; *Cab. Mus. Hein.* i. p. 118; *Bp. C. A.* i. p. 392; *Rosenb.*

*Nat. Tijdschr. Ned. Ind.* xxv. p. 236 (*New Guin.*); *id. J. f. O.*

1864, p. 122; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 189; *Salvad.*

*Orn. Papuasias etc.* ii. p. 339.

*Adult.* This species represents *P. cassidix* in New South Wales; it is much smaller than that species, and has the hind neck, mantle, and back pale olive-brown instead of dark brown; the wings and tail are pale brown, externally strongly washed with yellowish olive; the tail-feathers with rather wide tips on the inner webs. The feathers of the crown lie flat, and do not form a crest or helmet-like elevation as in *P. cassidix*. Coloration of head and all the underparts as in the latter species. Culmen 0·7 inch, wing 3·2–3·5, tail 3–3·5, tarsus 0·8–0·9.

The sexes are alike in plumage.

*Hab.* From Port Denison to New South Wales and Victoria.

a. ♂ ad. sk.	Moreton Bay.	Gould Collection.
b. ♀ ad. sk.	Queensland.	Purchased.
c. [♂] ad. sk.	Queensland ( <i>Cockerell</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].
d. Ad. sk.	N.E. Australia.	Gould Collection.
e. ♂ ad. st.	N.E. Australia.	J. Gould, Esq.
f. Ad. st.	N.E. Australia.	W. MacLeay, Esq. [P.].

25. *Ptilotis cassidix*.

- Ptilotis cassidix*, *Jard. P. Z. S.* 1866, p. 558; *Gould, B. Austral. Suppl.* pl. 39; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 189.  
*Ptilotis leadbeateri*, *M' Coy, Ann. & Mag. N. H.* 1867, xx. p. 442.  
*Meliphaga cassidix*, *Gray, Hand-l. B.* i. p. 156, no. 2030.

*Adult.* Entire crown of head and nape dull yellow; sides of head, including the lores and ear-coverts, jet-black; the feathers on the hinder margin of the ear-opening prolonged, forming a long tuft on each side of the neck, rich gamboge-yellow; hind neck, mantle, and back dark olive-brown, slightly paler on the upper tail-coverts; wings and tail blackish brown, externally narrowly edged with olive-yellow; some of the primaries very narrowly, the tail-feathers broadly, tipped with yellowish white; under surface of tail silky yellow; inner margin of quills yellowish buff; sides of the throat rich gamboge-yellow; the feathers in centre of throat with blackish bases; fore neck and rest of underparts, including edge of wing, rich yellow, shaded with olive-grey on the breast and flanks. Culmen 0·7 inch, wing 3·8-4·1, tail 4-4·2, tarsus 1-1·5.

*Females* have the mantle and back slightly paler brown, and are a little smaller than the males. Wing 3·5 inches.

*Hab.* Victoria, South Australia, and interior of Australia.

<i>a-f.</i> [♂ ♀] ad. sk.	Victoria.	Gould Collection.
<i>g, h.</i> [♂] ad. sk.	Western Port Bay, Victoria.	Gould Collection.
<i>i.</i> ♂ ad. sk.	S. Australia.	F. Nicholson, Esq. [P.].
<i>k, l, m, n.</i> ♂ ♀ ad. sk.	S. Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].

26. *Ptilotis cratitia*.

- Ptilotis cratitius*, *Gould, P. Z. S.* 1840, p. 160.  
*Meliphaga cratitia*, *Gray, Gen. B.* i. p. 122; *id. Hand-l. B.* i. p. 157, no. 2049.  
*Lichenostomus cratitius*, *Cab. Mus. Hein.* i. p. 119, note.  
*Lichenostomus occidentalis*, *Cab. Mus. Hein.* i. p. 119, note.  
*Ptilotis cratitia*, *Gould, B. Austr.* iv. pl. 38; *id. Handb. B. Austr.* i. p. 513; *Bp. C. A.* i. p. 392; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 189.  
*Ptilotis occidentalis*, *Gray, Hand-l. B.* i. p. 157, no. 2050.

*Adult.* All the upper parts of the body uniform olive-green, inclining to grey on the crown: a line from the lores through the eye and above the ear-coverts dull black; ear-coverts dark silky grey; feathers behind the ear, cheeks, and part of the upper throat bright yellow; wings and tail light brown, strongly washed with olive-yellow; under wing-coverts and inner margin of quills pale fulvous yellow; all the underparts of the body greyish yellow; "from the gape down each side of the throat, for five eighths of an inch, a naked fleshy appendage, free at the lower end, of a beautiful lilac colour and very conspicuous in the living bird; iris and eyelash black; bill black; feet blackish brown tinged with olive" (*Gould*).

Ad. ♂. Culmen 0·7 inch, wing 3·4 \*, tail 3·3, tarsus 0·85.

Ad. ♀. „ 0·62 „ „ 3·1, „ 3·0, „ 0·82.

*Hab.* Victoria, South and West Australia.

a. Ad. sk.	South Australia.	Gould Collection.
b. [♂] ad. sk.	South Australia.	Sir George Grey [P.].
c. [♀] imm. sk.	South Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].
d. Imm. sk.	[N. Australia.]	Gould Collection.

### 27. *Ptilotis penicillata*.

*Meliphaga penicillata*, *Gould, P. Z. S.* 1836, p. 143; *Gray, Gen. B.* i. p. 122; *id. Hand-l. B.* i. p. 156, no. 2027.

*Ptilotis penicillata*, *Gould, B. Austr.* iv. pl. 43; *id. Handb. B. Austr.* i. p. 519; *Bp. C. A.* i. p. 392; *Cab. Mus. Hein.* i. p. 119; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 189.

*Adult.* General colour above pale greyish brown with a tinge of olive; crown slightly washed with yellow; wings and tail brown, strongly washed with olive-yellow, sometimes slightly tipped with whitish; under wing-coverts and inner margin of quills whitish buff; sides of head, including the region round the eye and ear-coverts, dull yellow; behind the ear-coverts a patch of pure silky white tufted feathers; all the underparts whitish buff, slightly washed with yellowish brown on the throat, fore neck, and chest; "iris dark brown; bill black; feet purplish flesh-colour" (*Gould*).

♂. Culmen 0·6 inch, wing 3·3-3·5, tail 3·1-3·3, tarsus 0·89.

♀. Wing 3·1 inches.

*Hab.* Southern and Eastern Australia, as far as the Wide-Bay district.

a, b. Ad. sk.	South Australia.	Purchased.
c, d. ♂ ad. sk.	South Australia.	Sir George Grey [P.].
e. Ad. sk.	South Australia.	Sir D. C. Cooper [P.].
f, g. Ad. sk.	South Australia.	Gould Collection.
h. Ad. sk.	New South Wales.	F. D. Godman and O. Salvin, Esqrs. [P.].
i. Ad. st.	New South Wales.	J. Gould, Esq. [C.].
k. Ad. st.	Interior of Australia.	Captain Sturt [P.].

### 28. *Ptilotis ornata*.

*Ptilotis ornata*, *Gould, P. Z. S.* 1838, p. 24; *id. B. Austr.* iv. p. 39; *id. Handb. B. Austr.* i. p. 515; *Bp. C. A.* i. p. 392; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 189.

*Meliphaga ornata*, *Gray, Gen. B.* i. p. 122; *id. Hand-l. B.* i. p. 156, no. 2024.

*Adult.* General colour above light olive-brown with a shade of grey in it; crown and sides of head, outer webs of quills and tail very strongly washed with bright olive-yellow; rest of the tail and

\* Certainly not 2·5 as stated in Gould's 'Handbook.'

wings brown; under wing-coverts and inner margin of quills whitish fulvous; a short indistinct line beneath the eye dull yellow; rest of the ciliary region dull black; the feathers behind the pale brownish ear-coverts elongated, and forming a rather large patch of bright yellow; underparts of the body dingy yellowish white, each feather with a broad brown central streak, these streaks being less developed on the abdomen and under tail-coverts; "bill black; feet purplish brown." Culmen 0.5-0.6 inch, wing 3.1-3.6, tail 2.1-3, tarsus 0.72-0.82.

"*Young birds* have the nostrils and basal portion of the bill orange instead of black as in the male" (*Gould*).

*Female*. Resembles the male, but is slightly smaller.

*Hab*. Victoria, South and West Australia.

a. ♂ ad. sk.	Murray River.	Sir George Grey [P.].
b, c, d. Ad. sk.	South Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].

### 29. *Ptilotis plumula*.

*Ptilotis plumula*, *Gould*, *P. Z. S.* 1840, p. 150; *id. B. Austr.* iv. pl. 40; *id. Handb. B. Austr.* i. p. 516; *Bp. C. A.* i. p. 392; *Cab. Mus. Hein.* i. p. 118; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 189. *Meliphaga plumula*, *Gray, Gen. B.* i. p. 122; *id. Hand-l. B.* i. p. 157, no. 2039.

*Adult*. General colour above pale brownish grey, tinged with olive-yellow, this latter colour becoming predominant on the crown and outer webs of the wing- and tail-feathers; præocular region blackish; cheeks and ear-coverts yellowish grey; most of the ear-coverts blackish brown towards the tip, thus forming a blackish line on the anterior margin of the large bright yellow patch behind the ear-coverts and on the sides of the neck; cheeks and underparts of the body pale greyish yellow, faintly streaked with brownish on the chest, fore neck, and throat; abdomen and under tail-coverts inclining to pale creamy yellow; under wing-coverts and inner margin of quills pale fulvous; "iris dark reddish brown; bill black; feet apple-green" (*Gould*). Culmen 0.6 inch, wing 3-3.2, tail 2.6-2.8, tarsus 0.86.

*Hab*. Western and Southern Australia.

a. Ad. sk.	South Australia.	Gould Collection.
b, c. Ad. sk.	Murray Scrub.	J. Gould, Esq. [C.].
d, e. Ad. sk.	South Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].

### 30. *Ptilotis flavescens*.

*Ptilotis flavescens*, *Gould, P. Z. S.* 1839, p. 144; *id. B. Austr.* iv. pl. 41; *id. Handb. B. Austr.* i. p. 517; *Bp. C. A.* i. p. 392; *Gray, Hand-l. B.* i. p. 156, no. 2025; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 189.

*Adult*. Upper parts pale yellowish brown, the yellow being more

pronounced on the outer webs of the wing and tail; sides of head, including the ocular region and the ear-coverts, and all the underparts pale yellow; under wing-coverts and inner webs of remiges pale isabelline. Culmen 0·58 inch, wing 2·65-2·75, tail 2·4, tarsus 0·7.

*Hab.* North coast of Australia and South-eastern New Guinea.

*a, b.* Ad. sk. North Australia. Sir George Grey [P.].

#### Subspecies *a.* ***Ptilotis germana.***

? *Ptilotis flavescens* (pt.), *Ramsay, Pr. Linn. Soc. N. S. W.* ii. p. 189 (1877).

*Ptilotis germana*, *Ramsay, op. cit.* iii. pp. 2, 39, 285 (1878), iv. p. 100; *Salvad. Ibis*, 1879, p. 325; *id. Ann. Mus. Civ. Gen.* xvi. p. 77; *id. Orn. Papuasias etc.* ii. p. 336.

Very similar to *P. flavescens*, from which it differs in its considerably smaller size and in having the yellow stripe behind the eye and the black stripe beneath the ear-coverts more developed. Culmen 0·57 inch, wing 3, tail 2·25, tarsus 0·75.

*Hab.* Southern New Guinea.

*a.* Ad. sk. Port Moresby. Dr. Turner [P.].  
*b, c.* Ad. sk. Port Moresby, S.E. New Guinea. O. C. Stone, Esq. [C.].

*Obs.* I refer the two specimens from Port Moresby collected by Mr. Stone to this form, which does not deserve specific rank. Very likely *P. germana* is nothing but *P. flavescens* of Gould, the habitat of which species is the north coast of Australia, and not West Australia as has sometimes been stated, in order to establish a different geographical range for the two species or races respectively in question. Mr. Gould frequently understood by North-west Australia the country west of the Cape York Peninsula.

#### 31. ***Ptilotis flava.***

*Ptilotis flava*, *Gould, P. Z. S.* 1842, p. 136; *id. B. Austr.* iv. pl. 42; *id. Handb. B. Austr.* i. p. 518; *Bp. C. A.* i. p. 392; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 189.

*Meliphaga flava*, *Gray, Gen. B.* i. p. 122; *id. Hand-l. B.* i. p. 156, no. 2026.

*Adult.* All the upper parts are entirely uniform rich olive-yellow; all the underparts, including the under wing-coverts and the inner margin of the quills, lemon-yellow, slightly duller on the flanks and chest; ear-coverts of the same colour as the crown; a few feathers above the eye lemon-yellow; a spot in front of the eye slightly duller than the crown\*. "Bill blackish brown; feet reddish flesh-brown" (*Gould*).

\* Gould's description as given in his 'Handbook' is incorrect, whilst the original description is correct.

	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.
Ad. ♂ .....	0·8	3·5-3·65	3·0-3·2	0·95
Ad. ♀ .....	0·7	3·2-3·4	2·7	0·71

*Obs.* One specimen in the collection of the British Museum exhibits an interesting case of xanthochroism, the greater part of the plumage being pale creamy yellow, and the shafts of nearly all the feathers white.

*Hab.* North Australia: from the Gulf of Carpentaria to Cape York, and southwards to Port Denison.

<i>a, b.</i> ♀ ad. sk.	Port Essington (R. Burdikin).	J. Gould, Esq.
<i>c, d, e.</i> Ad.; <i>f.</i> Var. sk.	Cape-York district.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>g.</i> ♀ ad. sk.	Port Denison, Queensland, May 1881 ( <i>Dr. Coppinger</i> ).	Voy. H.M.S. 'Alert.'

### 32. *Ptilotis marmorata*. (Plate IV.)

*Ptilotis marmorata*, *Sharpe, Journ. Linn. Soc., Zool.* xvi. p. 438 (1882); *id. in Gould's B. New Guin.* pt. xiv.

Closely allied to *P. cinerea*; the feathers of the throat, fore neck, and breast broadly tipped with whitish and faintly edged with olive-grey, so as to give these parts a very mottled appearance; under wing-coverts fulvous white; some of the tail-feathers broadly edged with fulvous on the inner web, like the remiges; subocular region whitish. Culmen 0·9-1 inch, wing 3·8-4·2, tail 3·2-3·9, tarsus 1·1-1·18.

*Hab.* South-eastern New Guinea.

<i>a.</i> Ad. sk.	Astrolabe Mountains.	Mr. A. Goldie [C.]. (Type of species.)
<i>b-d.</i> [♂ ♀] ad. sk.	Astrolabe Mountains.	Mr. A. Goldie [C.].

### 33. *Ptilotis cinerea*.

*Ptilotis cinerea*, *Scl. P. Z. S.* 1873, p. 693; *Meyer, Sitzb. Ak. Wiss. Wien*, lxx. p. 128; *Salvad. Ann. Mus. Civ. Gen.* vii. p. 776, x. p. 145, xvi. p. 77; *id. Orn. Papuasia etc.* ii. p. 338.

*Adult.* The feathers of the crown dark brown, broadly edged with grey; mantle and back olive-brown; quills and wing-coverts and tail umber-brown, narrowly edged with pale olive; inner webs of remiges and rectrices broadly margined with fulvous; under wing-coverts fulvous grey; sides of head and all the underparts of the body pale ashy grey, slightly tinged with olive; "bill black; feet pale ashy; iris chestnut" (*Selater*). Culmen 0·95 inch, wing 4·1, tail 3·8, tarsus 1·05.

*Hab.* Arfak Mountains, N.W. New Guinea.

<i>a, b.</i> ♂ ♀ ad. sk.	Arfak Mountains, June 1874 ( <i>Bruijn</i> ).	Mus. Civico Genova.
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34. *Ptilotis virescens*. (Plate VII. fig. 1.)

*Ptilotis virescens*, *Wall. P. Z. S.* 1863, p. 494; *Finsch, Neu-Guin.* p. 165.

*Arachnothera simplex*, *Gray (nec Müll.)*, *Hand-l. B. i.* p. 111, no. 1370 (1869).

*Adult.* This species closely resembles *Cinnyris obscura* in its general coloration, size, and the shape of the bill; it differs, however, from the African species by the total absence of pectoral tufts. Upper parts olive-green, the feathers of the crown dusky towards their centres; under wing-coverts and inner edge of remiges white; underparts of body pale grey, strongly washed with dull olive or yellowish olive, except on the throat, which is purer grey; bill uniform black; feet lead-colour.

The sexes are alike in plumage.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂ .....	0·96	2·75	2·1	0·80
♀ .....	0·85	2·55	1·9	0·78

*Hab.* Lombock.

*Obs.* This species is the connecting link between *Ptilotis* and the genera *Cinnyris* and *Arachnothera*, the nostrils being like those of the latter genus, whilst the tail and shape of bill resemble those of *Cinnyris*.

a. ♂ ad. sk.	Lombock.	A. R. Wallace, Esq. [C.] (Type of species.)
b. ♂ ad.; c. Juv. sk.	Lombock.	A. R. Wallace, Esq. [C.]
d, e. ♀ ad. sk.	Lombock ( <i>Wallace</i> ).	Gould Collection.

35. *Ptilotis megalorhynchus*. (Plate V.)

*Ptilotis megarhynchus*, *Gray, P. Z. S.* 1858, p. 174; *id. Cat. B. New Guin.* p. 24; *id. P. Z. S.* 1859, p. 155, 1861, pp. 428, 434; *Rosenb. Tijdschr. Nederl. Ind.* xxv. p. 174; *id. J. f. O.* 1864, p. 122; *Finsch, Neu-Guinea*, p. 165; *Wallace, P. Z. S.* 1865, p. 478; *Gray, Hand-l. B. i.* p. 156, no. 2033; *Meyer, Sitzb. Ak. Wiss. Wien*, lxx. p. 208; *id. Ibis*, 1875, p. 147 (note).

*Arachnothera vagans*, *Bernstein, J. f. O.* 1864, p. 405; *Finsch, J. f. O.* 1866, p. 139; *Salvad. Ann. Mus. Civ. Gen.* vii. p. 952; *Rosenberg, Malay. Archip.* pp. 395, 586.

*Ptilotis rostrata*, *Wall. P. Z. S.* 1865, p. 478; *Gray, Hand-l. B. i.* p. 156, no. 2034.

*Arachnographis vagans*, *Gray, Hand-l. B. i.* p. 111, no. 1374.

*Melilestes megarhynchus*, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 951 (1875); *id. Orn. Papuasie etc.* ii. p. 313; *Sharpe, Journ. Linn. Soc., Zool.* xvi. p. 437.

*Melidipnus megarhynchus*, *Cab. & Reichenow, J. f. O.* 1876, p. 321; *Salvad. P. Z. S.* 1877, p. 194.

*Meliphaga megarhynchus*, *Rosenb. Malay. Archip.* pp. 365, 553 (1869).

*Adult.* All the upper parts uniform olive-brown, the brown colour



more or less inclining to rusty brown on the lower back, the tail, and the outer webs of the remiges and wing-coverts; sides of head, throat, fore neck, and breast dull olive-grey tinged with yellowish brown, which colour becomes predominant on the flanks, abdomen, and under tail-coverts; edge of wing, under wing-coverts, and inner margin of quills fulvous; "bill brown; feet lead-colour" (*Salvadori*). Culmen 1.5-1.8 inch, wing 3.6-4.1, tail 3-3.4, tarsus 1-1.12.

*Hab.* New Guinea, Salwati, Aru Islands, Waigiou, Mysol.

a. [♂] ad. sk.	Dorey.	Gould Collection.
b, c. Ad. sk.	Dorey.	A. R. Wallace, Esq. [C.].
d. Ad. sk.	New Guinea.	A. R. Wallace, Esq. [C.].
e. Ad. sk.	Astrolabe Mountains.	Mr. A. Goldie [C.].
f. ♂ imm. sk.	Aru Islands.	A. R. Wallace, Esq. [C.].
g. ♂ ad. sk.	Waigiou.	A. R. Wallace, Esq. [C.].
		(Type of <i>P. rostrata</i> .)
h, i, k. [♂] ad. sk.	Mysol.	A. R. Wallace, Esq. [C.].

### 36. *Ptilotis unicolor*.

*Ptilotis unicolor*, *Gould, P. Z. S.* 1842, p. 136; *id. B. Austr.* iv. pl. 46; *Bp. C. A.* i. p. 392.

*Meliphaga unicolor*, *Gray, Gen. B.* i. p. 122; *id. Hand-l. B.* i. p. 157, no. 2048.

*Stomiopera unicolor*, *Reichenb. Handb. Meropineæ*, i. p. 109; *Gould, Handb. B. Austr.* i. p. 523; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 189.

*Adult.* Upper parts pale greyish brown with a slight olive tinge, especially on the outer webs of the tail and wings, which are light brown; loreal region dusky brown; underparts of the body pale brownish grey, palest on the abdomen and under tail-coverts; under wing-coverts and inner margin of quills fulvous white; "iris obscure red; bill dark olive-brown; naked gape fleshy white, passing into yellow at the corner of the mouth; feet light ash-grey" (*Gould*). Culmen 0.8-0.9 inch, wing 3.6-4, tail 3-3.4, tarsus 0.9-1.

*Hab.* North Australia.

a, b, c. [♂ ♀] ad. sk.	N.W. Australia.	J. R. Elsey, Esq. [P.].
d. ♂ ad. sk.	North Australia, lat. 17°, long. 136°.	J. R. Elsey, Esq. [P.].
e. ♂ ad. sk.	Port Darwin, Nov. 2, 1881 ( <i>Dr. Coppinger</i> ).	Voy. H.M.S. 'Alert'
f. Ad. sk.	Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].
g. Ad. sk.	Australia.	Gould Collection.
h. Ad. st.	Australia.	Purchased.

### 37. *Ptilotis erythropleura*.

*Ptilotis erythropleura*, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 949 (1875), xvi. p. 77; *id. Orn. Papuasias etc.* ii. p. 337.

*Ptilotis*, sp., *Salvad. Ann. Mus. Civ. Gen.* vii. p. 950 (*juv., teste Salvad.*).

This species is distinguished by having the sides of the head entirely covered with feathers; it wants the yellow or white post-auricular patch; the tail is rounded, and the sides of the breast and flanks are rufous.

Upper parts dark brown; feathers of the crown edged with ashy grey, those of the back with olive; sides of head grey, darker towards the centre; feathers of fore neck and chest grey, slightly edged with whitish; abdomen and under tail-coverts grey, edged with yellowish white; sides of breast and flanks and the axillaries rufous; wings blackish brown, edged with fulvous; inner web of remiges edged with white; under wing-coverts grey, with yellow edges; tail blackish brown, edged with olive and narrowly tipped with white; bill black; feet lead-colour. Culmen 0·8 inch, wing 3·2-3·45, tail 2·8-3·1, tarsus 1.

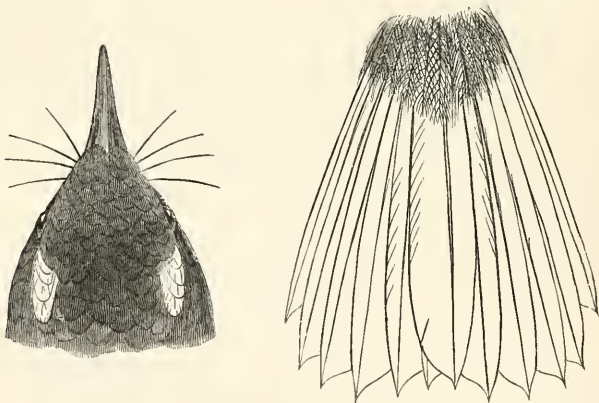
*Female.* Like the male, but a little smaller.

*Young birds* are olive above; the feathers of the mantle are darker towards their centres, while those of the underparts are paler and edged with yellow; under wing-coverts fulvous; rectrices with white edges to the inner web.

*Hab.* Arfak Mountains, N.W. New Guinea.

### 5. POGONORNIS.

Pogonornis, *Gray, Gen. B. i. p. 123 (1846)* ..... *P. cincta.* Type.



Head and tail of *Pogonornis cincta*.

Bill shorter than the rest of the head, with a strong prominent ridge. Nostrils operculated, partly covered with feathers; strong rictal bristles. First primary long. Tip of wing formed by the fourth to sixth primaries. Secondaries four fifths the length of the

wing; quills internally edged with white. Tail rounded, a little longer than the wing, each feather pointed.

*Range.* New Zealand.

### 1. *Pogonornis cincta*.

*Meliphaga cincta*, *Dubus, Bull. Ac. Sc. Brux.* vi. p. 295 (1839).

*Ptilotis auritus*, *Lafr. Rev. Zool.* 1839, p. 257.

*Ptilotis cincta*, *Gray, Voy. 'Erebus' and 'Terror,' Birds*, p. 4 (1844).

*Pogonornis cincta*, *Gray, Gen. B. i.* p. 123, pl. 39, fig. 4 (1846); *id. Hand-l. B. i.* p. 159, no. 2073; *Reichenb. Handb. Meropinae*, pl. 491, figs. 346-4-65; *Buller, B. New Zeal.* p. 98, pl. 10.

*Adult male.* Head and neck all round, chest, and part of the mantle velvety black; on each side of the head a little behind the eye a few pure white feathers, forming an erectile tuft; lesser wing-coverts and a narrow band across the chest rich yellow; mantle and back blackish brown, with yellowish edges to the feathers; rump and upper tail-coverts olive-brown; wings and tail blackish brown, externally edged with dull yellow or whitish; basal half of some of the innermost secondaries and their coverts pure white; breast and abdomen pale yellowish brown, with darker centres to the feathers; flanks slightly washed with olive; under wing-coverts whitish and grey; inner margin of remiges white; "iris black; bill brownish black; feet pale brown" (*Buller*). Culmen 0.8 inch, wing 4, tail 3.2, tarsus 1.1.

*Adult female.* Dull brownish olive above, inclining to pale brown on the underparts; wings and tail edged with pale brownish olive; white patch on the wings and the tufts on the head far less developed than in the male. Wing 3.75 inches.

*Hab.* New Zealand.

a, b. ♂ ♀ ad. sk.	New Zealand.	Capt. Stokes [P.].
c. Ad. sk.	New Zealand.	New Zealand Co. [P.].
d. ♀ ad. sk.	New Zealand.	Miss R. Stone [P.].
e. ♂ ad. sk.	New Zealand.	New Zealand Co. [P.].

### 6. MELIORNIS.

Type.

<i>Meliornis</i> , <i>Gray, List of Genera of Birds</i> , p. 19 (1840) .....	<i>M. novæ hollandiæ</i> .
<i>Phylidonyris</i> , <i>Lesson (pt.), Traité d'Orn.</i> i. p. 298 (1831) .....	<i>M. australasiana</i> .
<i>Lichmera</i> , <i>Cabanis, Mus. Heineanum</i> , i. p. 118 (1850) .....	<i>M. australasiana</i> .
<i>Melisymphotes</i> , <i>Reichenbach, Natürl. System d. Vögel (fide Gray's Hand-l. B.)</i> .....	<i>M. australasiana</i> .

Bill about as long as the rest of the head. Nostrils operculated, not covered with feathers. First primary comparatively long. Tip of wing formed by the third to sixth primaries. Quills internally edged with fulvous. Tail rounded, and a little longer than the wing.

*Range.* Australia.



<i>i.</i> ♂ ad. sk.	Tasmania.	Gould Collection.
<i>k.</i> [♂] ad. sk.	Tasmania.	Antarctic Expedition.
<i>l, m.</i> Ad. sk.	New South Wales.	Gould Collection.
<i>n.</i> Ad. st.	New South Wales.	J. Gould, Esq. [P.].
<i>o, p, q.</i> Ad. sk.	New South Wales.	F. D. Godman and O. Salvin, Esqrs. [P.].

2. *Meliornis novæ hollandiæ.*

- Certhia novæ hollandiæ*, *Lath. Ind. Orn.* p. 296, no. 49.  
 New Holland Creeper, *White's Journ.* p. 186; *Lath. Gen. Hist.* iv. p. 171; *Shaw's Gen. Zool.* viii. p. 225.  
*L'Héorotaire tacheté*, *Vieill. Ois. Dor.* ii. p. 91, pl. 57.  
*Melithreptus novæ hollandiæ*, *Vieill. Nouv. Dict.* xiv. p. 323 (1817); *id. Encycl. Méth.* ii. p. 606.  
*Meliphaga novæ hollandiæ*, *Vig. & Horsf. Linn. Trans.* xv. (1826), p. 311; *Gould, B. Austr.* iv. pl. 23; *Gray, Hand-l. B.* i. p. 158, no. 2054.  
*Meliphaga balgonera*, *Steph. Gen. Zool.* xiv. p. 261.  
*Meliphaga barbata*, *Swains. Classif. B.* ii. p. 326 (1836).  
*Meliornis novæ hollandiæ*, *Gray, List Gen. B.* p. 19 (1841); *Cab. Mus. Hein.* i. p. 117; *Bp. C. A. i.* p. 393; *Reichenb. Handb. Meropinae*, p. 124, pl. 491, figs. 3462-63; *Gould, Handb. B. Austr.* i. p. 486; *Ramsay, Proc. Linn. Soc. N.S. W.* ii. p. 188.

*Adult.* Crown and sides of head, including the ear-coverts and the chin, black; the feathers of the nasal region tipped with white; a stripe along the sides of the occiput and crown, the prolonged feathers behind the ear-coverts, and a large oval spot on the cheeks and another one on the sides of the neck white; feathers of occiput, hind neck, and mantle blackish brown, edged with whitish and brownish grey; lower back and upper tail-coverts more uniform greyish brown; wing-coverts, remiges, and tail blackish brown; the outer webs of the remiges and of the basal half of some of the tail-feathers golden yellow; most of the tail-feathers tipped with white; feathers of throat and fore neck rather hair-like and long, blackish brown towards the base and white towards the tip; rest of underparts pure white, with broad longitudinal streaks of blackish brown, especially on the breast; under wing-coverts and inner margin of quills pale buff or pale fulvous; "bill and feet black; iris white" (*Gould*).

The sexes are alike in plumage, but the female is smaller.

Ad. ♂. Culmen 0.75-0.85 inch, wing 2.9-3.1, tail 2.7-3.2, tarsus 0.8-0.85.

*Hab.* From the Wide-Bay district to New South Wales, Victoria, South Australia, and Tasmania.

<i>a.</i> Ad. st.	Tasmania.	Ronald Gunn, Esq. [P.].
<i>b, c.</i> Ad. sk.	Tasmania.	Antarctic Expedition.
<i>d.</i> ♂ ad. sk.	South Australia.	Sir George Grey [P.].
<i>e.</i> ♂ ad. st.	South Australia.	J. Gould, Esq. [C.].
<i>f, g.</i> Ad. sk.	South Australia.	Sir D. C. Cooper [P.].
<i>h.</i> ♂ ad. sk.	South Australia.	C. D. Fortnum, Esq. [P.].
<i>i.</i> ♂ ad. sk.	Murray River.	J. Gould, Esq. [C.].
<i>k.</i> Ad. sk.	New South Wales.	J. Gould, Esq. [C.].

l. ♂ ad. sk.	Queensland.	F. Nicholson, Esq. [P.].
m, n, o. Ad. sk.	Queensland ( <i>Cockerell</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].

Subspecies *α*. **Meliornis longirostris.**

*Meliphaga longirostris*, *Gould, P. Z. S.* 1846, p. 83; *id. B. Austr.* iv. pl. 24; *Gray, Hand-l. B.* i. p. 158, no. 2055.  
*Meliornis longirostris*, *Cab. Mus. Hein.* i. p. 117 (1850); *Bp. C. A.* i. p. 393; *Reichenb. Vög. Neuholl.* no. 347; *id. Handb. Meropinae*, p. 123, pl. 491, figs. 3460-61; *Gould, Handb. B. Austr.* i. p. 488; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 188.

*Adult.* Very similar to *M. novæ hollandiæ*, but the feathers of the white cheeks are a little longer and more hair-like; they consequently do not form a well-defined oval patch as in the other species. The bill as a rule is a little stronger and longer. Intermediate forms frequently occur in Southern Australia. Culmen 0·8-0·9 inch, wing 2·8-3·1, tail 2·9-3·2, tarsus 0·85.

*Hab.* Western Australia.

a. ♂ ad. st.	West Australia.	J. Gould, Esq. [C.].
b, c. Ad. sk.	West Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].
d. ♂ ad. sk.	West Australia.	Gould Collection.
e, f. [♀] ad. sk.	King George's Sound, April 1841 ( <i>Gould</i> ).	Sir George Grey [P.].
g. ♂ ad. sk.	Swan River.	J. Gould, Esq. [C.].

3. **Meliornis sericea.**

New Holland Creeper, female, *White's Journ.* pl. to p. 297.  
 L'Héorotaire noir, *Vieill. Ois. Dor.* ii. p. 106, pl. 71.  
*Meliphaga sericea*, *Gould, P. Z. S.* 1837, p. 144; *id. B. Austr.* iv. pl. 25; *Gray, Hand-l. B.* i. p. 158, no. 2056.  
*Meliphaga sericeola*, *Gould, P. Z. S.* 1837, p. 152 (female).  
*Meliornis sericea*, *Cab. Mus. Hein.* i. p. 117 (1850); *Bp. C. A.* i. p. 393; *Reichenb. Vög. Neuholl.* no. 565; *id. Handb. Meropinae*, p. 123, pl. 490, figs. 3458-59; *Gould, Handb. B. Austr.* i. p. 490; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 188.

This species is remarkable for the great development of the feathers of the cheeks; they form a broad fan-like shield of pure white on each side of the throat. The chin and throat are dull black; the white superciliary line begins on the sides of the occiput and extends to the white-tipped feathers of the fore neck; tail with narrow pale tips. In all other details this species resembles *M. novæ hollandiæ*. "Bill and feet black; iris dark brown" (*Gould*). Culmen 0·9-1 inch, wing 3-3·2, tail 2·8-3, tarsus 0·8.

*Hab.* From Queensland to New South Wales and Victoria; ? West Australia.

a. ♂ ad. st.	New South Wales.	J. Gould, Esq. [P.].
b, c, d, e. [♂ ♀] ad. sk.	New South Wales.	Gould Collection.

f. Ad. st.	East Australia.	F. G. Moore, Esq. [P.]
g. ♂ ad. sk.	Queensland ( <i>Cocke- rell</i> ).	F. D. Godman and O. Sal- vin, Esqrs. [P.]
h. ♂ ad. sk.	Moreton Bay, No- vember 1858.	Gould Collection.
i. Juv. sk.	West Australia.	J. Gould, Esq. [C.].

4. *Meliornis mystacalis*.

*Meliphaga mystacalis*, *Gould, P. Z. S.* 1840, p. 161; *id. B. Austr.* iv. pl. 26; *Gray, Hand-l. B.* i. p. 158, no. 2057.  
*Meliornis mystacalis*, *Cab. Mus. Hein.* i. p. 117 (1850); *Bp. C. A. i.* p. 393; *Reichenb. Handb. Meropinae*, p. 122, pl. 490. figs. 3456-57; *id. Vög. Neuholl.* no. 565; *Gould, Handb. B. Austr.* i. p. 491; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 188.

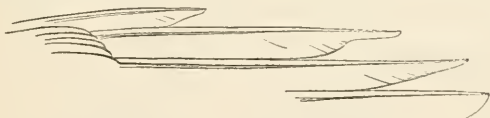
*Adult female.* Differs from *M. sericea* as follows:—The white feathers on the upper parts of the head are restricted to the long superciliary stripe, leaving the middle part of the forehead and base of the culmen black; the white elongated feathers of the cheeks include some of the ear-coverts, and terminate in a point towards the shoulder. Culmen 0.93 inch, wing 2.7, tail 2.6, tarsus 0.82.

*Hab.* Western Australia.

a. ♀ ad. sk.      Near Perth, West Australia.      J. Gould, Esq. [C.].

## 7. ANTHORNIS.

*Anthornis*, *Swains. Classif. B.* ii. p. 327 (1837) ..... A. melanura. Type.  
*Anthornis*, *Gray, List Gen. B.* p. 15 (1841) ..... A. melanura.



Primaries of *Anthornis melanura*.

Bill equal to the length of the head, slender and curved. Nostrils operculated, and not covered with feathers. First primary comparatively long. Tip of wing formed by the third to sixth primaries; second primary ending abruptly, narrowed towards the tip; secondaries slightly shorter. Tail emarginated, equal to the wings in length. Anterior toes short; tarsus covered with transverse scales.

*Range.* New Zealand and the Chatham Islands.

1. *Anthornis melanura*.

Mocking Creeper, *Lath. Gen. Syn.* ii. p. 735 (1782).  
*Certhia melanura*, *Sparrm. Mus. Carls.* pl. v. (1786).  
*Certhia sannio*, *Gm. Syst. Nat.* i. p. 471 (1788).  
*Philedon dumerilii*, *Less. Voy. Coq., Zool.* i. p. 644, pl. 21. fig. 2 (1826).

*Anthomyza cæruleocephala*, Swains. *Classif. B.* ii. p. 327 (1837).

*Philedon sannio*, Less. *Compl. Buff.* xi. p. 165 (1838).

*Anthornis melanura*, Gray, *List Gen. B.* p. 15 (1841); *id. Gen. B.* i. p. 123, pl. 39. fig. 5; *id. Hand-l. B.* i. p. 158, no. 2959; *Reichenb. Handb. Meropinae*, i. p. 100, pl. 465. figs. 3410-11; *Buller, B. New Zeal.* p. 91.

*Certhia olivacea*, Forster, *Descr. Anim.* p. 79 (1844).

*Anthornis ruficeps*, v. Pelz. *Verh. zool.-bot. Gesellsch. Wien*, 1867, p. 316; *Gray, Hand-l. B.* i. p. 158, no. 2062.

*Adult male.* Wings and tail black; all the rest of the upper and under parts uniform dull yellowish green, the yellow colour being more prevalent on the abdomen, flanks, and under tail-coverts, whilst the mantle and anterior half of the body are more inclined to olive; on the sides of the breast a few very fluffy feathers, which are pale yellow and somewhat longer than the others; under wing-coverts and inner margin of quills brown, the former washed with olive. In position B the head and neck all round show a very strong violet submetallic gloss. Bill and feet dark brown.

*Adult female.* General colour above olive-brown; crown only very faintly showing the violet gloss; underparts dingy fawn-colour, with a slight olive tinge; axillaries, middle of breast and abdomen, and the pectoral tufts whitish yellow; inner margin of quills and under wing-coverts very pale buff; part of the cheeks whitish.

*Young males* resemble the females, but have the breast and abdomen more yellowish, whilst the fore neck and chest are strongly washed with fawn-colour; cheeks whitish.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Ad. ♂ . . . . .	0·8-0·9	3·2-3·7	3·0-3·5	1·0-1·1
Ad. ♀ . . . . .	0·7	3·25	2·9	1·0
Ad. ♀ . . . . .	0·73	2·9	2·6	0·86

#### *Hab.* New Zealand.

<i>a.</i> Ad. st.	New Zealand.	Purchased.
<i>b, c.</i> Ad. sk.	New Zealand.	Purchased.
<i>d, e.</i> ♂ ♀ ad. sk.	New Zealand.	Gould Collection.
<i>f.</i> ♂ ad. sk.	New Zealand.	Sir George Grey [P.].
<i>g.</i> ♀ ad.; <i>h.</i> Imm. sk.	New Zealand.	Henry Wharton, Esq. [P.].
<i>i, k.</i> ♂, <i>l.</i> ♀ ad. sk.	New Zealand.	Captain Stokes [P.].
<i>m.</i> ♀ ad. sk.	New Zealand.	Antarctic Expedition.
<i>n.</i> [♂] ad. sk.	Bay of Islands.	Antarctic Expedition.
<i>o, p.</i> ♂ ♀ ad. sk.	Auckland Islands.	Antarctic Expedition.

## 2. *Anthornis melanocephala*.

*Anthornis melanocephala*, Gray, *in Dieff. Trav.* ii. *App.* p. 188 (1843);

*id. Gen. B.* i. p. 123; *id. Hand-l. B.* i. p. 158, no. 2060; *Reichenb.*

*Handb. Meropinae*, pl. 465. fig. 3409; *Buller, B. New Zeal.* p. 96.

*Anthornis auriocula*, Buller, *Essay Orn. New Zeal.* p. 8 (1865); *Gray, Hand-l. B.* i. p. 158, no. 2061.

Like *A. melanura* in coloration, but considerably larger; head



and neck, especially the crown, strongly washed with metallic purple; bill black; feet brown; iris golden yellow. Culmen 0·9 inch, wing 4·2, tail 4·6, tarsus 1·5.

*Hab.* Chatham Islands.

a. ♂ ad. sk. Chatham Islands. New Zealand Co. [P.]  
(Type of species.)

## 8. PROSTHEMADERA.

Type.

Prosthemadera, *Gray, List of Genera of Birds*, p. 3  
(1840)..... P. novæ zealandiæ.

Bill slightly longer than rest of head; culmen curved; operculum partly covered with feathers. First primary longer than half the second. Tip of wing formed by primaries 4, 5, 6. Tail slightly rounded and, like the secondaries, equalling five sixths of the wing in length. Tarsus comparatively short, scutellated in front. Plumage black, glossy, peculiar. Length of wing 5-6 inches.

*Range.* New Zealand.

1. *Prosthemadera novæ zealandiæ*.

New Zealand Creeper, *Brown, Illustr. Zool.* pl. ix. (1776).

Poë Bee-cater, *Lath. Gen. Syn.* ii. p. 682 (1782).

Merops novæ seelandiæ, *Gm. S. N. i.* p. 464 (1788).

Merops circinnatus, *Lath. Ind. Orn. i.* p. 275 (1790).

La Cravate frisée, *Levaill. Ois. d'Afr.* ii. pl. 92 (1800).

Sturnus crispicollis, *Daud. Traité d'Orn.* ii. p. 314 (1800).

Philemon circinnatus, *Bonn. et Vieill. Enc. Méth.* p. 613 (1823).

Prosthemadera circinnata, *Gray, List Gen. B. p.* 3 (1840).

Certhia circinnata, *Forst. Descr. Anim.* p. 78 (1844).

Prosthemadera circinata, *Reichenb. Handb. Meropinae*, p. 127, fig. 3466  
(1852).

Meliphaga novæ zealandiæ, *Ellmann, Zoologist*, 1861, p. 7466.

Lamprotornis novæ zealandiæ, *Schlegel, Jaarboek Gesellsch. Nat. Art. Mag.* 1865.

Prosthemadera novæ seelandiæ, *Cab. Mus. Hein.* i. p. 119; *Bp.*

*C. A.* i. p. 391; *Gray, Gen. B. i.* p. 122, pl. 39, fig. 3; *id. Hand-l.*

*B. i.* p. 158, no. 2058.

Prosthemadera novæ sealandiæ, *Buller, Birds New Zeal.* p. 87, pl. 11.

*Adult.* About a dozen feathers on the sides of the throat very long and filamentous, pure white, and curled in upon each other, so as to form two large globes on the fore neck; the feathers of the sides of the neck, and especially those of the hind neck, also long and filamentous, but narrow and soft, more or less lanceolate in shape, with narrow white shaft-streaks. General colour of the head and neck all round, and the chest, the wings, the tail, the upper and under tail-coverts, and the edge of the wing metallic black in position A, bluish green in position B, changing into purplish blue in position C; mantle and back, breast, abdomen, and flanks dark brown, with a strong metallic coppery greenish gloss, especially on the upper parts; inner margin of quills and under

wing-coverts black; the median wing-coverts pure white at their terminal half, thus forming a conspicuous band across the shoulders; "bill and feet blackish brown; iris dark brown" (*Buller*).

The *female* resembles the male, but is slightly less metallic and smaller.

*Young birds.* "Uniform black, with a broad undefined patch or circle of greyish white on the throat, varying in extent and sometimes spreading all round the neck; median wing-coverts white, as in the adult; iris black; rectal membrane yellow." (*Buller*.)

Ad. ♂. Culmen 1.2-1.35 inch, wing 5.5-6.5, tail 5-5.5, tarsus 1.5-1.65.

Ad. ♀. Culmen 1.1 inch, wing 5, tail 4.6, tarsus 1.4.

*Hab.* New Zealand and Auckland Islands.

a. ♂; b, c. ♀ ad. sk.	New Zealand.	New Zealand Co. [P.].
d. ♂ ad. sk.	New Zealand.	Capt. Stokes [P.].
e. ♀ ad. st.	New Zealand.	Capt. Stokes [P.].
f, g. ♂ ♀ ad. sk.	New Zealand ( <i>Ant- arctic Exped.</i> ).	The Admiralty [P.].
h, i. [♂] ad. sk.	New Zealand.	Sir George Grey [P.].
k. ♂ ad. sk.	New Zealand.	Sir E. Home [P.].
l, m. Ad. sk.	New Zealand.	Miss R. Stone [P.].
n, o. ♂ ♀ ad. sk.	New Zealand.	F. D. Godman and O. Sal- vin, Esqrs. [P.].
p. Juv. sk.	New Zealand.	E. Wilson, Esq. [P.].
q, r. ♀ ad.; s. ♀ imm. sk.	Auckland Islands.	Antarctic Expedition [P.].
t. Ad. st.	New Zealand.	Purchased.

## 9. MANORHINA.

	Type.
Manorina, <i>Vieill. Nouv. Dict.</i> xix. p. 236 (1818) . . .	M. melanophrys.
Manorhina, <i>Vieill. Galerie des Ois.</i> pl. 149 (1825) . .	M. melanophrys.
Myzantha, <i>Vig. &amp; Horsf. Linn. Trans.</i> xv. p. 319 (1826) . . . . .	M. garrula.
Manorrhina, <i>Reichenb. Syst. Av.</i> pl. 35 (1850) . . . . .	M. garrula.



Head of *Manorhina garrula*.

Bill equal to (*Myzantha*) or a little shorter than the rest of the head; laterally compressed and high (*Manorhina*), or slightly curved and serrated (*Myzantha*). Nostrils operculated and partly beset with feathers. First primary comparatively long. Tip of wing formed by the third to fifth primaries. Secondaries four fifths (*Manorhina*) or two thirds (*Myzantha*) the length of the wing. Tail rounded, slightly shorter (*Manorhina*) or slightly longer than wing

(*Myzantha*). Anterior toes and claws short, especially the outer toe. Tarsus short, covered with many scales, which are sometimes fused. Postocular region bare of feathers.

In spite of the differences mentioned above, the genus *Myzantha* is only subgenerically distinct from *Manorhina*, and is here united to it.

Range. Australia.

### Key to the Species.

- a. General colour of plumage olive-green above; underparts yellowish . . . . . *melanophrys*, p. 259.  
 b. Mantle brownish grey; abdomen white.  
 a'. Rump and upper tail-coverts like rest of back.  
 a''. Forehead whitish, crown black . . . . . *garrula*, p. 260.  
 b''. Forehead and crown grey . . . . . *obscura*, p. 260.  
 b'. Rump and upper tail-coverts white . . . . . } *flavigula*, p. 261.  
 { *lutea*, p. 262.

### 1. *Manorhina melanophrys*.

- Turdus melanophrys*, *Lath. Ind. Orn. Suppl.* p. xlii.  
*Manorhina viridis*, *Bonn. et Vieill. Enc. Méth.* pt. ii. p. 692; *Vieill. Gal. des Ois.* pl. 149; *Jard. & Selby, Ill. Orn.* ii. pl. 78.  
*Manorhina viridis*, *Vieill. Gal. des Ois.* pl. 149.  
*Myzantha flavirostris*, *Vig. & Horsf. Linn. Trans.* xv. p. 319 (1826).  
*Myzantha melanophrys*, *Gould, B. Austr.* iv. pl. 80; *Digges, Orn. Austr.* text.  
*Manorhina melanophrys*, *Bp. C. A.* i. p. 395; *Gould, Handb. B. Austr.* i. p. 579; *Gray, Hand-l. B.* i. p. 160, no. 2094; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 191.

*Adult.* All the upper parts uniform yellowish olive-green; wings and tail brown, the latter and the secondaries strongly washed with yellowish olive; primaries with slightly paler edges; under surface of tail-feathers with a peculiar strong yellow gloss; under wing-coverts and under surface of quills brownish grey; all the rest of the underparts dull greenish yellow; cheeks, eyelids, a few feathers above the eye, and some of the nasal plumes dull blackish; lores and præocular region rather bright yellow; "bill and feet yellow; eye brownish, eyelash leaden grey; bare space below and behind the eye orange-red" (*Gould*). Culmen 0·7 inch, wing 3·5-3·8, tail 3-3·4, tarsus 0·8-0·9.

*Young birds* are like adults, but have the yellow in front of the eye less developed.

*Hab.* Victoria and New South Wales to the Wide-Bay district.

- |                  |                                  |  |
|------------------|----------------------------------|--|
| a. Ad. sk.       | New South Wales.                 | Purchased.                               |
| b. Ad. st.       | New South Wales.                 | J. Gould, Esq.                           |
| c, d. ♂ ad. sk.  | New South Wales.                 | Gould Collection.                        |
| e, f, g. Ad. sk. | Queensland ( <i>Cockerell</i> ). | F. D. Godman and O. Salvin, Esqrs. [P.]. |
| h. [♂] ad. sk.   | Australia.                       | Linnean Society [P.].                    |

(Type of *M. flavirostris*, *Vig. & Horsf.*)

2. *Manorhina garrula*.

*Merops garrulus*, *Lath. Ind. Orn. Suppl.* p. xxiv.

*Gracula melanocephala*, *Lath. Ind. Orn. Suppl.* p. xxviii.

*Philemon garrulus*, *Vieill. N. Dict.* xxvii. p. 427 (1818).

*Myzantha garrula*, *Vig. & Horsf. Linn. Trans.* xv. p. 319; *Gould, B. Austr.* iv. pl. 76; *id. Handb. B. Austr.* i. p. 574; *Digges, Orn. Austr.* pl.; *Reichenb. Handb. Meropineæ*, p. 129, pl. 494. figs. 3476-77; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 191.

*Manorhina melanocephalus*, *Wagler, Syst. Av.*, *Manorhina*, sp. 1.

*Manorhina garrula*, *Gray, Gen. B.* i. p. 127, pl. 38. fig. 7 (1847); *id. Hand-l. B.* i. p. 160, no. 2095; *Cab. Mus. Hein.* i. p. 120; *Bp. C. A.* i. p. 395.

*Adult.* The forehead, loreal and præocular regions, and part of cheeks greyish white; crown of head dull black; ear-coverts and part of the sides of the upper throat black with silky gloss; all the upper parts light greyish brown; the feathers of the hind neck with a narrow subterminal margin of whitish; mantle slightly, most of the webs of the secondaries strongly, washed with olive-yellow; rest of wings brown, the primaries with whitish margins towards their tips; tail greyish brown, the terminal third inclining to brownish white; angle of chin lemon-yellow; an indistinct longitudinal streak down the centre of the upper throat dusky grey; rest of underparts of the body greyish white; feathers of the fore neck and breast with a narrow subterminal crescent-shaped mark of dusky brown; under wing-coverts, axillaries, and flanks pale greyish brown; inner margin of quills white; "iris dark hazel; naked space beneath the eye, bill, and feet yellow" (*Gould*).

*Young and immature* birds resemble the adult, but have the white subterminal bars on the feathers of the upper parts much more pronounced.

Ad. ♂. Culmen 0·9-1·1 inch, wing 5·5-6·0, tail 5·6, tarsus 1·3.

Ad. ♀. " 0·9-1·0 " " 5·1-5·5, " 5·0, " 1·1-1·25.

*Hab.* From the Wide-Bay district to New South Wales, Southern Australia, and Victoria; Tasmania.

a. [♂] ad. sk.	Melbourne.	Gould Collection.
b. ♂ ad. sk.	South Australia.	Sir George Grey [P.].
c. [♂] ad. sk.	New South Wales.	Gould Collection.
d. Ad. st.	New South Wales.	Purchased.
e. Ad. st.	New South Wales.	Maj.-Gen. Hardwicke [P.].
f, g. Ad. sk.	Queensland ( <i>Cockerell</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].
h, i, k. Ad. ;	Tasmania.	J. B. Jukes, Esq. [P.].
l. ♀ ad. sk.		
m. Ad. sk.	Tasmania, October 29,	Gould Collection.
	1843.	

3. *Manorhina obscura*.

*Myzantha obscura*, *Gould, P. Z. S.* 1840, p. 159; *id. B. Austr.* iv. pl. 77; *id. Handb. B. Austr.* i. p. 576; *Reichenb. Handb. Meropineæ*, p. 129, pl. 494. figs. 3474-75; *id. Vög. Neuholl.* no. 78; *Digges, Orn. Austr.* text; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 191.

*Manorhina obscura*, *Gray, Gen. B. i. p. 127 (1847); Cab. Mus. Hein. i. p. 120; Bp. C. A. i. p. 395; Gray, Hand-l. B. i. p. 161, no. 2097.*

*Adult.* Region behind the eye and lower border of base of mandible naked and of a yellow colour; forehead and nasal region, a few feathers at the sides of the base of the mandible, the angle of the chin, and the tips of a few feathers on the sides of the neck wax-yellow; præocular region and ear-coverts silky black; all the rest of the plumage very much as in *M. garrula*, but the feathers of the mantle, entire back, hind neck, and crown greyish brown, each feather being broadly margined with grey; rump and upper tail-coverts whitish brown; tail brown, with small whitish tips, the outer webs strongly edged with wax-yellow; throat dull grey; the feathers of the fore neck and breast with a crescent-shaped subterminal patch of brown, and tipped with greyish white; abdomen and under tail-coverts dull white, as in *M. garrula*; inner web of quills without lighter margins; "bare skin round the eye and bill bright yellow; legs and feet dull reddish yellow; claws dark brown" (*Gould*). Culmen 1 inch, wing 5·3, tail 4·5, tarsus 1·25.

*Young* birds have the sides of the head and the throat washed with fulvous.

*Hab.* Western Australia.

<i>a.</i> Imm. sk.	West Australia.	Gould Collection.
<i>b.</i> Ad. sk.	West Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].

#### 4. *Manorhina flavigula*.

*Myzantha flavigula*, *Gould, P. Z. S. 1839, p. 143; id. B. Austr. iv. pl. 79; id. Handb. B. Austr. i. p. 578; Reichenb. Handb. Meropinae, p. 130, pl. 495, figs. 3480-81; Ramsay, Proc. Linn. Soc. N. S. W. ii. p. 191.*

*Manorhina flavigula*, *Gray, Gen. B. i. p. 127; Bp. C. A. i. p. 395; Gray, Hand-l. B. i. p. 161, no. 2098.*

This species closely resembles *M. obscura* in general coloration, differing from it chiefly as follows:—Cheeks, throat, lower rump, and upper tail-coverts white, instead of grey or brownish; the tail largely tipped with white; ear-coverts washed with silky white, and the yellow on the sides of the neck more developed than in *M. obscura*, whilst on the fore neck and chest the white colour is predominant, the brownish subterminal bars being only faintly developed; inner web of remiges with narrow whitish edges. Culmen 0·8-0·9 inch, wing 4·8-5·5, tail 4·3-4·7, tarsus 1·1.

*Hab.* From New South Wales to South Australia; Gulf of Carpentaria.

<i>a.</i> Ad. sk.	South Australia.	Sir T. Mitchell [P.].
<i>b.</i> Ad. sk.	South Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>c.</i> Ad. sk.	New South Wales.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>d.</i> ♂ ad. st.	New South Wales.	Maj.-Gen. Hardwicke [P.].
<i>e.</i> Ad. sk.	River Darling.	J. Gould, Esq. [C.].

Subspecies *a*. *Manorhina lutea*.

*Myzantha lutea*, *Gould*, *P. Z. S.* 1839, p. 144; *id. B. Austr.* iv. pl. 78; *id. Handb. B. Austr.* i. p. 577; *Diggle*, *Orn. Austr.* text; *Reichenb. Handb. Meropinae*, p. 130, pl. 495. figs. 3478-79; *id. Vög. Neuholl.* no. 77; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 191.

*Manorhina lutea*, *Gray, Gen. B.* i. p. 127; *Bp. C. A.* i. p. 395; *Gray, Hand-l. B.* i. p. 161, no. 2096.

*Adult.* Closely allied to *M. flavigula*, but slightly brighter coloured and larger; rump, upper tail-coverts, and underparts creamy white; the feathers of the fore neck and chest edged with grey, each feather with an arrow-shaped mark of brown; the wax-yellow on the forehead and on the sides of the neck perhaps a little more developed, whilst the mantle and back are more brownish grey or paler than in *M. flavigula*. Wing 5·8 inches, tail 5·25. (*Gould*.)

*Hab.* West Australia.

*a, b.* Ad. sk.

West Australia.

J. Gould, Esq.

## 10. ACANTHOCHÆRA.

Type.

Creadion, *Bonn. et Vieill. Enc. Méth.* ii. p. 873 (*partim*) (1823)

Acanthochæra, *Fig. & Horsf. Trans. Linn. Soc.* xv.

p. 320 (1826) ..... *A. mellivora*.

Creadion, *Less. Traité d'Orn.* i. p. 359 (1837) ..... *A. carunculata*.

Anthochæra, *Gould et auct. plurim.*

Acanthogenys, *Gould, P. Z. S.* 1837, p. 146. .... *A. rufigularis*.

Acanthogenys, *Gray, List Gen. B.* (1840).

Anellobia, *Cub. Mus. Hein.* i. p. 120 (1850) ..... *A. mellivora*.

Melichæra, *Reichenb. Handb. spec. Orn.* i. p. 152 (1852) *A. lunulata*.

Bill of about the same length as rest of head, curved; culmen ridged. Nostrils longitudinal, operculated. First primary long. Tip of wing formed by primaries 4, 5, 6. Tail of nearly the same length as the wing, and graduated or much rounded. Tarsi scutellated in front and comparatively short. Principal colours grey and brown, with white and yellowish; sometimes with wattles, or with bare cheeks. Length of wing from 5·1 to 7 inches.

This genus is intermediate between *Ptilotis*, *Melitograis*, and *Leptornis*.

*Range.* Australia.

*Key to the Species.*

*a.* Wattles on sides of gape. Tail strongly graduated, longer than wing; feathers of breast lanceolate.

(Subgenus ACANTHOCHÆRA.)

*a'*. Length of wattles less than 0·5 inch ..... *carunculata*, p. 263.

*b'*. Length of wattles more than 1 inch ..... *inauris*, p. 263.

*b.* No wattles. Tail equal to, or shorter than, wing.

*c'*. Tail strongly graduated. (Subgenus ANELLO-

LOBIA.)

*a''*. Feathers of mantle with white central streaks *mellivora*, p. 264.

- b''*. No white streaks to feathers of mantle . . . . *lunulata*, p. 265.  
*d'*. Tail square, equal to wing. (Subgenus ACANTHOCHÆRA.) . . . . . *rufingularis*, p. 265.

### 1. *Acanthochæra carunculata*.

- Merops carunculatus*, *Lath. Ind. Orn.* i. p. 276 (1790).  
*Corvus paradoxus*, *Lath. Ind. Orn. Suppl.* p. 26 (1801).  
*Corvus carunculatus*, *Shaw, Gen. Zool.* vii. p. 378 (1800-26).  
 Pie à pendeloques, *Daud. Orn.* ii. p. 246, pl. 16.  
 Wattled Crow, *Lath. Gen. Syn. Suppl.* ii. p. 119.  
 Wattled Bee-eater, *Lath. ibid.* p. 150.  
*Creadion carunculatus*, *Bonn. et Vieill. Encyc. Méth.* ii. p. 874 (1823);  
*Vieill. Gal. Ois.* i. pl. 94; *Lesson, Traité d'Orn.* i. p. 359.  
*Anthochæra lewini*, *Fig. & Horsf. Trans. Linn. Soc.* xv. p. 322,  
 note.  
*Anthochæra carunculata*, *Gould, B. Austr.* iv. pl. 55; *Bp. C. A.* i.  
 p. 389; *Cab. Mus. Hein.* i. p. 120; *Gould, Handb. B. Austr.* i.  
 p. 538; *Diggle, Orn. Austr.* pl.; *Gray, Hand-l. B.* i. p. 158,  
 no. 2063; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190.

*Adult.* Very closely resembling *A. inauris* in the pattern of coloration, although each of the brown and white feathers is the exact reverse in pattern to those of the other species. It differs from the latter as follows:—The ear-wattle is less than half an inch in length; the forehead and part of the crown are uniform blackish brown, with hardly any pale central streaks; the feathers of the hind neck, mantle, and whole back are greyish brown, each feather with a conspicuous white central streak; upper tail-coverts brown, with broad white margins; centre of breast and abdomen bright yellow; the feathers of the rest of the underparts of the body are white, broadly margined on each side with pale brown; throat uniform with the rest of the fore neck, not differing from the latter as in the other species; loreal and subocular regions silky white; base of mandible dull brown; “iris bright hazel-red; feet brownish flesh-colour; inside of mouth yellow” (*Gould*).

Ad. ♂. Culmen 1·1–1·3 inch, wing 6·0–6·4, tail 7·0–7·5, tarsus 1·3.  
 Ad. ♀. „ 1·1 „ „ 5·2–5·8, „ 6·0, „ 1·25.

*Hab.* From the Wide-Bay district to New South Wales, Victoria, and South Australia; Tasmania.

<i>a, b.</i> ♂ ad. sk.	S. Australia.	Sir George Grey [P.].
<i>c.</i> Ad. sk.	S. Australia.	Sir D. C. Cooper [P.].
<i>d.</i> Ad. sk.	Australia.	Gould Collection.
<i>e, f, g, h.</i> ♂ ♀ ad. sk.	S.E. Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].
<i>i.</i> Ad. st.	N. S. Wales.	J. Gould, Esq. [C.].

### 2. *Acanthochæra inauris*.

- Anthochæra carunculata*, *Fig. & Horsf. Trans. Linn. Soc.* xv. p. 321.  
*Creadion carunculatus*, *Bonn. et Vieill. Enc. Méth.* ii. p. 874 (1823,  
 pt.); *Vieill. Gal. Ois.* i. pl. 94 (1825).

*Anthochaera inauris*, *Gould, B. Austr.* iv. pl. 54; *id. Handb. B. Austr.* i. p. 436; *Cab. Mus. Hein.* i. p. 120; *Bp. C. A.* i. p. 389; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190.

*Adult.* Crown of head and hind neck dark brown, each feather with a broad greyish-white margin; wing-coverts and mantle dark brown, with greyish edges and whitish shafts; rump and upper tail-coverts brownish grey; greater wing-coverts and remiges blackish brown, externally edged with greyish white; central pair of tail-feathers brownish grey, the others blackish brown with large white tips; the lores and the subocular region covered with very small feathers, which are blackish at their bases and whitish at their tips; supercilium, cheeks, upper throat, and a patch on each side of the neck white; centre of breast and abdomen bright yellow; the feathers of the chest, breast, and under wing-coverts dull white, with broad brown subterminal patches; flanks, under tail-coverts, and thighs brownish white; inner margin of quills isabelline; the feathers of the throat and fore neck lanceolate, blackish at base, whitish at their terminal half, and with a silky white subterminal patch; the bare region between the eye and ear orange-yellow, like the long pendulous wattle into which the skin beneath the ear-opening is transformed; "bill black; iris black-brown; feet light flesh-colour; claws black" (*Gould*). Culmen 1-1.1 inch, wing 6.2-7, tail 8-9, tarsus 1.6. The ear-wattle is about one inch or more in length.

*Hab.* Tasmania.

<i>a.</i> ♂ ad. st.	Tasmania.	Purchased.
<i>b, c.</i> Ad. sk.	Tasmania.	Antarctic Expedition.
<i>d.</i> Ad. sk.	Tasmania.	Antarctic Expedition.
<i>e.</i> Ad. sk.	Tasmania.	F. D. Godman and O. Salvin, Esqrs. [P.].

### 3. *Acanthochæra mellivora*.

*Certhia mellivora*, *Lath. Ind. Orn. Suppl.* p. xxxvii (1801).

Goruck Creeper, *Shaw, Gen. Zool.* viii. p. 243.

Mellivorous Creeper, *Lath. Gen. Syn. Suppl.* ii. p. 166.

*Merops chrysopterus*, *Lath. Ind. Orn. Suppl.* p. xxxiii.

Mellivorous Honey-eater, *Lath. Gen. Hist.* iv. p. 161.

*Anthochaera mellivora*, *Fig. & Horsf. Linn. Trans.* xv. p. 321 (1826);

*Gould, B. Austr.* iv. pl. 56; *Bp. C. A.* i. p. 389; *Diggles, Orn. Austr.* pl.; *Gray, Hand-l. B.* i. p. 159, no. 2065.

*Anellobia mellivora*, *Cab. Mus. Hein.* i. p. 120 (1850); *Gould, Handb.*

*B. Austr.* i. p. 541; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190.

*Melichæra mellivora*, *Reichenb. Handb. spec. Orn.* p. 130.

*Adult.* All the upper parts, including the head, blackish brown, each feather with the shaft and small tip white, and towards the margin washed with olive-grey; wings and tail dark brown; most of the primaries and tail-feathers with white tips; secondaries and central tail-feathers washed with olive-grey; basal half or two thirds of the inner web of the primaries rich fulvous; all the underparts



mottled with white and dark brown, the white becoming more prevalent on the abdomen, flanks, and under tail-coverts; the feathers of the chest and sides of the neck lanceolate with a white central streak, those of the throat dull blackish brown with triangular subterminal whitish spots; axillaries uniform whitish; bill black; iris grey; feet vinous brown; ear-coverts and sides of head inclining to silky white. Culmen 1.1–1.2 inch, wing 5.1–5.6, tail 5.5–6.8, tarsus 1.05–1.2.

Sexes and young birds are alike in plumage.

*Hab.* Tasmania; and Australia, from the Wide-Bay district to New South Wales and South Australia.

a. ♀ ad. sk.	South Australia.	Sir George Grey [P.].
b. Ad. sk.	South Australia.	Gould Collection.
c. Ad. sk.	N. S. Wales.	Gould Collection.
d, e. Ad. sk.	Queensland ( <i>Cockerell</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].
f, g. Ad. sk.	Tasmania.	Ronald Gunn, Esq. [P.].
h. Ad. st.	Australia.	Major-Gen. Hardwicke [P.].

#### 4. *Acanthochæra lunulata*.

*Anthochæra lunulata*, *Gould, P. Z. S.* 1837, p. 153; *id. B. Austr.* iv. pl. 57; *Bp. C. A.* i. p. 389.

*Anellobia lunulata*, *Cab. Mus. Hein.* i. p. 120 (1850); *Gould, B. Austr.* iv. pl. 57; *id. Handb. B. Austr.* i. p. 543; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190.

*Melichæra lunulata*, *Reichenb. Handb. spec. Orn.* p. 132.

*Adult.* Differs from *A. mellivora* in the following points:—The feathers of the head, hind neck, and mantle are without the white central streaks; the ear-coverts and sides of the neck are glossy silky white; inner web of primaries rich rusty brown, inclining to pale chestnut; “iris light hazel; bill blackish brown; feet yellowish grey” (*Gould*). Culmen 1.25 inch, wing 5.3, tail 6, tarsus 1.1.

The *female*, according to *Gould*, is considerably smaller than the male.

*Hab.* Western Australia.

a. Ad. sk.	West Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].
b. Ad. st.	West Australia.	J. Gould, Esq. [C.].

#### 5. *Acanthochæra rufigularis*.

*Acanthogenys rufigularis*, *Gould, P. Z. S.* 1837, p. 153.

*Meliphaga rufogularis*, *Gray, Gen. B.* i. p. 122 (1847).

*Acanthogenys rufogularis*, *Gould, B. Austr.* iv. pl. 53; *Bp. C. A.* i. p. 391; *Gray, Hand-l. B.* i. p. 159, no. 2072; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190.

*Acanthogenys rufigularis*, *Gould, Handb. B. Austr.* i. p. 534.

*Adult male.* Crown of head, hind neck, mantle, and back dark

brown, each feather broadly margined with brownish grey; feathers of the rump and the upper tail-coverts, breast, flanks, abdomen, and under tail-coverts dirty yellowish white, each feather with a longitudinal, broad, central streak of dark brown, darkest on the breast, more diffused on the upper tail-coverts; wings dark brown, the innermost secondaries and the wing-coverts margined with whitish, rest of the secondaries and some of the primaries with yellowish margins: a subocular line, upper half of the ear-coverts, and part of the sides of the neck blackish brown: rest of the sides of the neck white or yellowish white, each feather with a sharply marked blackish-brown central streak; the bristle-like feathers on the cheeks and beneath the ear-coverts white; chin, throat, fore neck and upper chest, edge of wing, under wing-coverts, and inner margin of quills rufous buff or fulvous; tail dark brown, with large white tips: the bare part of the face (viz. the part between the eye and the cheeks) and base of the bill soft, pulpy, and of a pinky flesh-colour; iris bluish lead-colour; feet olive.

The *female* resembles the male exactly in coloration, but is smaller in size.

*Young birds* are like the female, but want the bristles on the cheeks.

Ad. ♂. Culmen 0.9-1 inch, wing 4.4-4.7, tail 4.4-4.8, tarsus 1.0.

Ad. ♀. " 0.9 " " 4.2-4.4, " 4.1, " 0.95.

*Obs.* Half the number of the specimens examined by me have the terminal half of the bristles on the cheeks and ear-coverts foxy yellow; this cannot, however, be a sexual character, as it is independent of size and age.

*Hab.* From New South Wales to South and West Austral.

<i>a.</i> Ad. sk.	South Australia.	Sir T. Mitchell [P.].
<i>b, c, d, e.</i> [♂ ♀] ad. sk.	South Australia.	Capt. Sturt [P.].
<i>f.</i> Ad. st.	South Australia.	Sir George Grey [P.].
<i>g.</i> Ad. sk.	Port Lincoln.	Sir George Grey [P.].
<i>h.</i> ♂ ad. sk.	N. S. Wales.	Gould Collection.
<i>i, k, l.</i> Ad. sk.	South Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].

## 11. LEPTORNIS.

Type.

Leptornis, *Homb. et Jacq. Voyage Pôle Sud, Ois.* pl. 17.

fig. 1 ..... L. samoensis.

Philedon (pt.), *Reichenbach, Handbuch spec. Orn.* i.

p. 141 (1852).

Bill longer than the rest of head and slender. First primary long. Tip of wing formed by primaries 4-6. Tail slightly rounded, nine tenths of the length of the wing. Tarsus scutellated in front and comparatively long. Plumage soft and very plain, dusky or dull yellowish olive. Length of wing 5-7.2 inches.

*Range.* Polynesia.

1. *Leptornis samoensis*.

*Merops samoensis*, *Hombr. et Jacq. Ann. Sci. Nat. Paris*, 1841, p. 314.

*Entomiza?* *olivacea*, *Peale, U. S. Expl. Exped., Mamm. & Ornith.* p. 145 (1848).

*Leptornis sylvestris*, *Hombr. et Jacq. Voy. Pôle Sud, Ois.* pl. 17, fig. 1 (1853); *Jacq. et Puch. Voy. Pôle Sud*, iii. p. 86 (1853).

*Philedon leptornis*, *Reichenb. Handb. spec. Ornith.* i. p. 141, pl. 504, fig. 3517 (1852).

*Leptornis samoensis*, *Cassin, U. S. Expl. Exp.* p. 172, *Atlas Ornith.* pl. xi, fig. 2 (1858).

*Anthochaera samoensis*, *Gray, Hand-l. B.* i. p. 159, no. 2068.

*Adult.* Ground-colour of the upper and under parts olive-brown, inclining to sooty brown on the breast and fore neck; all the upper and under parts strongly washed with dull olive; outer webs of wings and tail more inclining to olive-yellow; head and neck all round darker than the rest of the body, being almost black with only a slight olive tinge, except the ear-coverts and stripe beneath the eye, which are olive; under wing-coverts, under surface of quills, thighs, and under tail-coverts brown; "iris pale lead-colour" (*Peale*), "dark reddish brown" (*Gräffe*); bill, feet, and claws black; soles yellow. Culmen 1.4-1.6 inch, wing 5-5.9, tail 5-6, tarsus 1.55-1.7.

The smaller measurements refer to the female, which otherwise resembles the male.

*Hab.* Samoa Islands.

a. [♂]	ad. sk.	Samoa Islands.	Rev. S. J. Whitmee [C.].
b. [♂]	ad. sk.	Samoa Islands.	J. Gould, Esq.
c. [♀]	ad. sk.	Samoa Islands.	

2. *Leptornis aubryanus*.

*Leptornis aubryanus*, *Verr. et Des Murs, Rev. et Mag. Zool.* 1860, p. 432; *Jouan, Mém. Cherbourg*, 1863, xx. p. 221; *Gray in Brenchley's Cruise*, p. 364, pl. iv.; *Layard, P. Z. S.* 1876, p. 492; *Whitmee, Ibis*, 1875, p. 438; *Layard, Ibis*, 1877, p. 362, 1878, p. 257, 1881, p. 133, 1882, p. 506.

*Anthochaera aubryanus*, *Gray, Hand-l. B.* i. p. 159, no. 2069.

*Adult.* Region round the eye and the space above and in front of the ear-opening bare of feathers; the skin of the anterior margin of the ear-opening drawn out into a broad and flat pouch, on the inside of which arise the ear-coverts; all the upper and under parts dull black, inclining to brownish black on the wings. "Bill black above, whitish below; feet yellow-brown; iris yellow." Culmen 1.9 inch, wing 7.1, tail 7.1, tarsus 2.

*Obs.* One of the specimens in the collection of the British Museum has a few pale yellow feathers on the lower and posterior margin of the ear-opening.

*Hab.* New Caledonia.

a. ♂	ad. st.	New Caledonia.	Purchased.
b. ♂	juv. sk.	Dombea, New Caledonia.	E. L. Layard, Esq. [C.].

3. *Leptornis viridis*.

Tatare? *viridis*, *Layard*, *P. Z. S.* 1875, pp. 150, 432.

*Leptornis viridis*, *Salvad. Ibis*, 1876, p. 507.

General colour of the upper and under parts uniform olive-green; inner web of remiges dark brown, with pale isabelline edges; sub-ocular region yellow; shafts of wing- and tail-feathers black above, yellow below; "bill and feet light orange, claws dark horn-colour" (*Layard*). Culmen 1.4 inch, wing 5.2, tail 4.8, tarsus 1.45.

*Hab.* Fiji Islands.

a. Ad. sk. Taviuni, Fiji (*Layard*). F. D. Godman and O. Salvin, Esqrs. [P.]. (Type of species.)

## 12. ENTOMYZA.

Type.

*Entomyzon*, *Swainson*, *Classif. B.* ii. p. 328 (1837) . . . . . *E. cyanotis*.

*Entomiza*, *Swains. Classif. Birds*, ii. p. 328 (1837) . . . . . *E. cyanotis*.

Bill equal to rest of head in length, curved. Nostrils quite bare, pervious, formed by a round opening in front of the membranous part. First primary longer than half the second. Tip of wing formed by primaries 3-6. Tail rounded, seven eighths, secondaries three fourths of the length of the wing. Tarsus scutellated, comparatively short. Sides of head quite bare and dark coloured. Pattern of plumage bright, but still following the same general principle as in *Philemon*, to which this genus is most closely allied. Length of wing 5-6 inches.

*Range.* Australia.

1. *Entomyza cyanotis*.

*Gracula cyanotis*, *Lath. Ind. Orn. Suppl.* p. xxix (1801); *Shaw, Gen. Zool.* vii. p. 474.

*Meliphaga cyanops*, *Lewin, B. New Holl.* pl. 4.

*Turdus cyaneus*, *Lath. Ind. Orn. Suppl.* p. xlii (1801).

*Merops cyanops*, *Lath. Ind. Orn. Suppl.* p. xxxiv (juv.).

*Tropidorhynchus cyanotis*, *Vig. & Horsf. Linn. Trans.* xv. p. 325.

*Entomyza cyanotis*, *Swains. Classif. B.* ii. p. 328 (1837); *Gray, List Gen. B.* p. 16; *Gould, B. Austr.* iv. pl. 68; *Bp. C. A.* i. p. 391; *Cab. Mus. Hein.* i. p. 121; *Reichenb. Vög. Neuholl.* no. 72; *id. Handb. Meropinae*, i. p. 138, pl. 502, figs. 3508-09; *Gould, Handb. B. Austr.* i. p. 560; *Diggle, Orn. Austr.* pl.; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190.

*Philemon cyanotis*, *Gray, Hand-l. B.* i. p. 160, no. 2092.

*Adult male.* Crown of head, hind neck, ear-coverts, lores, and subocular region black; greater part of the sides of the head, including the ocular region, bare of feathers and rich greenish blue; mantle and all the rest of the upper parts rich golden olive; inner webs of quills and terminal half of the primaries dark brown; basal half of inner web pale fulvous; tail like the back, but with whitish tips; edge of wing and under wing-coverts blackish brown; chin, throat, fore neck, and centre of chest blackish; all the rest of the

underparts pure white, including the line along the sides of the neck, and passing over the cheeks to the base of the mandible; sides of occiput also pure white, forming an incomplete crescent; "iris yellowish white; eyelash jet-black; feet bluish grey" (*Gould*). Culmen 2 inches, wing 5·5-6·2, tail 5·2-6, tarsus 1·2.

*Females* and young birds resemble the adult male, but the young have the naked face and the base of the bill pale yellowish olive (*Gould*).

*Hab.* From Rockingham Bay to New South Wales and Victoria.

a. ♂ ad. st.	North-east Australia.	Sir T. Mitchell [P.].
b. Ad. sk.	N. S. Wales.	J. Gould, Esq. [C.].
c. Ad. sk.	Queensland.	J. Gould, Esq. [C.].
d, e, f. Ad. sk.	Queensland ( <i>Cockerell</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].

## 2. *Entomyza albigennis*.

*Entomyza albigennis*, *Gould*, *P. Z. S.* 1840, p. 169; *id.* *B. Austr.* iv. pl. 69; *id.* *Handb. B. Austr.* i. p. 563; *Ep. C. A.* i. p. 391; *Reichenb. Handb. Meropinae*, i. pl. 502. figs. 3510-11; *Diggles, Orn. Austr.* pl.; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190. *Philemon albigennis*, *Gray, Hand-l. B.* i. p. 160, no. 2093.

*Adult.* Like *E. cyanotis*, but having the basal half or two thirds of the inner web of the primaries pure white instead of fulvous. Culmen 1·4 inch, wing 5·8, tail 4·5, tarsus 1·3.

*Hab.* North Australia.

a. Ad. sk.	North Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].
b. Ad. sk.	Port Essington.	Capt. W. Chambers [P.].

## 13. PHILEMON.

	Type.
<i>Philemon</i> , <i>Vieillot, Analyse</i> , p. 47 (1816) . . . . .	<i>P. moluccensis</i> .
<i>Philedon</i> , <i>Cuvier, Règne Animal</i> , i. p. 375 (1817) . . . . .	<i>P. moluccensis</i> .
<i>Tropidorhynchus</i> , <i>Vigors &amp; Horsfield, Linn. Trans.</i> xv. p. 323 (1826) . . . . .	<i>P. corniculatus</i> .
<i>Philemonopsis</i> , <i>Salvadori, Ann. Mus. Civic. Genov.</i> xvi. p. 79 (1880) . . . . .	<i>P. meyeri</i> .



Head of *Philemon corniculatus*.

Head of *Philemon inornatus*.

Bill longer than rest of head, curved; culmen with prominent ridge, frequently with a hump on its base. No bristles. Nostrils either operculated and more longitudinal, or oval and non-operculated, always with a coriaceous large groove behind, never beset with feathers. First primary very long. Tip of wing formed by third to fifth primaries. Secondaries four fifths to five sixths of the length of the wing. Tail square, or very slightly rounded. Tarsus covered with scales in front. Claws and toes short. Whole bird very dull brown in colour; inner edge of quills fulvous; parts of head frequently bare. Length of wing about 4·5–6 inches.

*Range.* Australian and Austro-Malayan Regions.

*Key to the Species.*

- a. Base of culmen with a large hump; feathers of fore neck and chest lanceolate in shape; nostrils oval or round, open.
- a'. Whole crown, sides of head, and neck all round bare; feathers of chest very lanceolate *corniculatus*, p. 271.
- b'. Centre of crown covered with feathers.
- a''. Sides of neck covered with feathers. { *noxæ guineæ*, p. 274.  
*jobiensis*, p. 275.  
*timoriensis*, p. 273.
- a'''. Crown brown..... { *argenteiceps*, p. 272.  
*buceroides*, p. 272.
- b'''. Crown silky brownish white .....
- b''. Sides of neck bare .....
- b. Culmen not humped.
- c'. Nostrils oval, open.
- c''. Feathers of fore neck and chest lanceolate; frequently also those of the crown.
- c'''. Lanceolate feathers short; remiges without pale edges.
- a<sup>4</sup>. Sides of head covered with feathers. . . . . *inornatus*, p. 275.
- b<sup>4</sup>. Sides of head bare; plumage uniform brown .....
- moluccensis*, p. 275.
- d'''. Lanceolate feathers very long and peculiar; wings and tail externally edged with bluish white .....
- lessoni*, p. 276.
- d''. Feathers of fore neck and chest short and rounded.
- e'''. Wings not washed with olive-yellow.
- c<sup>4</sup>. Feathers of chest with peculiar small white tips .....
- { *citreogularis*, p. 277.  
*sordidus*, p. 277.
- d<sup>4</sup>. Feathers of chest of usual shape.
- a<sup>5</sup>. Upper parts dark brown, underparts pale brownish grey, not striated; length of wing 6·5 inches .....
- cockerelli*, p. 278.

- b*<sup>s</sup>. Feathers of chest with dark brown streaks; wing 5·4 inches . . . . . *sclateri*, p. 279.  
*c*<sup>s</sup>. White collar on hind neck joining the underparts, which are yellowish white; wing 7·3 inches . . . . . *albitorques*, p. 278.  
*f*<sup>iii</sup>. Wings washed with olive-yellow.  
*e*<sup>a</sup>. Back dark brown; breast and abdomen } *plumigenis*, p. 279.  
 pale brown . . . . . } *fuscicapillus*, p. 279.  
*f*<sup>a</sup>. Upper parts brown, strongly washed with olive-yellow; underparts light brown, washed with wax-yellow . . . *subcorniculatus*, p. 280.  
*d*. Nostrils formed by a longitudinal slit, semi-operculate; length of wing 4·5 inches . . . . . *meyeri*, p. 281.

### 1. *Philemon corniculatus*.

*Merops corniculatus*, *Lath. Ind. Orn.* i. p. 276.

*Merops monachus*, *Lath. Ind. Orn.* i. p. 276, and *Suppl.* p. 34 (juv.).

Corbi-calao, *Levaill. Ois. Amér. et des Indes*, i. p. 69, pl. 24.

Knob-fronted Honey-eater, *Lath. Gen. Hist.* iv. p. 161.

*Gymnops corniculatus et monachus*, *Cuv. Règne Anim.* i. p. 381.

*Philemon monachus*, *Vieill. Enc. Méth.* p. 619 (1823).

*Tropidorhynchus corniculatus*, *Vig. & Horsf. Trans. Linn. Soc.* xv. p. 324; *Gould, B. Austr.* iv. pl. 58; *id. Handb. B. Austr.* i. p. 545; *Cab. Mus. Hein.* i. p. 121; *Bp. C. A.* i. p. 390; *Diggles, Orn. Austr.* pl.

*Philemon corniculatus*, *Gray, Hand-l. B.* i. p. 160, no. 2084; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190.

*Adult.* The following parts are bare of feathers:—Head and hind neck, sides of neck, with the exception of a few very small feathers on the nasal and superciliary regions, the feathers of the occiput and cheeks degenerating into a few hairs. General colour above uniform pale greyish brown; wings and tail slightly darker, the latter with whitish tips; chin and upper throat and the lanceolate feathers on the chest silky brownish white, with dark brown shaft-streaks; centre of fore neck blackish brown and almost bare; feathers of the rest of underparts, including the under wing-coverts, pale brownish at base, with faintly paler margins; abdomen and under tail-coverts almost clear white; inner margin of quills whitish; “iris red; feet lead-colour” (*Gould*). Culmen 1·3 inch, wing 5·7–6·2, tail 5·1–5·8, tarsus 1·2.

*Young birds* have the head less denuded of feathers; the lanceolate feathers on the chest slightly washed with yellow, and the feathers of the mantle, back, and upper tail-coverts tipped with greyish white.

*Hab.* From Wide-Bay district to New South Wales and Victoria.

- |                      |                                  |  |
|----------------------|----------------------------------|--|
| <i>a.</i> ♂ ad. sk.  | Upper Gilbert River.             | J. R. Elsey, Esq. [P.].                  |
| <i>b.</i> Ad. sk.    | Melbourne.                       | J. Gould, Esq. [C.].                     |
| <i>c.</i> Imm. sk.   | N. S. Wales.                     | Gould Collection.                        |
| <i>d.</i> Ad. st.    | N. S. Wales.                     | A. Cunningham, Esq. [P.].                |
| <i>e, f.</i> Ad. sk. | Queensland ( <i>Cockerell</i> ). | F. D. Godman and O. Salvin, Esqrs. [P.]. |

g. Ad. sk.	Port Bowen,	J. B. Jukes, Esq. [P.].
h. ♀ ad. sk.	Port Curtis, Queensland, April 1881 ( <i>Dr. Coppinger</i> ).	Voy. H.M.S. 'Alert.'

## 2. *Philemon argenticeps*.

*Tropidorhynchus monachus*, *Vig. & Horsf. Linn. Trans.* xv. p. 324 (*nec Merops monachus, Lath.*).

*Tropidorhynchus argenticeps*, *Gould, P. Z. S.* 1839, p. 144; *id. B. Austr.* iv. pl. 59; *id. Handb. B. Austr.* i. p. 548; *Honbr. et Jacq. Voy. Pôle Sud*, pl. 18. fig. 2; *Bp. C. A.* i. p. 390; *Diggle, Orn. Austr.* pl.

*Philemon argenticeps*, *Gray, Hand-l. B.* i. p. 160, no. 2085; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190.

*Adult.* Differs from *P. corniculatus* as follows:—The bill is much more slender throughout, and the whole bird is smaller. The feathers of the head, throat, and fore neck are silky white, with brown shaft-streaks, and of a very lanceolate shape, especially the feathers on the chest; the rest of the underparts are a little paler than in *P. corniculatus*. Culmen 1·3–1·4 inch, wing 5–5·4, tail 4·2–4·4, tarsus 1·1–1·2.

*Young birds* are paler in coloration; the feathers of the mantle are edged with white, the feathers of the throat are white washed with yellow, without showing any shaft-streaks; the feathers of the fore neck and chest have not yet attained the lanceolate shape.

*Hab.* North Australia, from Port Darwin to Cape York.

a. Juv. sk.	North Australia.	Linn. Soc. [P.]. (Type of <i>Tropidor. monachus</i> , <i>Vig. &amp; Horsf.</i> )
b. Ad. sk.	N. Australia.	Sir George Grey [P.].
c. Ad. sk.	Cape York.	F. D. Godman and O. Salvin, Esqrs. [P.].
d. Ad. sk.	N.W. Australia.	Purchased.
e. ♂ ad. st.	N. Australia.	Sir George Grey [P.].
f. Ad. sk.	Port Essington.	Gould Collection.
g. Ad. st.	Port Essington.	Dr. Sibbald [P.].
h. ♂ ad. sk.	Port Darwin, Oct. 1881 ( <i>Dr. Coppinger</i> ).	Voy. H.M.S. 'Alert.'

## 3. *Philemon buceroides*.

*Philemon buceroides*, *Swains. An. in Menag.* p. 325; *id. Classif. B.* v. pt. p. 68.

*Tropidorhynchus buceroides*, *Gray, Gen. B.* i. p. 125 (1847); *Gould, B. Austr. Suppl.* pl. 44; *id. Handb. B. Austr.* i. p. 547; *Bp. C. A.* i. p. 390.

*Philemon buceroides*, *Gray, Hand-l. B.* i. p. 160, no. 2089; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190.

The following parts are bare:—The greater portion of the sides of the head and sides of the neck, and in very old birds part of the hind neck also. The forehead, crown and occiput, throat, and fore neck are covered with lanceolate but short feathers, which are



pale silky brown with dark brown shafts, tips of the shafts bristle-like; all the upper parts uniform light brown; tail-feathers with hardly any paler tips; shafts above dark brown, white below; underparts uniform, very pale brown; ear-coverts blackish brown.

*Young birds* have the feathers of the upper parts slightly edged with whitish grey, and the pale margins of the inner webs of the quills are slightly more developed than in the adult.

	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.
Ad. ♂ . . . . .	2.0	6.0	5.5	1.5
Ad. ♀ . . . . .	1.7	5.7	5.1	1.4

*Hab.* North Australia, from the Gulf of Carpentaria to Cape York, and south to Rockingham Bay.

a. ♂ ad. sk.	Cape York.	J. Gould, Esq.
b. ♀ ad. sk.	Cape York.	Voy. H.M.S. 'Challenger.'
c-h. ♂; i, k. [♀] ad. sk.	Cape York ( <i>Cockerell</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].
, m, n. ♂ ♀ imm. sk.	Cape York ( <i>Cockerell</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].
o. Ad. st.	Cape York.	J. Gould, Esq.

#### 4. *Philemon timoriensis*.

*Tropidorhynchus timoriensis*, Müll. *Verhandl. Land- en Volkenk.* p. 153; Gray, *Gen. B.* i. p. 125; *Bp. C. A.* i. p. 390; Gray, *Hand-l. B.* i. p. 160, no. 2088.

*Philemon timoriensis*, *Reichenb. Handb. Meropinae*, i. p. 142 (1852).

Closely resembling *P. buceroides*, from which it differs, however, besides the shape of the culmen, in having the forehead, crown, and occiput covered with feathers, which are uniform reddish brown, and not lanceolate at all or only slightly pointed; the very light brown of the underparts frequently inclining to whitish on the abdomen and under tail-coverts. Culmen 1.8 inch, wing 5.8-6, ail 5.2-5.5, tarsus 1.4-1.5.

*Young birds* have the mantle tipped with whitish, and the remiges externally washed with olive.

*Hab.* Flores, Lombok, and Timor.

*Obs.* Two male specimens in the British Museum, collected by Mr. Wallace in Eastern Timor, are in every respect intermediate between *P. buceroides* and this species.

a, b, c. ♂ ad.; d. ♂ imm. sk.	Lombok.	A. R. Wallace, Esq. [C.].
e. ♂ ad. sk.	Lombok ( <i>Wallace</i> ).	Gould Collection.
f, g. ♂ ad. sk.	Flores.	A. R. Wallace, Esq. [C.].
h, i. ♂ ♀ ad.; k, l. ♂ imm. sk.	Eastern Timor.	A. R. Wallace, Esq. [C.].
m, n. ♂ ♀ ad. st.	Timor.	Purchased.
o. ♂ ad.; p. ♂ juv. sk.	Semao (Timor).	A. R. Wallace, Esq. [C.].

5. *Philemon novæ guineæ*.

*Merops monachus*, Quoy et Gaim. (nec Lath.) *Voy. de l' Astrol be*, Zool. i. p. 193 (1830).

*Tropidorhynchus monachus*, Less. *Compl. Buff., Ois.* p. 595 (1838).

*Meliphaga corniculata*, S. Müll. (nec Lath.) *Verh. Land- en Volkenk.* p. 21 (1839-44).

*Tropidorhynchus novæ guineæ*, S. Müll. *Verh. Land- en Volkenk.* p. 153 (1839-44); *Bp. C. A. i.* p. 390; *Scl. Proc. Linn. Soc.* ii. p. 158; *Gray, P. Z. S.* 1858, p. 174, 1859, p. 155, 1861, p. 434; *id. Cat. B. New Guin.* p. 24; *Rosenb. J. f. O.* 1864, p. 122; *Finsch, Neu-Guin.* p. 165; *Gray, Hand-l. B. i.* p. 160, no. 2086; *Meyer, Sitzb. Ak. Wiss. Wien*, lxx. pp. 113, 214; *Salvad. Ann. Mus. Civ. Gen.* vii. p. 775, viii. p. 401, x. p. 146; *Cab. & Reichenow, J. f. O.* 1879, p. 321; *d'Albert. Ann. Mus. Civ. Gen.* x. p. 20; *Ramsay, Proc. Linn. Soc. N. S. W.* iii. pp. 111, 287 (1879); *Sharpe, Proc. Linn. Soc.* xiii. p. 497, xiv. p. 687 (1879); *Rosenb. Malay. Archip* pp. 365, 553; *Salvad. Orn. Papuasias etc.* ii. p. 357.

*Philedon novæ guineæ*, Reichenb. *Handb. spec. Orn.* p. 142 (1852).

*Tropidorhynchus mitratus*, S. Müll. (MS.); *Scl. Proc. Linn. Soc.* ii. p. 158 (1858); *Gray, Cat. B. New Guin.* p. 24; *id. P. Z. S.* 1861, p. 434; *Finsch, Neu-Guin.* p. 165; *Gray, Hand-l. B. i.* p. 160, no. 2090; *Meyer, Sitzb. Ak. Wiss. Wien*, lxx. p. 114; *Rosenberg, Malay. Archip.* p. 553.

*Tropidorhynchus corniculatus*, Gray (nec Lath.), *P. Z. S.* 1858, p. 191; *Rosenb. Nat. Tijdschr. Ned. Ind.* xxv. p. 236; *id. J. f. O.* 1864, p. 122.

*Tropidorhynchus marginatus*, Gray, *P. Z. S.* 1861, p. 429; *Finsch, Neu-Guin.* p. 165; *Gray, Hand-l. B. i.* p. 160, no. 2087; *Meyer, Sitzb. Ak. Wiss. Wien*, lxx. p. 114.

*Philemon novæ guineæ*, Ramsay, *Proc. Linn. Soc. N. S. W.* i. p. 390 (1876), iv. p. 100 (1879).

*Philemon marginatus*, Rosenb. *Malay. Archip.* p. 395 (1879).

*Adult.* Like *P. timoriensis*, but the hump on the culmen is generally more developed, and the breast, abdomen, flanks, and under tail-coverts are uniform very light brown; the throat and fore neck are darker than in *P. timoriensis*, the brown central streaks being a little more developed. I am unable to perceive any other differences between these two supposed species, after an examination of about twenty-five specimens.

*Ad. ♂.* Wing 5·7-6 inches.

*Hab.* New Guinea, Aru Islands, Mysol, and Waigiou.

<i>a, b.</i> ♂ ad. sk.	Dorey.	A. R. Wallace, Esq. [C.].
<i>c.</i> ♂ ad. sk.	Aru Islands ( <i>Wallace</i> ).	Gould Collection.
<i>d, e.</i> ♂ ♀ ad. sk.	Aru Islands.	A. R. Wallace, Esq. [C.].
<i>f.</i> ♀ imm. sk.	Aru Islands.	A. R. Wallace, Esq. [C.].
<i>g.</i> ♂ imm. sk.	Waigiou.	A. R. Wallace, Esq. [C.].
<i>h, i.</i> ♂ ♀ ad. sk.	Waigiou.	A. R. Wallace, Esq. [C.]. (Types of <i>P. marginatus</i> .)
<i>k l.</i> ♂; <i>m.</i> ♀ ad. sk.	Mysol.	A. R. Wallace, Esq. [C.].

Subspecies *a*. **Philemon jobiensis.**

*Tropidorhynchus jobiensis*, Meyer, *Sitz. Ak. Wiss. Wien*, lxx. p. 113 (1874); *Sclat. Ibis*, 1874, p. 418.

*Philemon jobiensis*, Salv. *Ann. Mus. Civ. Gen.* xvi. p. 80 (1880); *id. Orn. Papuasia etc.* ii. p. 356.

In the Jobi Islands, and very probably in the neighbouring parts of New Guinea, *P. novæ guineæ* seems to be represented by a very similar bird, which, however, has the hump on the base of the culmen much less developed, whilst the bare parts include the greater part of the crown, which is covered with only a few bristle-like feathers. Wing 6·3 inches, tail 5·1, tarsus 1·45. (*Salvadori*.)

6. **Philemon inornatus.**

*Philedon vulturin*, *Hombr. et Jacq. Voy. Pôle Sud*, pl. 18. fig. 1 (no description, locality uncertain).

*Tropidorhynchus inornatus*, Gray, *Gen. B.* i. p. 125 (1846); *Bp. C. A.* i. p. 390.

*Tropidorhynchus cineraceus*, Müll. *Mus. Lugd. (teste Bonap.)*; *Bp. C. A.* i. p. 390 (1850).

*Philedon inornatus*, *Reichenb. Handb. spec. Ornith.* i. p. 141.

*Philedon cinerascens*, *id. op. cit.* p. 142.

*Tropidorhynchus vulturinus*, *Jacq. et Puch. Voy. Pôle Sud*, iii. p. 88 (1853).

*Philemon inornatus*, Gray, *Hand-l. B.* i. p. 159, no 2077 (1869).

*Adult.* Culmen without any protuberance; only the lores and the region below the eye bare; sides and crown of head and all the upper parts uniform light brown; the wing and tail-feathers externally washed with olive-yellow; all the other parts brownish white, inclining to pale buff on the abdomen, flanks, and under tail-coverts; inner margin of quills whitish; the feathers of the chest and lower fore neck slightly elongated and pointed, but not stiff; terminal half white, basal half mottled pale brownish and grey. Culmen 1·2 inch, wing 4·4-4·6, tail 4·1, tarsus 1·2.

*Young birds* are like the adult, but have the feathers of the chest tipped and washed with bright yellow.

*Hab.* Timor.

<i>a, b.</i> ♂; <i>c.</i> ♀ ad. sk.	Eastern Timor.	A. R. Wallace, Esq. [C.]
<i>d.</i> Ad.; <i>e.</i> Juv. sk.	Timor.	A. R. Wallace, Esq. [C.]
<i>f.</i> Ad. sk.	Timor, Dec.	Gould Collection.

7. **Philemon moluccensis.**

*Merops moluccensis*, *Gm. S. N.* i. p. 465 (1788); *Lath. Ind. Orn.* i. p. 276; *Vieill. Enc. Méth.* p. 280.

*Philemon cinereus*, *Vieill. Analyse*, p. 47 (1816); *id. Nouv. Dict.* xxvii. p. 422.

- Philedon moluccensis*, *Cuv. Règne Anim.* i. p. 358, note (1817); *Reichenb. Handb. spec. Orn.* i. p. 140; *Sundev. Av. Meth. Tent.* p. 51.
- Meliphaga moluccensis*, *Steph. in Shaw's Gen. Zool.* xiv. p. 260 (1826); *Temm. Pl. Col.* i. p. 72.
- Tropidorhynchus moluccensis*, *Gray, Gen. B.* i. p. 125 (1846); *id. P. Z. S.* 1860, p. 349.
- Turdus moluccensis*, "*Gm.*," *Bp. C. A.* i. p. 391 (1850).
- Tropidorhynchus bouruensis*, *Wallace (nec Gray), P. Z. S.* 1863, p. 19; *Finsch, Neu-Guinea*, p. 165.
- Philemon moluccensis*, *Sclat. P. Z. S.* 1869, p. 120; *Gray, Hand-l. B.* i. p. 159, no. 2074; *Walden, Tr. Zool. Soc.* viii. 1872, p. 106; *Salvad. Ann. Mus. Civ. Gen.* viii. p. 379; *id. Orn. Papuasia etc.* ii. p. 352.

*Adult.* Only the region round the eye, the ear, and a small part of the hind neck bare of feathers, and the culmen without any hump; crown of head and all the rest of the upper parts uniform brown, slightly paler on the hind neck; hinder part of cheeks and sides of occiput dull brown, with paler edges to the feathers; all the underparts light brown, inclining to brownish white on the throat, the feathers of which are slightly lanceolate and short, with fine brown shafts ending in bristles.

*Young birds* have the feathers of the sides of the chest broadly edged with yellowish white.

Ad. ♂. Culmen 1·6–1·8 inch, wing 6·2, tail 5·1–5·5, tarsus 1·6.

♀. Wing 5·8–6·2 inches.

*Hab.* Bouru and Ké Islands.

- |                            |                                |  |
|----------------------------|--------------------------------|--|
| a. ♀ ad. sk.               | Bouru Island.                  | A. R. Wallace, Esq. [C.]<br>(Type of <i>T. bouruensis</i> .) |
| b. ♀ ad.; c. ♂<br>imm. sk. | Bouru Island.                  | A. R. Wallace, Esq. [C.]                                     |
| d. ♀ ad. sk.               | Ké Islands.                    | A. R. Wallace, Esq. [C.]                                     |
| e. ♂ ad. sk.               | Ké Islands ( <i>Wallace</i> ). | Gould Collection.  |

### 8. *Philemon lessoni*.

*Tropidorhynchus diemenensis*, *Less. Traité d'Orn.* p. 401; *Pucher. Arch. du Mus.* 1855, pl. 21.

*Tropidorhynchus lessoni*, *Gray, P. Z. S.* 1859, p. 161.

*Philemon lessoni*, *Gray, Hand-l. B.* i. p. 160, no. 2080.

*Philemon vulturinus*, *Scl. (nec Hombr. et Jacq.) P. Z. S.* 1869, p. 124.

*Adult.* Head without any bare parts; feathers of crown triangular, brown in the middle, with broad greyish edges; occiput, hind neck, mantle, back, and upper tail-coverts brown, darkest on the scapulars; remiges, wing-coverts, and tail black-brown, with the outer web broadly edged with whitish grey; ear-coverts mottled brown and whitish; cheeks dark brown; upper throat dull brownish grey; feathers of fore neck and chest very much lanceolated, whitish, with pale brown shaft-streaks; all the rest of the underparts pale yellowish brown; bill and feet blackish brown, soles yellow. Culmen

1.2-1.5 inch, wing 4.8-5.3, tail 4.1-4.9, tarsus 1.3-1.4 (the smaller measurements refer to the female).

*Hab.* New Caledonia and Loyalty Islands.

a. Ad. sk.	New Caledonia ( <i>Macgillivray</i> ).	Eyton Collection.
b. ♂ ad. sk.	Isle of Pines.	J. Macgillivray, Esq. [C.].
c. [♀] ad. sk.	Port St. Vincent.	J. Macgillivray, Esq. [C.].
d. ♂ ad. st.	Loyalty Islands.	Sir George Grey [P.].
e. Ad. st.	Loyalty Islands.	Sir George Grey [P.].

### 9. *Philemon citreogularis*.

*Tropidorhynchus citreogularis*, *Gould, P. Z. S.* 1836, p. 143; *id. B. Austr.* iv. pl. 60; *id. Handb. B. Austr.* i. p. 549; *Bp. C. A. i.* p. 390.

*Philemon citreogularis*, *Gray, Hand-l. B. i.* p. 160, no. 2078; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190.

*Adult.* The checks only and the region around the eye bare, in very old birds also part of the crown next to the eye; crown and all the upper parts of the body, including the wings and tail, uniform light brown; all the underparts uniform brownish white, with a more or less distinct silky gloss; upper throat, abdomen, and under tail-coverts almost white; thighs light brown; chest washed with pale brown; the feathers of the chest remarkable for their peculiar shape, the shafts ending in a small white brush; "bill and feet leaden olive; iris and eyelash nearly black; naked part of the face mealy, bluish lead-colour" (*Gould*). Culmen 1.05-1.2 inch, wing 5-5.2, tail 4.1, tarsus 1.05.

*Hab.* Greater part of Australia.

a, b. Ad. sk.	N. S. Wales.	Gould Collection.
c. Ad. sk.	S.E. Australia.	Sir T. Mitchell [P.].
d. Ad.; e. Imm. sk.	Queensland ( <i>Cockerell</i> ).	F. D. Godman and O. Salvin, Esqrs. [P.].
f. ♂ ad. sk.	Port Curtis, Queensland, April 1881 ( <i>Dr. Coppinger</i> ).	Voy. H.M.S. 'Alert.'
g. ♂ imm. sk.	Port Darwin, Oct. 1881 ( <i>Dr. Coppinger</i> ).	Voy. H.M.S. 'Alert.'
h. Ad. sk.	N.W. Australia.	J. R. Elsey, Esq. [P.].
i. Juv. sk.	Australia.	Purchased.

### Subspecies a. *Philemon sordidus*.

*Tropidorhynchus sordidus*, *Gould, B. Austr.* i. *Introd.* p. 58; *id. Handb. B. Austr.* i. p. 550; *Bp. C. A. i.* p. 390.

*Philemon sordidus*, *Gray, Hand-l. B. i.* p. 160, no. 2082; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 190.

"This species inhabits the Cobourg Peninsula, and is very similar to *P. citreogularis*, but is smaller in all its admeasurements except in the bill, which is more developed" (*Gould*).

10. *Philemon cockerelli*. (Plate II.)

*Philemon cockerelli*, *Scl. P. Z. S.* 1877, p. 104, 1879, p. 447; *Layard, This*, 1880, p. 297; *Salv. Ann. Mus. Civ. Gen.* xvi. p. 80; *id. Orn. Papuaia etc.* ii. p. 356.

*Adult.* Nasal, loral, and ocular regions almost bare; entire crown, occiput, and the feathers on the sides of the head brown; chin, throat, and neck all round greyish white, the shafts of the feathers being brown and slightly projecting; none of the feathers in the plumage of this bird lanceolate; all the upper parts uniform brown, with a slight olive tinge on the wings; under surface of tail and wings with a strong silky white gloss; the inner margins of the quills only slightly paler; all the rest of the underparts, including the wing-coverts, uniform pale brownish buff, with a strong silky gloss; upper chest and sides of lower neck strongly washed with the brown colour of the back.

*Young birds* have the wings and tail strongly washed with dull olive; hind neck dull greyish white; sides of chest brownish grey, edged with yellowish.

(Type.) Culmen 1·6 inch, wing 6·1, tail 5·3, tarsus 1·6.

*Hab.* New Britain.

- |              |  |  |
|--------------|--|--|
| a. Ad. sk.   | New Britain.                                       | Rev. G. Brown [C.]<br>(Type of species.) |
| b. ♀ ad. sk. | New Britain, May 1878.                             | Rev. G. Brown [C.]                       |
| c. ♂ ad. sk. | New Britain, Nov. 1880<br>( <i>Kleinschmidt</i> ). | Museum Godeffroy.                        |

11. *Philemon albitorques*.

*Philemon albitorques*, *Scl. P. Z. S.* 1877, p. 553; *Salvad. Ann. Mus. Civ. Gen.* xvi. p. 80; *id. Orn. Papuaia etc.* ii. p. 354.

*Adult.* Base of bill, loral and ocular regions, and cheeks covered with a few bristle-like blackish-brown feathers; whole crown and upper parts brown; wings and tail a little darker; the occiput separated from the brown of the hind neck by a dull white crescent, which joins the dull white of the sides of the neck behind the ear-coverts; chin and upper throat whitish grey; rest of the underparts dingy white, washed with pale yellow across the chest, and with light yellowish brown on the breast, abdomen, and flanks: edge of wing, under wing-coverts, thighs, and under tail-coverts pale buff. Culmen 1·9 inch, wing 7·2, tail 6, tarsus 1·9.

*Hab.* Admiralty Islands.

- |              |                    |   |
|--------------|--------------------|---|
| a. ♀ ad. sk. | Admiralty Islands. | Voy. H.M.S. 'Challenger.'<br>(Type of species.) |
|--------------|--------------------|---|

12. *Philemon sclateri*.

? *Philemon vulturinus*, *Scl. (nec Reichb.) P. Z. S.* 1869, p. 124.

*Philemon sclateri*, *Gray, Ann. & Mag. N. H.* 1870, v. p. 327; *id. in Brenchley's Cruise of the 'Curaçoa,' Birds*, p. 362, pl. 5; *Tristram, Ibis*, 1879, p. 439; *Ramsay, Proc. Linn. Soc. N. S. W.* vii. p. 26.

*Meliarchus sclateri*, *Salvad. Ann. Mus. Civ. Gen.* xvi. p. 75 (1880); *id. Orn. Papuasias etc.* ii. p. 322.

*Adult female.* Above brown, with an olive tinge; rump and tail dull rufous-brown, each feather of the latter margined with yellowish olive; wings dusky black, with the outer margins of the quills yellowish olive, especially of the inner secondaries; top and sides of head dusky black, each feather broadly margined on its sides with yellowish white; throat white, tinged with grey, with a broad line of black on each side proceeding from the ears; breast white, with black dashes down the middle of each feather, the black fading into brown on the upper part of the abdomen. Bill yellowish white; feet plumbeous. Length 11", wing 5" 6"', bill 1" 6"', tarsi 1" 4'''.

a. ♀ ad. sk. San Christoval, Aug. 1865. J. Brenchley, Esq. [P.]  
(Type of species.)

13. *Philemon fuscicapillus*.

*Tropidorhynchus fuscicapillus*, *Wall. Ibis*, 1862, p. 351; *Finsch, Neu-Guin.* p. 165.

*Philemon fuscicapillus*, *Gray, Hand-l. B.* i. p. 159, no. 2075; *Salvad. Ann. Mus. Civ. Gen.* xvi. p. 79; *id. Orn. Papuasias etc.* ii. p. 354.

*Adult.* Culmen with a very slight prominence at the base; sides of head partly covered with feathers and partly with bristles; region round the eye naked and flesh-coloured; all the upper parts uniform dark brown, darkest on the head, the feathers of which are not lanceolate; wings slightly washed with pale olive; throat dull greyish white, the feathers being short and not lanceolate; rest of underparts, including the under wing-coverts and inner margin of quills, uniform pale brown; fore neck and chest slightly washed with brownish yellow; bill black; feet lead-colour. Culmen 1.7 inch, wing 5.8, tail 5.4, tarsus 1.6.

*Hub.* Moluccas.

a, b, c. Ad. sk. Morty Island. A. R. Wallace, Esq. [C.]  
(Types of species.)

d. ♂ imm. sk. Morty Island, Sept. 22, 1861 (*Bernstein*). F. D. Godman and O. Salvin, Esqrs. [P.]

14. *Philemon plumigenis*.

*Tropidorhynchus*, n. sp., *Wall. Ann. & Mag. N. H.* 1857, xx. p. 473.

*Tropidorhynchus plumigenis*, *Gray, P. Z. S.* 1858, pp. 174, 191; *id. Cat. B. New Guin.* p. 24; *id. P. Z. S.* 1861, p. 434; *Finsch, Neu-Guin.* p. 165; *Rosenberg, Reis. naar Zuidoostereil.* p. 79; *Meyer, Sitz. Ak. Wiss. Wien*, lxx. p. 114; *Rosenb. Malay. Archip.* p. 365

*Philemon plumigenis*, *Gray, Hand-l. B. i. p. 160, no. 2031; Salvad. P. Z. S. 1878, p. 88; id. Ann. Mus. Civ. Gen. xvi. p. 655; id. Orn. Papuasia etc. ii. p. 353.*

*Adult.* Closely resembling *P. fuscicapillus* in the shape of the bill and in the extent of the bare parts; the region round the eye black; all the upper parts uniform brown, with the head not darker than the rest; underparts of the body and wings pale brown, except the chest and throat, the feathers of which are darker brown like the upper parts, those of the throat being tipped with greyish, whilst the feathers of the chest are rather broadly edged with pale yellow; wings externally slightly tinged with olive. Culmen 1·7 inch, wing 5·7-6, tail 5·1, tarsus 1·5-1·6.

*Hab.* Ké Islands and Timor Laut.

a. Ad. sk.	Ké Islands.	A. R. Wallace, Esq. [C.] (Type of species.)
b, c. ♂ juv. sk.	Ké Doulan.	Voy. H.M.S. 'Challenger.'
d. ♂ ad. sk.	Loetoer, Tenimber Islands, Aug. 9, 1882 ( <i>H. O. Forbes</i> ).	British Association [P.].
e. ♀ ad. sk.	Larat, Tenimber Islands, Aug. 1882 ( <i>H. O. F.</i> ).	British Association [P.].
f. ♂ ad. sk.	Larat, Nov. 1882 ( <i>H. O. F.</i> ).	British Association [P.].

### 15. *Philemon subcorniculatus*.

*Merops subcorniculatus*, *Hombr. et Jacq. Ann. Sci. Nat. 1841, p. 314.*

*Tropidorhynque subcorniculatus*, *Hombr. et Jacq. Voy. Pôle Sud, iii. p. 87, pl. 16. fig. 1 (1844).*

*Tropidorhynchus subcornutus*, "*Temm.*" *Mus. Lugd. (teste Salvad.); Gray, Gen. B. i. p. 125 (sine descript.); id. P. Z. S. 1860, p. 349; Bp. C. A. i. p. 390; id. C. R. xxxviii. p. 262; Wall. Ibis, 1861, p. 283; id. P. Z. S. 1863, p. 27; Finsch, Neu-Guin. p. 165.*

*Tropidorhynchus subcorniculatus*, *Gray, Gen. B., App. p. 6 (1849); Bp. C. A. i. p. 390; id. C. R. xxxviii. p. 262; Jacq. et Pucher. Voy. Pôle Sud, Ois. p. 87, pl. 16. fig. 1; Hartl. J. f. O. 1854, p. 164.*

*Philedon subcornutus*, *Reichenb. Handb. Merop. p. 141, fig. 3516 (1852).*

*Philemon subcornutus*, *Gray, Hand-l. B. i. p. 159, no. 2076; Rosenberg, Malay. Archip. p. 322.*

*Philemon subcorniculatus*, *Salvad. Ann. Mus. Civ. Gen. xvi. p. 66 (1880); id. Orn. Papuasia etc. ii. p. 355.*

*Adult.* The feathers of the crown slightly elongated, with the shafts ending in bristles; the base of the culmen slightly elevated; loreal and ocular regions bare; occiput, sides of neck, and hind neck covered with downy grey feathers; crown of head and all the rest of the upper parts brown, very strongly washed with olive-yellow this colour becoming predominant on the outer edge of the quills and tail-feathers; underparts of the body and under wing-coverts light brown, strongly washed with wax-yellow, especially on the chest and fore neck; throat dull yellowish grey or brownish; inner margin of quills slightly paler than the rest of the webs; "bill and



feet black; iris red-brown" (*Salvadori*). Culmen 1.7–1.9 inch, wing 6.1–6.4, tail 5.5–5.8, tarsus 1.5–1.6.

*Hab.* Ceram.

*a, b, c.* Ad. sk.

Ceram.

A. R. Wallace, Esq. [C.].

*d.* Ad. sk.

Ceram (*Wallace*).

Gould Collection.

#### 16. *Philemon meyeri*.

*Tropidorhynchus inornatus*, Meyer (*nec Gray*), *Sitzb. Ak. Wiss. Wien*, lxx. p. 212 (1874); *id. Ibis*, 1875, p. 147.

*Ptilotis*, nov. gen.?, *d'Albertis, Ann. Mus. Civ. Gen.* x. p. 20 (1877).

*Philemon meyeri*, *Salvad. Ann. Mus. Civ. Gen.* xii. p. 339 (1878); *d'Alb. et Salvad. op. cit.* xiv. p. 82.

*Philemonopsis meyeri*, *Salv. op. cit.* xvi. p. 79 (1880); *id. Orn. Papuasias etc.* ii. p. 350.

*Adult.* The bare parts restricted to the ocular region and the small part of the sides of the crown; all the upper parts ashy brown, with slightly paler margins to each feather; feathers of crown and hind neck darker towards the shafts; wings and tail uniform brown; cheeks, ear-coverts, and all the underparts uniform pale ashy brown. Culmen 1.2 inch, wing 4.2–4.5, tail 3.7–3.9, tarsus 1.

*Young birds* have the feathers of the mantle edged with white, those of the fore neck and chest edged with pale yellow.

*Hab.* New Guinea.

*a, b.* Ad. sk.; *c.* Juv. sk. Astrolabe Mountains. Mr. A. Goldie [C.].

#### 14. MELITOGRAIS.

Type.

Melitograis, *Sundevall, Method. Av. Tentam.* p. 50 (1872) *M. gilolensis*.

Bill longer than rest of head, curved: culmen strongly ridged. Nostrils longitudinal, with a very well-developed operculum. First primary about half the length of the second. Tail square, and four fifths, secondaries five sixths of the length of the wing. Scutella in front of the tarsus sometimes fused together. Pattern of colour very much like that of *Philemon*, but the shafts of the feathers white; feathers of fore neck not lanceolate. Length of wing about 4 inches.



Head of *Melitograis gilolensis*.

*Range.* Moluccas.

1. *Melitograis gilolensis*.

- Meliphaga gilolensis*, *Temm. Mus. Luyd. (teste Salvad.)*.  
*Tropidorhynchus gilolensis*, *Bp. C. A. i. p. 390 (1850)*; *Finsch, New-Guin.* p. 165; *Gray, Hand-l. B. i. p. 160, no. 2091*; *Meyer, Sitzb. Ak. Wiss. Wien*, lxx. p. 210; *Salvad. P. Z. S. 1877*, p. 194; *id. Orn. Papuasie etc. ii. p. 349*.  
*Anthochæra senex*, *Gray, P. Z. S. 1860*, p. 349; *Meyer, l. c.*  
*Philemon senex*, *Gray, Hand-l. B. i. p. 160, no. 2079*; *Meyer, l. c.*  
*Melitograis striata*, *Sund. Meth. Av. Teut. p. 50 (1872)*; *Meyer, l. c.*  
*Melitograis gilolensis*, *Salv. Ann. Mus. Civ. Gen. vii. p. 775 (1875)*, xvi. p. 79; *id. Orn. Papuasie etc. ii. p. 349*.  
*Melidipnus gilolensis*, *Cab. & Reichenow, J. f. O. 1876*, p. 321.

*Adult.* The ocular region, part of the sides of the fore neck, and sides of the occiput bare; the stiff lanceolate feathers of the crown brownish grey with white shafts; neck, mantle, and back blackish brown tinged with olive, with the shafts white; lower back and upper tail-coverts inclining to pale brown; wings, wing-coverts, and tail light brown; feathers of throat, fore neck, and breast dark brown, with conspicuous white shafts; some of the feathers of the breast with pale tips; abdomen, flanks, under tail-coverts, and thighs dull brown; axillaries and inner margin of quills rich fulvous; under wing-coverts greyish rufous; the shafts of the wing- and tail-feathers dark brown above, white below. Culmen 1.2-1.4 inch, wing 3.9-4.3, tail 3-3.5, tarsus 1.1-1.2.

The female differs from the male in being smaller.

Young birds have the wing-coverts and remiges broadly edged with rufous.

*Hab.* Molucca Islands.

<i>a, b.</i> ♂ ad. ; <i>c.</i> Juv. sk.	Gilolo.	A. R. Wallace, Esq. [C.]
<i>d.</i> Ad. sk. (albino).	Gilolo.	A. R. Wallace, Esq. [C.]
, <i>f.</i> Ad. sk.	Batchian.	A. R. Wallace, Esq. [C.]
<i>g.</i> ♂ ad. sk.	Batchian.	A. R. Wallace, Esq. [C.]
		(Type of species.)
<i>h.</i> Ad. sk.	Batchian ( <i>Wallace</i> ).	Gould Collection.

15. **PROMEROPS.**

- Promerops*, *Brisson, Ornith. ii. pl. 34 (1760)* . . . . . Type. P. cafer.  
*Ptiloturus, Swains. (nec Boie), Classif. B. ii. p. 327 (1837)* . . P. cafer.  
*Ptilurus, Strickl. (1841).*

Bill slender and slightly curved, almost double the length of the head, with ridged culmen. Nostrils longitudinal, operculated, not covered by feathers; no bristles. First primary half the length of the second. Tip of wing formed by third to sixth primaries. Tail extremely long. Tarsus covered with scales. Length of wing about 3.5-3.7 inches.

*Range.* South Africa.

1. *Promerops cafer*.

- Merops cafer*, *Linn. S. N.* i. p. 183 (1766); *P. L. S. Müller, S. N.* ii. p. 248, no. 7, pl. 8. fig. 5 (1773).  
 Upupa *promerops*, *Linn. S. N.* i. p. 184 (1766); *P. L. S. Müller, S. N.* ii. p. 251, no. 2, pl. 8. fig. 7 (1773); *Lath. Ind. Orn.* i. p. 278, no. 5 (1790); *Bechst. Kurze Uebers.* p. 173, no. 5 (1812); *Stanley in Salt's Voy. Abyss.* ii. p. 344 (1816).  
 Le *Promerops* du Cap de Bonne Espérance, *Daubent. Pl. Enl.* vi. p. 516.  
*Promerops* brun à ventre tacheté, *Daubent. tom. cit.* pl. 637.  
 Cape *Promerops*, *Lath. Gen. Syn.* ii. p. 692 (1782).  
*Certhia caffra*, *Gm. S. N.* i. p. 484 (1788).  
 Le *Promerops*, *Aud. et Vieill. Ois. Dor.* i. p. 13, pl. 4 (1802).  
 Le Grand Sucrier ou Sucrier du Protea, *Levaill. Ois. d'Afr.* vi. p. 139, pls. 287, 288 (1808); *Sunder. Krit. Framst., Levaill.* p. 56 (1857).  
*Promerops cafer*, *Shaw, Gen. Zool.* viii. p. 143 (1811); *Gray, Gen. B. i.* p. 97 (1847); *Bp. C. A. i.* p. 410, no. 876 (1850); *Reichb. Handb. Scansoriae*, p. 352, no. 772, pl. 613. figs. 4094-96 (1854); *Müll. J. f. O.* 1855, p. 12; *Layard, B. S. Afr.* p. 74 (1867); *Grill, Zool. Anteckn.* pp. 11, 39 (1858); *Pelzeln, Reise Novara*, i. p. 53 (1865); *Gray, Hand-l. B. i.* p. 109, no. 1338 (1869); *Shelley, Monogr. Nect.* p. 377, pl. 121.  
*Cinnyris longicaudatus*, *Vieill. N. Dict.* xxxi. p. 510 (1819).  
*Nectarinia caffra*, *Licht. Verz. Doubl.* p. 15 (1823).  
*Falcinellus griseus*, *Bonn. et Vieill. Enc. Méth.* ii. p. 580 (1823).  
*Cinnyris capensis*, *Less. Man. d'Orn.* ii. p. 49 (1828).  
*Promerops capensis*, *Less. Traité*, p. 322 (1831).  
*Ptiloturus cafer*, *Cab. Mus. Hein.* i. p. 104, no. 566 (1850).  
*Ptilurus cafer*, *Licht. Nomencl.* p. 55 (1854).

*Adult male.* General colour above uniform dark brown, most of the feathers with pale olive margins; the lanceolate feathers of the crown with pale shafts and tips; the lower back and upper tail-coverts dull yellowish olive; throat and part of the cheeks dingy white; ear-coverts pale brown, a brownish streak running down the base of each mandible; fore neck and chest rufous-brown, each feather with paler tips; feathers of breast, abdomen, and flanks dull whitish, with broad dusky brown central streaks; lower flanks and under tail-coverts bright yellow; under surface of wings dark brown; bill and feet black. Culmen 1.3-1.4 inch, wing 3.7, tail between 11 and 14 inches, tarsus 0.87.

The *female* is paler and has a much shorter tail than the male. Wing 3 inches, tail 4.25.

*Hab.* South Africa.

- |                     |  |                         |
|---------------------|--|-------------------------|
| a. ♀ ad. sk.        | Table Mountain, Dec. 7, 1861<br>( <i>Andersson</i> ).  | R. B. Sharpe, Esq.      |
| b. ♀ ad. sk.        | Table Mountain, Nov. 30,<br>1861 ( <i>Andersson</i> ). | R. B. Sharpe, Esq.      |
| c, d. ♂ ♀ ad. sk.   | South Africa ( <i>Layard</i> ).                        | R. B. Sharpe, Esq.      |
| e. ♂ ad. sk.        | S. Africa ( <i>McLeannan</i> ).                        | R. B. Sharpe, Esq.      |
| f, g. [♂ ♀] ad. sk. | Cape.  | J. B. Jukes, Esq. [P.]. |
| h. [♂] ad. sk.      | Cape.  | The Admiralty [P.].     |

2. *Promerops gurneyi*.

*Promerops cafer*, *Gurney, Ibis*, 1862, p. 27 (*nee Linn.*).

*Promerops gurneyi*, *J. Ferr. P. Z. S.* 1871, p. 135, pl. 8; *Barratt, Ibis*, 1876, p. 202; *Shelley, Monogr. Neet.* p. 381.

Like *P. cafer*, but with the crown of the head, sides of neck, fore neck, and chest rich rufous or rusty red. Culmen 1·3 inch, wing 3·8, tail 7 (or more?), tarsus 0·85.

*Hab.* Natal and the Transvaal.

a. Ad. sk.	Natal ( <i>Verreaux</i> ).	R. B. Sharpe, Esq. (Type of species.)
b. Ad. sk.	Near Lydenburg.	F. Barratt, Esq. [C.].

## 16. MOHO.

Type.

*Gracula, Merrem, Av. Icon.* p. 7, pl. 2 (1786).

*Moho, Less. Traité d'Orn.* i. p. 302 (1831)..... *M. nobilis*.

*Acrulocercus, Cab. Wiegmann, Arch. f. Naturg.* 1847, p. 327.. *M. nobilis*.

*Mohoa, Reichenb. Syst. Av.* pl. 41 (1850) ..... *M. nobilis*.

Bill strongly curved and longer than the rest of the head. Nostrils operculated, not covered with feathers. First primary half the length of the second. Tip of wing formed by the third to sixth primaries. Secondaries three fourths the length of the wing. Tail much graduated, pointed and soft, a little longer than the wings. Tarsus long, the scales fused with each other. Plumage black, also the inner webs of the quills. Large yellow pectoral tufts as in the *Nectariniidae*.

*Range.* Sandwich Islands.

1. *Moho nobilis*.

Yellow-tufted Bee-eater, *Lath. Gen. Syn.* i. p. 683, no. 18 (1782).

*Gracula nobilis, Merrem, Av. Icon.* p. 8, pl. 2 (1788).

*Merops niger, Gm. S. N.* i. p. 465 (1788).

*Merops fasciculatus, Lath. Ind. Orn.* i. p. 275, no. 19 (1790).

*Meliphaga fasciculata, Temm. Pl. Col.* 471.

*Moho fasciculatus, Less. Traité d'Orn.* i. p. 302.

*Acrulocercus niger, Cab. Wiegmann, Arch. f. Naturg.* 1847, p. 327.

*Moho niger, Gray, Gen. B.* i. p. 96, pl. 33, fig. 2 (1847).

*Ptiloturus fasciculatus, Peale, U. S. Expl. Exp.* 1848.

*Mohoa fasciculata, Reichenb. Syst. Av.* pl. 41 (1852), p. 149; *id.*

*Handb. Meropinae*, p. 333, pl. 604.

*Epimachus pacificus, Licht. Nomencl.* p. 54 (1854).

*Mohoa braccata, Cassin, Proc. Ac. Phil.* vii. 1855, p. 440; *id. U. S.*

*Expl. Exp.* 1858, p. 172; *Pelzel, Ibis*, 1873, p. 21; *Scl. Ibis*, 1879,

p. 92.

*Moho braccata, Gray, Hand-l. B.* i. p. 114, no. 1411.

*Moho nobilis, Gray, Hand-l. B.* i. p. 114, no. 1409; *Scl. Ibis*, 1871,

pp. 358, 360.

*Mohoa nobilis, Cassin, Pr. Ac. Philad.* vii. 1855, p. 440; *v. Pelz.*

*J. f. O.* 1872, p. 25; *Scl. P. Z. S.* 1878, p. 347; *id. Ibis*, 1879,

p. 92.

*Adult.* General colour of all the upper and under parts of the body brownish black, more inclining to blackish brown on the lower back and upper tail-coverts; wings and the four middle pairs of the tail-feathers entirely black; the two outer pairs of tail-feathers black at the basal half, white at the terminal half, the shafts and a small spot at the tip black: outer webs white and yellow; under tail-coverts and a very large tuft of long fluffy feathers on each side of the chest golden yellow; bill and feet black. Culmen 1.1 inch, wing 3.9, tail 4.2-5.1, tarsus 1.25-1.35.

*Hab.* Sandwich Islands.

a. ♂ ad. sk.	Hilo, Owhyhee.	Voy. H.M.S. 'Challenger.'
b. Ad. sk.	Sandwich Islands.	J. Gould, Esq.

## 2. *Moho apicalis.*

Yellow-tufted Bee-eater, *Dixon's Voy.* pl. 19, p. 357 (1789).

*Moho apicalis*, *Gould, P. Z. S.* 1860, p. 381; *Gray, Hand-l. B.* i. p. 114, no. 1410; *Scl. Ibis*, 1871, p. 358, 1879, p. 92.

*Adult.* General colour of upper and under parts black; all the tail-feathers, with the exception of the central pair, with white tips; central pair of tail-feathers very much pointed, and bent upwards at the terminal third; under wing-coverts white; axillaries, large pectoral tufts, a few feathers on the flanks, and the under tail-coverts bright yellow; bill and feet black-brown; iris reddish brown. Culmen 1.15-1.4 inch, wing 4-4.6, tail 5-6, tarsus 1.25-1.4.

*Hab.* Sandwich Islands.

a, b. [♂ ♀] ad. sk.	Sandwich Islands.	J. Gould, Esq.
c. [♂] ad. sk.	Sandwich Islands.	Capt. Lord Byron [P.].

## 17. MELIDECTES.

*Melidectes*, *Scl. Proc. Zool. Soc.* 1873, p. 694 . . . . . M. torquatus. Type.

Bill longer than the rest of the head, curved. Nostrils operculated, not covered with feathers. First primary long. Tip of wing formed by the third to sixth primaries. Secondaries four fifths of length of whole wing. Tail strongly rounded, slightly longer than the wing. Scales on front of tarsus almost fused. Anterior claws and toes very short. Inner edge of quills fulvous.

*Range.* New Guinea.

### 1. *Melidectes torquatus.*

*Melidectes torquatus*, *Scl. P. Z. S.* 1873, p. 694, pl. 55; *Meyer, Sitzb. Ak. Wiss. Wien*, lxx. p. 128; *Salvad. Ann. Mus. Civ. Gen.* x. p. 146, xvi. p. 75; *Gould, B. New Guin.* pt. iv. pl. 7; *Salvad.*

*Orn. Papuasias etc.* ii. p. 319; *Sharpe, Journ. Linn. Soc.* xvi. 1882, p. 438.

*Adult.* Region round the eye and sides of occiput bare; skin behind the gape forming an oval flap; part of cheeks and sides of throat bare, terminating in a broad but short flap; these bare parts orange-yellow in the skin; lores, upper half of cheeks, ear-coverts, throat and upper chest, and anterior half of crown brownish black; on the fore neck a narrow white crescent; occiput and hind neck brown; feathers of the mantle blackish brown, broadly tipped with white; lower back and upper tail-coverts reddish brown; wings and tail brown, edged with olive-yellow; edge of wing, under wing-coverts, inner margin of remiges, breast, and sides of neck fulvous, the feathers of the sides of the neck and breast with large subterminal spots of blackish brown; abdomen and under tail-coverts passing into cream-colour; thighs rusty brown; "bill dark grey; feet lead-colour; iris black" (*D'Albertis*). Culmen 1-1.15 inch, wing 3.8-4.2, tail 3.5-3.9, tarsus 1-1.12.

*Hab.* New Guinea.

*a, b.* ♂; *c.* ♀ ad. sk.      Astrolabe Mountains.      Mr. A. Goldie [C.].

## 18. EUTHYRHYNCHUS.

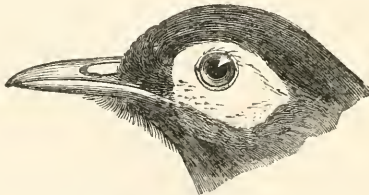
Type.

<i>Euthyrhynchus</i> , <i>Schleg. Ned. Tijdschr. Dierk.</i> iv. p. 39 (1871) .....	<i>E. griseigularis.</i>
<i>Melipotēs</i> , <i>Sclat. P. Z. S.</i> 1873, p. 317 .....	<i>E. gymnops.</i>
<i>Timeliopsis</i> , <i>Salvad. Ann. Mus. Civ. Gen.</i> vii. p. 963 (1875) .....	<i>E. griseigularis.</i>

Bill slightly shorter (*E. gymnops*) or longer than the rest of the head. Nostrils longitudinal, operculated. No bristles. First primary very long. Tip of wing formed by the third to sixth primaries. Tail slightly rounded, and a little longer than the wings. Scales on front of tarsus almost fused. Inner edge of quills fulvous. Length of wing about 3.5 inches.

(For other characters *cf.* the Key to the species.)

*Range.* New Guinea.



Head of *Euthyrhynchus gymnops*.

*Key to the Species.*

- a. Sides of head covered with feathers. (Subgenus EUTHYRHYNCHUS.)
- a'. Crown covered with bristly feathers; upper parts olive-brown; underparts pale rufous. } *griseigularis*, p. 287.
- b'. Crown greyish; rest of upper parts pure olive; breast and throat rufous; flanks, abdomen, and under tail-coverts olive . . . . . } *fulvigularis*, p. 287.
- c'. All the upper parts olive-brown; underparts fulvous; flanks, abdomen, and under tail-coverts brownish . . . . . } *fulviventris*, p. 288.
- b. Sides of head, including auricular region, bare and slightly wattled. (Subgenus MELIPOTES.) *gymnops*, p. 288.

1. *Euthyrhynchus griseigularis*.

*Euthyrhynchus griseigula*, *Schleg. Ned. Tijdschr. Dierk.* iv. p. 39 (1871); *Salvad. Ann. Mus. Civ. Gen.* xii. p. 342, xiv. p. 78; *Rosenb. Malay. Archip.* p. 553; *Salvad. Orn. Papuaasia etc.* ii. p. 341.

*Timeliopsis trachycoma*, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 963 (1875).

“Upper parts olive-brown; underparts pale rufous; forehead and crown covered with short bristly feathers, the shafts of which are fuscous; wings and tail pale brown inclining to rufous, edged with olive; inner margin of remiges fulvous; bill and feet brown. Culmen 0·72 inch, wing 3·6, tail 2·75, tarsus 0·93.” (*Salvadori*.)

*Hab.* New Guinea.

Subspecies a. *Euthyrhynchus flavigularis*.

*Euthyrhynchus flavigula*, *Schleg. Ned. Tijdschr. Dierk.* iv. p. 40 (1871); *Salvad. Ann. Mus. Civ. Gen.* xii. p. 343, xvi. p. 78; *Rosenb. Malay. Archip.* pp. 553, 586; *Salvad. Orn. Papuaasia etc.* ii. p. 341.

*Timeliopsis*, nov. spec.?, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 964 (1875).

Closely resembling *E. griseigularis* but slightly smaller, and with the abdomen slightly tinged with olive. Culmen 0·68 inch, wing 3·13, tail 2·7, tarsus 0·9. (*Salvadori*.)

*Hab.* North-western New Guinea (Geelvink Bay).

2. *Euthyrhynchus fulvigularis*.

*Euthyrhynchus fulvigula*, *Schleg. Ned. Tijdschr. Dierk.* iv. p. 40 (1871); *Salvad. Ann. Mus. Civ. Gen.* xii. p. 343, xvi. p. 78; *Rosenb. Malay. Archip.* pp. 553, 586; *Salvad. Orn. Papuaasia etc.* ii. p. 342.

*Adult.* “Upper parts pure olive; crown and ear-coverts inclining to grey; wings and tail fuscous, externally edged with olive; inner margin of remiges pale fulvous; under wing-coverts fulvous; throat

and breast rufous; flanks, abdomen, and under tail-coverts olive; bill and feet brown. Culmen 0·63 inch, wing 2·7–3·1, tail 2·05–2·22, tarsus 0·81." (*Salvadori*.)

*Hab.* Arfak Mountains.

### 3. *Euthyrhynchus fulviventris*.

*Plectorhyncha fulviventris*, *Ramsay, Proc. Linn. Soc. N. S. W.* 1882, p. 718; *Sharpe, Journ. Linn. Soc.* xvi. 1882, p. 439.

*Euthyrhynchus?* *fulviventris*, *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 425 (1882); *id. Orn. Papuasie etc.* iii. p. 545 (1882).

*Adult.* All the upper parts uniform rusty olive-brown; wings and tail reddish brown, externally washed with the same colour as the back; sides of head and ear-coverts slightly paler than the crown; all the underparts, including the edge of the wing and the wing-coverts and the inner margin of the remiges, uniform fulvous, slightly darker, inclining to brownish, on the flanks, thighs, and under tail-coverts; bill dark brown; feet and claws pale brownish in the skin. Culmen 0·9 inch, wing 3·6, tail 2·5, tarsus 0·98.

*Hab.* South-eastern New Guinea.

*a.* Ad. sk.                      Astrolabe Mountains.                      Mr. A. Goldie [C.]

### 4. *Euthyrhynchus gymnops*.

*Melipotes gymnops*, *Scl. P. Z. S.* 1873, p. 695, pl. 56; *Meyer, Sitzb. Ak. Wiss. Wien*, lxx. p. 19, note (1874); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 776, x. p. 145, xvi. p. 75; *Gould, B. New Guinea*, pt. iv. pl. 8; *Salvad. Orn. Papuasie etc.* ii. p. 317.

*Adult.* Sides of head bare, orange-yellow in the flesh; crown of head and occiput blackish brown, rest of upper parts dark brown, with slightly paler greyish edges to the feathers; wings and tail dark brown, externally edged with dull olive; edge of wing, under wing-coverts, and under tail-coverts pale fulvous; inner margin of quills whitish buff; throat, fore neck, and chest uniform dull blackish brown; the feathers of the breast and flanks more greyish, each feather with an oval terminal patch of cream-colour, this colour becoming predominant on the centre of the abdomen; "bill and iris black; feet lead-colour" (*Salvadori*). Culmen 0·8 inch, wing 4·1, tail 3·5, tarsus 1·15.

*Hab.* North-eastern New Guinea.

*a, b.* ♀ ad. sk.                      Arfak Mountains, January 1876.                      Mr. Bruijn [C.].

## 19. MELIRRHOPHETES.

Type.

*Melirrhophetes*, *Meyer, Sitzb. Ak. Wiss. Wien*, lxx. p. 110 (1874)..... *M. leucostephes*.

Bill slightly longer than the rest of the head; culmen prominent, slightly curved. Nostrils longitudinal, operculated, quite uncovered



by feathers or bristles. Sides of head bare; long wattle extending backwards from the cheek.

(For the other characters *cf.* the description of the species.)

*Range.* New Guinea.



Head of *Melirrhophetes leucostephes*.

### 1. *Melirrhophetes leucostephes*.

*Melirrhophetes leucostephes*, Meyer, *Sitzber. Ak. Wiss. Wien*, lxx. p. 110 (1874); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 776, xvi. p. 75; *id. Orn. Papuasias etc.* ii. p. 320; Gould, *B. New Guinea*, iv. pl. 5.

*Adult.* Forehead, cheeks, and the feathers behind the bare ocular region white; the skin in prolongation of the gape bare and forming a little elevated ridge; the underside of the base of the mandible and the sides of the throat naked, flesh-colour, the skin forming a large and broad wattle on each side; lores and ear-coverts, crown of head, and throat dull black; feathers of the mantle dark brown, broadly edged with pale fawn-colour or whitish; lower back and upper tail-coverts rusty brown; wings and tail brown, externally slightly washed with olive, most of the primaries with narrow whitish tips; feathers of the fore neck and chest white at base, blackish brown towards the tip; breast blackish brown, the sides with broad creamy tips; under tail-coverts creamy; inner margin of remiges pale fulvous; under wing-coverts and edge of wing mottled blackish brown and fulvous; bill and feet whitish blue. Culmen 1.5 inch, wing 5.2-5.4, tail 4.6, tarsus 1.15-1.2.

*Hab.* New Guinea.

a. [♂] ad. sk.	New Guinea.	Purchased.
b. ♂ ad. sk.	Arfak Mountains (Jan. 1876).	Mr. Bruijn [C.].

### 2. *Melirrhophetes ochromelas*.

*Melirrhophetes ochromelas*, Meyer, *Sitzb. Ak. Wiss. Wien*, lxx. p. 111

(1874); *Gould, B. New Guin.* pt. iv. pl. 4; *Salvad. Ann. Mus. Civ. Gen.* xvi. p. 75; *id. Orn. Papuasias etc.* ii. p. 321.

*Adult.* Crown of head black; a narrow superciliary stripe and the tips of the ear-coverts rufous, rest of ear-coverts silvery grey; ocular region naked, the skin and a wattle near the angle of the mouth yellow; wattles on the throat orange-red; mantle brownish; the feathers of the back edged with white; underparts black, a few feathers of the abdomen edged with white; wings and tail brown, externally edged with olive, internally with rufous; bill lead-colour, paler at the tip; feet pale flesh-colour. Culmen 1·35 inch, wing 5·1, tail 4·9, tarsus 1·28.

*Hab.* New Guinea, Arfak Mountains (*Salvadori*).

## 20. PYCNOPYGIUS.

Type.

*Pycnopygius, Salvad. Ann. Mus. Civ. Gen.* xvi. p. 78

(1880)..... *P. stictocephalus*.

Having the appearance of a Bulbul (*Pycnonotus*). The bill rather short, the culmen curved; the wings and tail moderate and equal; feet small. Plumage loose and copious. (*Salvadori*.)

*Range.* New Guinea.

### 1. *Pycnopygius stictocephalus*.

*Pycnopygius?* *stictocephalus, Salvad. Ann. Mus. Civ. Gen.* ix. p. 34 (1876), xii. p. 342.

*Plectorhyncha stictocephalus, Ramsay, Proc. Linn. Soc. N. S. W.* iii. p. 304, iv. p. 100.

*Hemixos bernsteinii, Finsch in Mus. Lugd. (teste Salvadori).*

*Pycnopygius stictocephalus, Salvad. op. cit.* xvi. p. 78 (1880); *id. Orn. Papuas. e Molucche*, ii. p. 340.

*Adult.* "Upper parts earthy brown, underparts paler; wings and tail slightly darker; head blackish brown, the feathers of the crown tipped with bluish white; a white, rather broad moustachial streak extending backwards from the angle of the mouth; throat greyish white; inner webs of the remiges and rectrices margined with fulvous, the shafts of these feathers white below; bill and iris black; feet ashy. Culmen 0·64 inch, wing 4·2, tail 3·6, tarsus 0·9." (*Salvadori*.)

*Hab.* New Guinea and Salwatti.

## ADDENDA.



### Page 8. *Nectarinia pulchella*.

Add:—

<i>d</i> . ♂ ad. sk.	Lokoja, River Niger.	W. A. Forbes, Esq. [P.].
<i>e</i> '. ♂ ad. sk.	Rabba, River Niger.	W. A. Forbes, Esq. [P.].

Page 31. Insert:—

### 5 a. **DREPANORHYNCHUS.**

*Drepanorhynchus*, *Fischer & Reichen. J. f. O.* 1884, p. 6.

The two central tail-feathers decidedly elongated and narrowed in old males; remainder of tail square; bill longer than tarsus and strongly curved. (*Fischer & Reichen. t. c.*)

This genus I have not seen, but it seems to approach *Ethopyga* or at least the *Urodrepanis* section of that genus. The type is described as:—

### ***Drepanorhynchus reichenowi*.**

*Drepanorhynchus reichenowi*, *Fischer, J. f. O.* 1884, p. 6.

Head and entire under surface black; neck and mantle dark brown; lower back and rump and lesser wing-coverts coppery red and greenish; quills, greater wing-coverts, and tail-feathers dark brown with yellow margins. Total length 8·75 inches, wing 3·05, tail 2·4, centre tail-feathers 5·5, culmen 1·15, tarsus 1·05.

*Hab.* Naiwascha Lake, Massai, East Africa.

### Page 42. *Cinnyris venusta*.

Add:—

<i>g, r.</i> ♂ ad. sk.	Lokoja, River Niger.	W. A. Forbes, Esq. [P.].
<i>s, t.</i> ♂ ad. sk.	Shonga, River Niger.	W. A. Forbes, Esq. [P.].

Page 43. Add:—

### 4 a. ***Cinnyris falckensteini*.**

*Cinnyris falckensteini*, *Fischer & Reichen. J. f. O.* 1884, p. 6.

Very similar to *C. affinis*, Rüpp., but with the upper surface, especially the crown, middle of back, and rump, more blue instead of greenish; lower throat deep violet instead of violet-blue; upper throat velvety black, and not the chin only; breast and abdomen

orange instead of pale yellow ; pectoral tufts orange-red instead of orange ; rump and under tail-coverts pale yellow. Total length 4.25 inches, culmen 1.65, wing 2.2, tail 1.05, tarsus 1.1.

*Hab.* Naiwascha Lake, Massai, East Africa.

Page 48. **Cinnyris microrhyncha.**

Add:—

*f, g.* ♂ ♀ ; *h.* ♂ juv. sk.                      Zambesi.                      Sir John Kirk [P.].

Page 51. **Cinnyris splendida.**

Add:—

*c'.* ♂ ad. sk.                      Shonga, River Niger.                      W. A. Forbes, Esq. [P.].  
*d'.* ♂ ad. sk.                      Lokoja, River Niger.                      W. A. Forbes, Esq. [P.].

Page 56. **Cinnyris cuprea.**

Add:—

*h', i'.* ♂ ad. sk.                      Lokoja, River Niger.                      W. A. Forbes, Esq. [P.].

Page 93. **Cinnyris gutturalis.**

Add:—

*g', h'.* ♂ ♀ ad. ;                      Zambesi.                      Sir John Kirk [P.].  
*i'.* ♂ juv. sk.

Page 98. **Cinnyris kirki.**

Add:—

*h.* ♂ ad. sk.                      Zambesi.                      Sir John Kirk [P.].

Page 116. Insert:—

**Anthothreptes orientalis.**

*Anthreptes orientalis*, *Hartl. Abhandl. Nat. Ver. Bremen*, 1881, p. 109.

Distinguished from *A. longuemarii* by its smaller size and by the large metallic green patch on the bend of the wing (*Hartlaub*).

*Hab.* Lado, Equatorial Africa.

Page 119. **Anthothreptes hypodila.**

Add:—

*d'.* ♂ ad. sk.                      Onitscha, River Niger.                      W. A. Forbes, Esq. [P.].

Page 161. **Zosterops japonica.**

Add:—

*f, g, h.* Ad. sk.                      Nagasaki.                      F. Ringer, Esq. [P.].

Page 182. Add:—

**Zosterops eurycricotus.**

*Zosterops eurycricotus*, *Fischer & Reichen. J. f. O.* 1884, p. 6.

Yellowish green, with an extraordinarily broad girdle round the

eyes, consisting of three or four rows of silky-white feathers; lores black; quills greyish black, with yellowish-green edges; tail black. Total length 4.75 inches, culmen 0.45, wing 2.3, tail 1.75, tarsus 0.7.

*Hab.* Foot of Maeru Mountain, Massai country, East Africa.

From this short description it is not possible to insert the species in the "Key."

Page 190. *Zosterops brunneicauda*.

Add:—

a. Ad. sk. Choor (*von Rosenberg.*) Leiden Museum [P.].

Page 190. *Zosterops uropygialis*.

Add:—

a. Ad. sk. Little Ké Island (*von Rosenberg.*) Leiden Museum [P.].

### ÆDISTOMA.

Type.

*Ædistoma, Salvadori, Ann. Mus. Civic. Genov. vii.*

p. 952 (1875) ..... O. *pygmæum*.

Allied to *Melilestes*, but with the bill small, slender and sharp, equalling the length of the head; culmen rather curved, the edges of the mandibles swollen near the angle of the mouth; wings rounded; tail small; tarsi moderate. (*Salvadori.*)

#### 1. *Ædistoma pygmæum*.

*Ædistoma pygmæum, Salvad. Ann. Mus. Civic. Genov. vii. p. 952* (1875), xvi. p. 74 (1880); *id. Orn. Papuasias etc. ii. p. 312.*

Above olivaceous, the sides of the head greyish olive; fore neck whitish grey; upper part of breast tinged with greyish olive; centre of the abdomen and under tail-coverts pale olive-yellow; lateral plumes dense, pale yellow in colour; wings and tail dusky, with olivaceous edges to the feathers; quills margined with whitish internally; under wing-coverts whitish yellow; bill dusky, white at the lower base of the under mandible; feet leaden grey. Total length about 3.1 inches, culmen 0.6, wing 1.75–1.85, tail 0.8–0.9, tarsus 0.55.

*Hab.* N.W. New Guinea.

Count Salvadori has placed this genus between his genera *Glyci-chara* (*Orn. Papuasias, ii. p. 310*) and *Melilestes* (*t. c. p. 312*). Not having seen a specimen, I have not been able to place it systematically, but it probably comes near *Glyciophila*.



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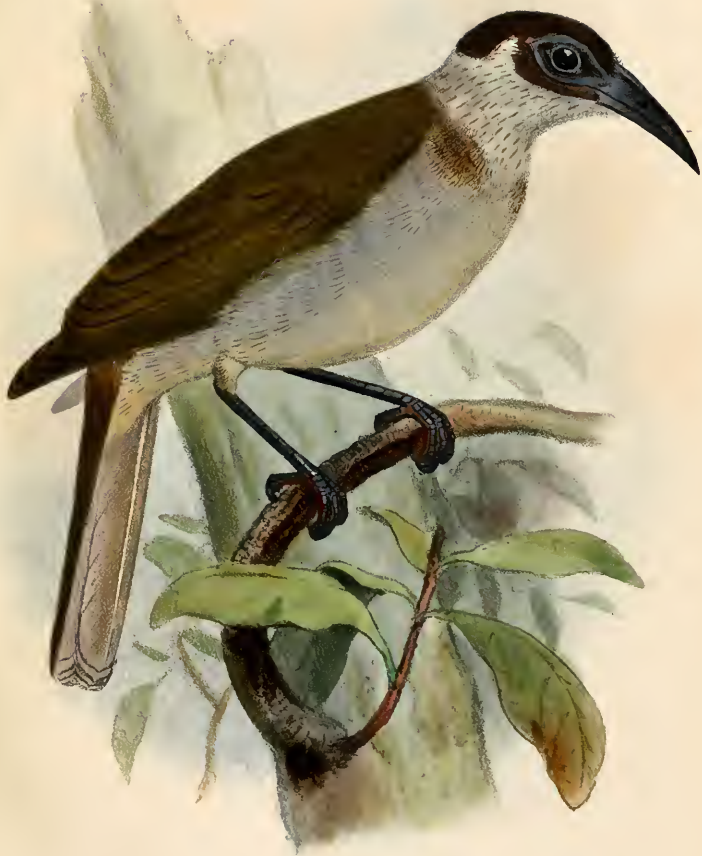


J Smit del et lith.

Mintern Bros imp

1 *Arachnothera polioptera* 2 *Arachnothera iliophus*.





$\frac{1}{2}$

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*Philemon, cacherelli.*





$\frac{1}{1}$











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Minteca, Brazil, 1880

*Ptilotis megalorhynchus.*





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*Ptilotis polygramma*.





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1. *Ptilotis virescens*

2. *Ptilotis limbata*











