

CONTRIBUTIONS TO THE ORNITHOLOGY OF THE
PAPUAN ISLANDS.

By THE HON. WALTER ROTHSCHILD AND ERNST HARTERT.

(Unless signed otherwise, the work of these "contributions" is so divided that Walter Rothschild works out the families *Paradiseidae*, *Ptilonorhynchidae*, and *Rallidae*, while E. Hartert is responsible for the rest.)

VI.*

ON SOME SKINS COLLECTED FROM APRIL TO JUNE ON
MOUNT VICTORIA, OWEN STANLEY MOUNTAINS, MOSTLY AT
ELEVATIONS OF FROM 5000 TO 7000 FEET.

1-9. Of true *Paradiseidae* the collection contained specimens of the following species :—

Craspedophora intercedens, *Lophorina minor*, *Epimachus meyeri*, *Parotia lawesi*, *Paradisea raggiana*, *P. rudolphi*, *Seleucidés nigricans*, *Cicinnurus regius*,
Diphylloides hunsteini. W. R.

10. *Loria loriae* Salvad. (*antea*, p. 252).

Adult *male* and immature *male* from Mount Victoria. The immature *male* has the abdomen, back, and wings mixed with greenish feathers, showing that the young *male* is, in colour, similar to the adult *female*. The wing of the *male* measures 100 mm. W. R.

11. *Cnemophilus macgregorii* de Vis.

Only one adult *male* of this magnificent bird has hitherto been known. It was well described by Mr. de Vis and beautifully figured in the *Ibis*. The present collection contains one adult *male*, wing 106 mm., and a specimen which is evidently an immature *male*. It is olive above, tinged and mixed with pale brownish yellow. Quills with the outer webs pale rufous brown, the inner webs dusky brown, each wing having a few fresh feathers like those of the adult *male*. The tail has a few fresh feathers which are like those of the old *male*, while the rest is dark brown. Underparts black, mixed with yellowish olive feathers on the abdomen, and still more on the throat. The peculiar crest on the forehead is already developed, and has the same beautiful golden sheen in a certain light which is visible in the old *male*. W. R.

12. *Amblyornis inornata* (Schleg.).

Two *males* with crests and two specimens without crests, evidently young *males*, for they differ from *females* from Arfak in having the feathers of the crown and occiput much longer and narrower, and the under wing-coverts of a deeper orange. Undoubted *females* of this form, which I consider identical with *A. inornata* from Arfak (see *antea*, pp. 11-13), are not yet recorded. W. R.

* For Nos. I., II., III. see *antea*, pp. 8-20; for Nos. IV., V., pp. 233-255.

19. *Rhipidura euryura* S. Müll.

At 3000 feet (Büttik., *Notes Leyden Mus.* XV. p. 91). Genus *Neomyias* Sharpe, *Cat. B. Brit. Mus.* IV. p. 342.

20. *Collocalia linchi* Horsf. & Moore.

At 8000 feet.

21. *Gecinus puniceus* (Horsf.).

At 3000 feet. Hargitt, *Cat. B. Brit. Mus.* XVIII. p. 65, has remarked that specimens from the Malay Peninsula, Sumatra, and Borneo have "the orbital region less dusky and the sides of the face and neck of a paler green." This I find not only to be true, but in addition to it I find that the back is more of a *yellowish* green, and the rump much more golden. I therefore think the Java form must be separated as *Gecinus puniceus typicus*, while the birds from Malacca, Borneo, and Sumatra (type) may be called

Gecinus puniceus observandus subsp. nov.

22. *Chotorhea javensis* (Horsf.).

3000 feet.

23. *Cyanops armillaris* (Temm.).

3000 feet. These two barbets are named in this way in the *Catalogue of Birds* (Vol. XIX., Shelley), but I do not consider this generic separation useful or convenient, nor is there sufficient reason for it, I believe.

24. *Ptilinopus porphyreus* (Temm.).

1824. *Columba porphyrea* "Reinw." in Temm., *Pl. Col.* 106.

1827. *C. roseicollis* Wagl., *Syst. Av. Columba*, No. 27.

Mount Arjuno, 3000 feet.

In *Cat. B. Brit. Mus.* XXI. p. 75, Count Salvadori rejected the name *porphyrea* on account of there being a *Columba porphyracea* "Forst." published in 1821; but the two names are different enough, I think, to avoid confusion.

III.—LIST OF THE BIRDS OF BALI.

Doherty writes from Bali, March 12th: "Last night we arrived here from Sumba in a thoroughly exhausted state, partly from hard work under unusually hard conditions, and partly from a storm, the most tremendous I have ever weathered, which made it very difficult for us to get away from Sumba, owing to the surf, and which pursued us almost through Lombok Straits." In April he writes, amongst other things: "I thought Bali would be a great success, and a nice, pleasant, easy place, where we would all get strong. Instead of that, we never have had such constant and varied sickness. Travelling was difficult and dear, and there was no food to be bought. The people hate us all, I think, and in my whole stay I succeeded in buying just two ducks and five young chickens. The ducks cover the land, you know—queer things that walk quite upright. Both Ram Persad and I on different occasions met tigers face to face. There were hardly any butterflies,

though the season should have been right, and the country was beautiful—fine forest of enormous trees, the largest I have seen in the East, I think. Of the birds about one-half are from low country, and the other half from the mountains, mostly from a place named Gitgit, from 2000 to 4000 feet.” With regard to the birds collected in Bali, he writes: “I imagine that the Balinese fauna is very much smaller than the Javanese; many whole genera of conspicuous forms, which one cannot easily overlook, not extending so far East. The problem regarding Bali is, of course, how many forms of the Timor group extend so far West, and whether these forms are the remains of an original fauna of Australian affinities, or are merely immigrants from Lombok, etc. The ancient stratified rocks of Southern Lombok seem to be continued across the large table-topped island of Penida, in Lombok Straits, to the peninsula of Badong, in S.E. Bali, where cockatoos are found, though not commonly. Besides the Balinese birds sent, I also shot *Corvus* (*Corone*) *macrorhynchus* and the magnificent *Aquila* (*Neopus*) *malayensis*, but did not think them worth sending. Of a *Motacilla* we got eight *females* (two sent), but never a *male*.”

The following list is the first list of Bali birds ever published, so far as I know, as Wallace stayed in the island not more than two days, and collected there only a few birds.* This list is therefore particularly interesting, and it is sufficiently large to allow some comparison with the Lombok list, which will follow thereafter.

The very careful notes on the colour of the eyes, bill, feet, etc., of the birds have in nearly every case been copied verbatim, and added in signs of quotation.

From all we can see, the “sexing” is done with the greatest care.

The Bali collection was brought together in March and April.

1. *Geocichla rubecula* Gould.

♂ ad. Bali, low country. “Eyes deep umber; bill black; feet pale brownish horn-colour; claws dark brown” (W. Doherty). - ♂ juv. in first plumage, but wing-quills and rectrices evidently already moulted. Top of the head and back brown, with rusty shaft-stripes; rump and upper tail-coverts uniform brown; chin and upper throat pale rusty; feathers of the chest, breast, and abdomen pale rusty rufous, with bases and tips blackish; under tail-coverts white, blackish at base.

Geocichla rubecula Gould has hitherto only been known from Java. It differs from *G. citrina* of India in being smaller (wing of the Bali skin 110 mm.), of a darker grey above, of a very much deeper rufous on the head and below. Perhaps the white patch on the upper wing-coverts is also larger. The *male* from Bali is like

* I am much obliged to Mr. Wallace, who most kindly gave me the following list of the birds collected by him in Bali on June 13th and 14th, 1856, which I publish here, using his own names. They are: *Copsychus amoenus*, *Oriolus horsfieldi*, *Megalaema rosea*, *Chrysonotus tiga*, *Sturnopastor jalla*, *Ploceus hypoxanthus*, *Munia punctularia*, *Ptilotis limbata*.

A skin of the latter species from the Gould collection has been enumerated in the *Catalogue of Birds*, IX. p. 237, as collected in Bali by Mr. Wallace, but as this author (*Malay Archipelago*, I. p. 203) expressly says that *Meliphagidae* were not found in Bali, I supposed an error with regard to the skin in the Museum, and wrote to Mr. Wallace for an explanation, and this is what he most kindly answered me: “I am very glad you wrote to me about the *Ptilotis limbata*, because I seem myself to have overlooked the fact that I found it in Bali. The reason must be, I think, that I only obtained one specimen there, and by some mistake of my agent it got misplaced from my private collection (which was afterwards placed in the British Museum), and was bought by Mr. Gould. I find in my original notes that *Ptilotis limbata* was obtained by me both in Bali and Lombok, and specimens from both localities should have been kept in my private collection. When I came home, not finding the species among my skins from Bali, I must have forgotten the fact, and thus made the mistake you refer to in my *Malay Archipelago*.”

specimens from Java, and indeed of a very deep rufous colour, perhaps even deeper than most of the Java birds.

I have been inclined to consider *G. rubecula* as merely a subspecies of *G. citrina*, but it can perhaps just as well stand as a species. *G. innotata* Blyth, from Burma, on the other hand, seems to deserve not more than subspecific rank. Cf. Seebohm, *Cat. B. Brit. Mus.* V. pp. 174 and 176; Hartert, *Ornis*, 1891 (p. 2 of article "Ueber eine kleine Vogelsammlung," etc.).

2. *Pratincola caprata* (L.).

Both sexes from the low country. ♂ ad. "Iris deep umber; bill and feet black." ♀. "Iris deep brown."

3. *Phylloscopus borealis* (Blas.).

These birds were still common in March in the low country. They are quite typical, I think, but one of them is a perfect giant, with the wing fully 76 mm., while the other five skins have their wings only 64 to 72 mm. long, the larger ones evidently being *males*. "Iris deep brown; feet greenish olive."

4. *Copsychu saularis amoenus* (Horsf.).

Both sexes from the low country. An immature *male* from Bali, of this form, was collected by Wallace, and is in the British Museum. The specimens from Bali are pure *amoenus*, quite black below, except some white tips to the under tail-coverts and a few white feathers on the sides of the vent. The three outer rectrices are nearly quite white. "Iris dark brown."

5. *Enicurus leschenaulti* (Vieill.).

♂, 2000 to 3000 feet. "Iris very deep brown; bill black; feet pinkish white."

6. *Pomatorhinus montanus* Horsf.

Three skins, from 2000 to 3000 feet. They are exactly like those from Mount Arjuno in East Java. See *antea*, p. 539. "Iris pale yellow; bill pale orange; culmen black near the base; feet dark greenish."

7. *Turdinus (Trichostoma) sepiarius* Horsf.

2000 to 3000 feet. "Iris light red-brown; feet dull slate-colour; maxilla blackish; mandible pale slaty grey with dark line below."

8. *Brachypteryx leucophrys* (Temm.).

An adult *female* and a young *male*, between 2000 and 3000 feet. The young bird has rusty spots to the centres of the feathers above, the feathers of the breast rusty with dark margins.

9. *Cyanoderma melanothorax* (Temm.).

Myiothera m., Temm., *Pl. Col.* II. pl. 185; *Cyanoderma m.*, Sharpe in *Notes Leyden Museum* VI. (1884); *C. m.*, Vorderm. in *Tijdschrift Nederl. Ind.* 1885, p. 338.

Two *males* of this rare bird were shot in Bali, one in the low country, one between 2000 and 3000 feet. "Iris dark red-brown; bill black above, bluish below;

a large blue naked patch on each side of the neck." This latter character is very well visible in the skins. While the skin is whitish in other places of the body, these bare patches are slaty black in the skins. It is partly on this peculiarity that Count Salvadori founded his genus *Cyanoderma*, the "type" being *C. erythropterum*, which has also a dark blue patch of skin on the side of the neck. Much more is this found in *Macronus ptilosus*, and it seems suggestive of being blown up at times. This blue patch of skin is not found in *Mixornis* proper, and the bill in the latter is less straight and the nostrils differently shaped and much more open. It is therefore advisable to separate *Cyanoderma* from *Mixornis*. On the other hand, the Indian species *ruficeps*, *rufifrons*, and *pyrrhops* have no bare blue patch on the neck, and agree in the bill and nostrils more with *Cyanoderma* than with *Mixornis*. They are best separated as *Stachyridopsis* Sharpe (see Oates, *Fauna Brit. Ind. Birds* I.), but the three genera *Mixornis*, *Cyanoderma*, *Stachyridopsis* are closely allied and must be placed close together. With regard to Dr. Vorderman's description of his specimen from Mount Salak, it must be said that the black spots on the side of the neck do *not* join those of the crop-region, but are widely separated, part of the skin between being naked and blue. Otherwise Vorderman's description is very good.

10. *Orthotomus sepium* Horsf.

Low country. ♂. "Iris very pale reddish brown; feet of the same colour."

11. *Prinia familiaris* Horsf.

Common in the low country. "Eyelids red; feet pale reddish; bill black."

12. *Parus atriceps* Horsf.

1 ♀ ad., 1 ♂ juv., 2000 to 3000 feet and low country. ♀ ad. "Iris very dark brown; bill black; commissure brown; feet pale slaty blue." In every respect like *Parus atriceps typicus* from Java. The young bird is tinged with yellow on the abdomen.

13. *Dicaeum flammeum* (Sparrm.).

Met with in the low country.

14. *Dicaeum trigonostigma* (Scop.).

A single *male* from between 2000 and 3000 feet. It is somewhat pale below, but this is probably only an individual character.

15. *Cinnyris pectoralis* (Horsf.).

Low country and 2000 to 3000 feet. "Iris deep brown; bill and feet black."

16. *Anthreptes malaccensis* (Scop.).

In the low country and between 2000 and 3000 feet. The *females* (two) are grey above, like the Eastern form (*A. m. chlorogaster*), but they are in abraded plumage and some new feathers are greenish. The *male* is not at all like the Eastern form, but quite like *A. m. typica*.

17. *Arachnothera affinis* (Horsf.).

2000 to 3000 feet. "Iris dark brown; bill blackish, paler, and somewhat reddish below; feet pale purplish reddish."

18. *Zosterops fallax* Sharpe.

Between 2000 and 3000 feet. "Iris light brown ; feet greenish yellow ; soles pale orange."

19. *Criniger gularis* (Horsf.).

Low country and 2000 to 3000 feet. "Iris scarlet; feet rufous grey; beak slaty blackish, pale horn-colour below." The *males* have considerably larger beaks and longer wings.

20. *Pycnonotus analis* (Horsf.).

In the low country. "Iris dark brown ; bill and feet black."

21. *Aegithina tiphia scapularis* (Horsf.).

Common in the low country. "Iris pale yellowish ; feet slaty blue ; bill slaty blue, darker on the culmen."

22. *Motacilla flava* L.

Two from the low country.

23. *Mirafra javanica* Horsf.

One *male*, low country. In rather abraded plumage. It may possibly be *M. parva*?

24. *Ploceus manyar* (Horsf.).

Not rare in the low country. ♂ ad. "Iris umber-brown ; bill nearly black ; feet pale brown, slightly reddish."

25. *Munia oryzivora* (L.).

Low country. "Iris scarlet ; bill basally purple-pink, terminally bluish horn ; feet and eyelids pale purple-pink."

26. *Munia maja* (L.).

Low country and between 2000 and 3000 feet. Common. "Iris very deep brown ; bill pale blue ; feet slaty blue."

27. *Uroloncha leucogastroides* (Horsf. & Moore).

2000 to 3000 feet. "Iris deep brown."

28. *Calornis chalybea* (Horsf.).

Several skins from Bali, 2000 to 3000 feet, gave me considerable trouble. They are somewhat dark in colour, have very small beaks, the culmen measuring only 19 mm., the bill from the tip to the beginning of the nostril 11 mm., the wing 95 to 98 mm. They have much smaller bills than any of the specimens before me from Sumatra, the Malay Peninsula, Cachar, and the Natuna Islands (these latter having the largest beaks), but they agree with a skin collected in Java by Messrs. Geisler. There is no doubt that *C. chalybea affinis* Hay is a good subspecies, though connected with *C. c. typica* of Java by many intermediate forms.

29. *Gracupica tertia* sp. nov.

♂ ad. *Gracupica* capite, collo, gastraeo toto subcaudalibusque, remigibus ad basin, tectricibus primariis, basi apicibusque rectricum (duabus mediis paullum modo), subalaribus albis; notaeo schistaceo-griseo, remigibus rectricibusque nigris, secundariis caudaque, aeneo splendentibus. L. t. ca. 210 mm.; al. 131; caud. 80; culm. 25; tars. 24 mm.

One single *male*, Bali, low country.

This excellent new species differs from *Gracupica melanoptera* (Daud.), an inhabitant of Java, in having the entire back, rump, upper wing- and upper tail-coverts slaty grey instead of white. There is also a mixture of grey on the flanks, and the feathers on the sides of the body and the lower abdomen have grey bases.

30. *Eulabes javanensis* (Osbeck) *typicus*.

At 2000 to 3000 feet. "Beak orange, yellow at the tip; feet and wattles yellow" (W. D.).

31. *Artamus leucogaster* (Valenc.).

2000 to 3000 feet.

32. *Dicrurus cineraceus* (Horsf.).

Low country and 2000 to 3000 feet. "Iris scarlet; beak and feet black."

33. *Dicrurus longus* Bp. (?).

There are several skins of a *Dicrurus*, very much like *D. ater* Herm. from India, but evidently much smaller, with shorter tail and wings, although all the skins are moulting, and it is, therefore, not worth while to give detailed measurements. If, as I have no doubt, the Java bird differs from *D. ater* of India, the name *D. longus* must stand for it, as there is no reason at all why *D. macrocerus* of Vieillot should "pertain to the Java bird alone." The Bali birds belong most likely to the form inhabiting Java. Cf. Walden, *B. Burma*, p. 129; Sharpe, *Cat. B. Brit. Mus.* III. p. 246. The iris of the Bali specimens is dark red-brown; bill and feet black.

34. *Chibia bimaënsis* (Bp.).

Both sexes from low country. ♀. "Iris deep brown; bill and feet black." This is one of the invaders from the Timor group into the Balinese fauna.

35. *Oriolus maculatus* Vieill.

♂ ♀. 2000 to 3000 feet and in the low country.

36. *Crypsirhina varians* (Lath.).

In the low country. "Iris bright light blue; bill and feet black." Another specimen: "Iris pearl-white, transparent bluish towards the pupil."

37. *Lanius bentet* Horsf.

A good series from the lowlands. "Iris dark brown; bill black; base of mandible pale." Like specimens from Java. It seems that Sumatran specimens are mostly (or all?) paler rufous on the rump and upper tail-coverts.

38. *Lanius superciliosus* Lath.

Low country.

39. *Pachycephala grisola* (Blyth).

An evidently very old pair from the low country. The outer webs of the primaries very greyish. "Iris deep brown; bill black; feet slate-blue."

40. *Hemipus obscurus* (Horsf.).

In the low country and between 2000 and 3000 feet. "Iris dark brown; bill and feet black."

41. *Lalage timoriensis* (S. Müll.).

Quite a series of this species from the low country. It is one of those forms of the Timor group which, regardless of Wallace's line, trespass into the Javan group, to which Bali zoologically belongs. "♂ ad. Iris dark brown; bill and feet black."

42. *Graucalus javensis* (Horsf.).

Low country and at about 2000 feet. One specimen marked ♂ and one marked ♀ do not differ, except that the latter has some whitish fringes to the feathers of the rump and upper tail-coverts, and the lores dark slaty grey, while they are much darker, almost black, in the *male*. One example, sex uncertain, has the abdomen narrowly banded with grey, the lores ashy grey. "Iris rich brown, or light reddish brown; bill and feet black." The Bali specimens do not differ from those from Java.

43. *Pericrocotus exsul* Wall.

Low country and 2000 to 3000 feet. ♂. "Iris dark brown; feet and bill black." ♀. "Iris dark brown; feet and bill black."

44. *Pericrocotus peregrinus* (L.).

Low country, common.

45. *Muscicapula hyperythra* (Bl.).

2000 to 3000 feet. ♂. "Iris deep brown; beak black; feet pale pinkish."

46. *Muscicapula westermanni* Sharpe.

♂, 2000 to 3000 feet. "Iris very dark brown; bill and feet black."

47. *Siphia elegans* (Temm.).

Mount Arjuno, at 3000 feet. Under tail-coverts nearly but not quite white; lower abdomen white in the middle. The skin mentioned by me in *Ornis*, 1891, is perhaps an immature *male*.

48. **Rhinomyias pectoralis baliensis** subsp. nov.

♂ and ♀ ad. Very similar to *Rh. pectoralis typicus* from Borneo and Sumatra, but the whole upper surface distinctly less rufous, more with a greenish olive hue, the rump without any rufous wash, ear-coverts paler and more greyish. Wing 77—79 mm.; tail 64—65. “Iris dark brown; bill brownish black; feet pale purplish.” Juv. With rusty spots like most young flycatchers.

Bali, low country and 2000 to 3000 feet.

49. **Hypothymis azurea** (Bodd.).

Low country and 2000 to 3000 feet. “Iris deep brown.”

50. **Cryptolopha trivirgata** (Temm.).

An adult *male*, from 2000 to 3000 feet. “Iris dark brown; feet slaty, soles pale orange; bill black; mandible reddish below.” This specimen is perfectly similar to *C. trivirgata* from Java, though the wing is rather long, measuring fully 61 mm.

51. **Culicicapa ceylonensis** (Sw.).

Three specimens. 2000 to 3000 feet.

52. **Rhipidura javanica** (Sparrm.).

Low country and 2000 to 3000 feet. “Iris dark brown; bill and feet black.”

53. **Eucichla cyanura** (Bodd.).

Not rare in the low country. ♂ ad. “Iris deep brown; bill black; feet slaty grey.” ♀ ditto. The ground-colour below of this *female* is not white, as described in *Cat. B. Brit. Mus.* XIV. p. 446, but yellowish buff, and the throat is more white. The young bird is of a duller brown above; the feathers of the crown are blackish, with rusty centres; the underparts dull brown. “Iris dark brown.”

54. **Macropteryx longipennis** (Rafin.).

♂ ad., shot in the low country. “Iris dark umber-brown; feet blackish; bill black.” Wing 174 mm.

55. **Caprimulgus affinis** Horsf.

Four *females* and one immature *male* from the low country. ♀ ad. “Iris deep brown; bill reddish brown, with blackish tip; feet dull reddish.”

56. **Gecinus vittatus** (Vieill.).

Low country and 2000 to 3000 feet. “Iris dull red; maxilla black; mandible ochreous, tip blackish; feet dirty greenish.”

57. **Chrysocolaptes strictus** (Horsf.).

♀ ad., low country. “Eye scarlet; maxilla brown, with distinct transverse dark lines; base, commissure, and mandible dirty yellowish green; feet green.”

58. *Tiga javanensis* (Ljung).

An adult *female*. "Iris moderately dark red-brown." A young *male* in fullest moult, shot in the low country. "Iris dark brown; feet bluish; maxilla mostly black; mandible bluish white." This is one of the few species which were shot and preserved by Wallace on his memorable visit to Bali. The bill seems a little larger in these birds than in skins from Borneo before me.

59. *Dendrocopus analis* (Horsf.).

A series from the low country, quite like the Java birds. ♂ and ♀. "Iris dark red-brown; maxilla pale slaty grey; mandible slaty grey in the middle, whitish on the sides."

60. *Thriponax javensis* (Horsf.).

♂, low country. "Iris pale yellow; maxilla black; mandible blackish at tip, whitish horn-colour towards the base."

61. *Merops philippinus* L.

Low country.

62. *Melittophagus leschenaulti* (Vieill.).

Common in the low country.

63. *Alcedo ispida bengalensis* (Gm.).

One *female*, low country. "Iris deep brown; feet coral-red; maxilla black; mandible red; claws black." This specimen is rather bright bluish above, almost as blue as *A. ispidioides* Less. It seems almost fully to agree with *A. ispida* var. *taprobana* Kleinschmidt, *Ornith. Monatsber.* II. p. 126, and is very closely allied to *A. ispida floresiana* (Sharpe), *Cat. B. Brit. Mus.* XVII. p. 151. In fact these birds seem to bridge over to *A. ispidioides* Less.*

64. *Alcedo meninting* Horsf.

Three fine specimens from the low country. Two, marked ♂, have the cheeks blue, while the third, *also marked* ♂, has the cheeks chestnut-rufous. It is evidently younger, as its bill is much shorter; beak with the tip pale, *but the rest black*; the bands on the head are greenish blue, not deep blue as in the two others; the back of a much paler blue. This last specimen has on the label: "Beak black, tip whitish; feet pale orange; iris deep umber-brown." The other two *males*: "Beak black, extreme base dark red; feet and claws coral-red; iris deep brown." †

* From the material now in the Tring Museum it seems evident that *A. ispidioides* is not more than a subspecies, connected with *A. ispida bengalensis* by intermediate forms. Skins from Sambawa (Guillemard coll.) agree in every respect with the bright bird from Bali, which seems to me inseparable from the very remarkable *A. ispida* var. *taprobana*, which is not rare in Ceylon; nevertheless *A. ispida bengalensis*, the usual paler Indian form, is also not uncommonly found in Ceylon.—WALTER ROTHSCHILD.

† It is this species, *A. meninting* Horsf., and not *A. beavani* (if the latter is more than a subspecies!), which extends to Celebes, whence we have a number of skins. The specimens enumerated by Sharpe in *Cat. B. Brit. Mus.* XVII. p. 161, at the end of the list of specimens of *A. beavani*, seem to be *A. meninting*, and were probably enumerated on p. 161, instead of on the foregoing page, by a mistake.—WALTER ROTHSCHILD.

65. *Ceyx innominata* Salvad.

In the low country. ♂. "Iris dark brown; bill and feet coral-red." ♀. "Feet pale orange; maxilla dusky with orange tip." This *female* has the inner secondaries somewhat darker and the wing 1.5 or 2 mm. shorter than the *males* from Bali. I do not see signs of immaturity in any of them.

66. *Halcyon sanctus* Vig. & Horsf.

Bali, low country. "Iris dark brown."

67. *Halcyon chloris* (Bodd.).

Low country. Quite typical, though with rather much white on the occiput.

68. *Halcyon cyaniventris* (Vieill.).

A ♂, shot in the low country. "Beak vermilion; iris dull brown; feet scarlet."

69. *Xantholaema australis* (Horsf.).

In the hills between 2000 and 3000 feet. "Iris dark brown; feet greenish, soles ochreous; bill black."

70. *Xantholaema rosea* (Dumont).

In the low country, not rare. "Iris dark brown; bill black; feet orange."

71. *Cyanops armillaris* (Temm.).

♂ ♀, shot at 2000 or 3000 feet. "Iris pale yellow; feet greenish; bill black." These two birds have the forehead deeper orange than the three Java birds in the Tring Museum, but it is doubtful whether this is a constant character or not.

72. *Cyanops lineata* (Vieill.) *typica*.

Not rare in the low country. "Iris pale brown; skin round eyes bright ochreous; feet ochreous, soles whitish; bill pale reddish corneous."

73. *Anthracoseros convexus* (Temm.).

Low country. ♂. "Iris dull umber-brown; feet slate-blue; skin round eye rather greenish; beak yellowish horn-colour, forepart of casque rather darker shaded."

74. *Cacomantis merulinus* (Scop.) and *C. threnodes* Cab. & Heine.

Both these forms, the pale and small *C. merulinus*, with the grey of the head and throat distinctly separated, and the larger and darker *C. threnodes* of Cabanis & Heine, from Bali, low country as well as 2000 to 3000 feet. Whether they are the same species or not, or different stages, I cannot say; but I must say that the explanation given by Shelley on pp. 269, 270, of Vol. XIX. of the *Cat. B. Brit. Mus.*—*i.e.* that *C. merulinus* inhabits drier countries, while *C. threnodes* frequents localities with a greater amount of rainfall—is not satisfactory, as both are found in the same places. I should not wonder if they turned out to be species after all.

A male *C. merulinus* has the "iris scarlet; bill blackish above, pale reddish below; gape orange; feet ochre-orange, claws black." A large *C. threnodes*, also a male: "Iris red-brown inwardly, paling outwardly; eyelid bright ochreous; feet ochreous, claws blackish."

75. *Surniculus lugubris* (Horsf.).

♀. ad. 2000 to 3000 feet. "Iris dark brown; feet very dark slaty blue; bill black." Wing 128 mm.

76. *Cuculus intermedius* Vahl.

♂. Low country. "Iris ochreous yellow; eyelids lemon; maxilla black; mandible horn-colour with blackish tip; feet ochreous, soles rich ochre, claws darker." Wing 210. Rather long-winged, but undoubtedly *C. intermedius*.

77. *Centropus javanicus* (Dumont).

An immature male, rather pale above, but otherwise typical; shot in low country.

78. *Phoenicophaes (Rhinococcyx) curvirostris* (Shaw).

Not rare in the low country. ♀. "Beak bright yellowish green; lower mandible and base of commissure black; iris bright ochreous; space round eye rich scarlet; feet slaty blackish." Exactly like Javan specimens.

79. *Palaeornis alexandri* (L.).

Specimens from the low country. ♂. "Iris pale yellow; bill orange-red; feet greenish."

80. *Glaucidium castanopterum* (Horsf.).

♂, 2000 to 3000 feet. "Eye bright yellow; bill greenish, yellowish at tip; feet greenish yellow."

81. *Phodilus badius* (Horsf.).

One female from the low country. It is like one from Malacca in the Tring Museum, while one from Sikkim is very much larger. The bird is described from Java. Doherty describes the feet as dirty brownish white, the iris as deep brown.

82. *Treron (Osmotreron) griseicauda* Gray.

Low country and up to 3000 feet. ♂ ad. "Iris orange; skin round eye yellow; bill yellow, basally bluish green; feet beet-red." ♀ ad. "Eye orange, skin round it bluish green; beak terminally pale yellow, basally dark bluish."

83. *Carpophaga williami* sp. nov.

Carpophaga similis speciei *C. lacernulata* dictae, sed capite supra saturate grisescente-vinaceo, collo pectoreque summo concoloribus, gula vinacea. Al. ♀ 194, ♂ 207 mm.

Hab. Bali.

A *male* and a *female* of this fine new pigeon have been sent by Mr. William Doherty, who collected them between 2000 and 3000 feet in Bali. He describes the eye as "dark red-brown; feet magenta; beak black." The top and sides of the head are deep greyish vinous, paler on the forehead; sides of the head also slightly paler. Chin pale vinous with a slight greyish tinge. Fore-neck and breast greyish vinous, a little more greyish than the head; abdomen paler and a little more vinaceous. Thighs grey with only a faint vinaceous tinge. Under tail-coverts chestnut. Rest of upper parts dark brown with a slight greyish and metallic greenish gloss, slaty and somewhat purplish on the rump. Tail above like the back, tips dusky grey for about 43 mm., a little darker at the edges. Tail below much paler, tips almost whitish. Under wing-coverts dark slaty grey. ♂. Wing 207 mm.; tail 160; culmen from end of feathering to tip 19; tarsus 26, feathered for two-thirds; middle toe without claw 30 mm. The *female* is like the *male*, but a little smaller (wing 194 mm.); top of head and hind-neck deeper vinous. Named in honour of my friend William Doherty.

I first thought that the name *Ducula concolor*, Bonaparte in *Compt. Rend.* XLIII. p. 836 (1856), was referable to this species. I wrote to Professor Reichenow for particulars about the type of *D. concolor*, which the author said he had seen in the Berlin Museum, but I was informed that no specimen of a pigeon in the Berlin Museum under that name was to be found, nor was there a specimen answering the description. As Bonaparte's description is insufficient and not clear, and as he says it came from the same country as *C. lacernulata*, *i.e.* Java, his name cannot be referred to any species with certainty, and *D. concolor* must for the present remain with a query among the synonyms of either *C. lacernulata* (where it has been placed by Salvadori, *Cat. B. Brit. Mus.* XVI. p. 215) or *C. williami*.

84. *Ptilinopus albocinctus baliensis* subsp. nov.

Mr. Doherty sent three skins from Bali, shot in heights of 2000 to 3000 feet, in April. They differ from the type of *P. albocinctus* in the British Museum in having the wing a little shorter, the upper surface and especially the greater wing-coverts with a purplish coppery gloss, the back just behind the grey of the neck with a greenish bronzy gloss. All these characters are found in *P. albocinctus typicus*, of which I have a large series before me now, but only in immature individuals. I see no reason to assume that the three birds from Bali are immature, and therefore think that they belong to a slightly differentiated, and perhaps a little degenerated, form of *P. albocinctus*. Wing 150—153 mm. This species was hitherto only known from Flores, but inhabits, as the collections now under my hands prove, all the islands between Flores and Java. According to Doherty the iris of the Bali form is orange-red, the feet vermilion, the beak ochreous, basally bluish. It seems to be rare in Bali, where it evidently reaches its most westerly home, and where it should rather not occur, according to Wallace's theory.

85. *Ptilinopus melanocephalus* (Forst.)

One *female* juv., shot on the coast. "Iris ochreous; feet purplish crimson."

86. *Macropygia emiliana* Bp.

Low country, Bali. "Iris successively crimson, blackish, and yellowish white in concentric rings, the crimson one being the outermost one; beak brown, dark red at base; feet dark purplish red."

87. *Macropygia ruficeps* (Temm.).

One *male*, low country. "Iris white; beak reddish brown, dark at tip; feet dull beet-red, soles dark ochreous." This specimen belongs probably to my *M. ruficeps orientalis*, described on p. 573 from Sambawa. See my remarks there.

88. *Chalcophaps indica* (L.).

Bali, from the low country up to 3000 feet. "Iris deep rich brown; beak orange; feet dark red." One fine *male* shows partial albinism, having the bases of the longer upper wing-coverts snow-white.

89. *Geopelia striata* (L.).

Low country.

90. *Turtur tigrinus* (Temm.).

Common in the low country of Bali. I cannot perceive the slightest differences in birds from Malacca to Celebes. "Eye pink-white or salmon; feet dark red, claws blackish."

91. *Turnix taigoor pugnax* (Temm.).

♀, low country. "Iris dull whitish; beak ochreous at base, paler at tip; feet dull ochreous."

92. *Gallus varius* (Shaw & Nodd.).

At 2000 feet.

93. *Tringoides hypoleucus* (L.).

Low country.

94. *Rallina fasciata* (Raffl.).

Low country.