D. ANGUINUM. *D.* spira inæquali angulata aculeata, sulco longitudinali perforata.

Rumph. 125. t. 41. f. H. Solen anguinus.

Lang. Test. 6. Tubulus vermicularis crista dentata.

Testa albida, teretiuscula, angulis 9 obsoletis. Anfractus inæquales, nunc confertiores, nunc remotiores. Sulcus longitudinalis in superiore latere perforatus serie punctorum. Spinæ breves, fornicatæ ad angulos in latere inferiore.

Condensation, that peculiar faculty of the mental organization of Linnæus, induced him to suppress this description, and attach the species, as a variety, to the form he had simultaneously characterized as

D. spira elongata, teretiusculum, inerme, fissura longitudinali.

Gualt. test. 10. f. z.

To this latter the published details belong, except the expression "passim concatenata et quasi poris pertusa" (which was a subsequent and fallacious addition), and the account of the variety.

S. PENIS. *D.* teres, extremitate radiata disco cylindris poroso.

"Bonan. i. f. 38.", indicated in the tenth edition of the 'Systema', was among the synonyms. The "Stigma, &c." was an addition; so too were "lævis," "tubulosis", and "æqualibus". The term "hemisphærico" has replaced the earlier "convexo."

In addition to the published species, the *S. Spirorbis* of the 'Systema' appears to have been indicated as

D. PLANORBE. *D.* spira plana, adhærens.

It. W. Goth. 170. Dentalium testa spirali plana adhærente.

Planc. Conch. 13. n. 3. Vermiculus in littore Veneto foliis algæ adhærens.

Testa minima, magnitudine nuper ab ovo exclusæ cochleæ, cujus formam omnino gerit, at plana omnino est, et altero latere omnino fuci foliis adhæret.

This was evidently different from the *Serpula planorbis* of the 'Systema.'

Catalogue of the Dipterous Insects collected at Makessar in Celebes, by Mr. A. R. WALLACE, with Descriptions of New Species. By FRANCIS WALKER, Esq., F.L.S.

(Read June 2nd, 1859.)

Fam. CULICIDÆ, *Haliday.*

Gen. MEGARHINA, *Desvoidy.*

1. MEGARHINA IMMISERICORS, n. s. *Mas.* Nigra, squamosa, capite thoraceque viridibus, hujus disco cupreo, proboscide palpis pedibusque purpureis, femoribus subtus fulvis, tarsis intermediis albo bifas-

ciatis, tarsis posticis albo unifasciatis, pectore argenteo, abdomine cyaneo fasciculis lateralibus albis subapicalibus nigris apicalibus auratis, alis subcinereis apud costam nigricantibus.

Male. Black. Head and thorax with green metallic scales; disc of the latter with cupreous scales. Proboscis, palpi, and legs purple; femora tawny beneath; middle tarsi with two white bands; hind tarsi with one white band. Pectus silvery. Abdomen blue, widening from the base to the tip, with small white tufts of hairs along each side; four larger black subapical tufts, two gilded apical tufts. Wings slightly greyish, blackish along the costa; veins black. Length of the body 5 lines; of the wings 8 lines.

Gen. Culex, *Linn.*

2. Culex obturbans, n. s. *Fœm.* Nigricans, thoracis disco fusco, abdomine cupreo apice viridescente, gutta subapicali alba, fasciis ventralibus latis albis, pedibus subcupreo squamosis, femoribus subtus albis, alis cinereis.

Female. Blackish. Proboscis pale; its sheaths dark, longer than the thorax. Disk of the thorax with brown tomentum. Abdomen with cupreous tomentum, and with a slight greenish tinge towards the tip; a white subapical dot; underside with broad white bands. Legs with a cupreous tinge; femora whitish beneath. Wings grey; veins black, fringed. Length of the body $2\frac{3}{4}$ lines; of the wings $4\frac{1}{2}$ lines.

3. Culex impatibilis, n. s. *Mas.* Subcupreo-niger, capite albo punctato, pectore albo guttato, abdomine fasciis interruptis albis, genubus albis, femoribus posticis albis apice nigris, tarsis intermediis basi albis, tarsis posticis albo bifasciatis, alis cinereis.

Male. Black, with a very slight cupreous tinge. Head with shining white points. Sheaths of the proboscis dark tawny, longer than the thorax. Pectus with shining white dots. Abdomen with interrupted shining white bands, which are most complete beneath. Knees white; hind femora white, with black tips; middle tarsi white at the base; hind tarsi with two white bands. Wings cinereous; veins black, fringed. Length of the body 2 lines; of the wings 3 lines.

4. Culex impellens, n. s. *Fœm.* Fuscus, subtus testaceus, proboscide nigricante albo-fasciato, pedibus pallidis, femoribus albidis apice obscurioribus, tarsorum articulis basi albis, alis cinereis.

Female. Brown, testaceous beneath. Proboscis blackish, with a white band, a little longer than the thorax. Legs with pale reflections; femora whitish, with darker tips; joints of the tarsi white at the base. Wings grey; veins black, fringed. Length of the body $2\frac{1}{2}$ lines; of of the wings 4 lines.

Gen. Anopheles, *Meigen.*

5. Anopheles vanus, n. s. *Mas.* Cinereo-fuscus, gracilis, antennis

late plumosis, pedibus testaceis longis gracillimis, tarsorum articulis basi albis, alis subcinereis antice nigro punctatis.

Male. Cinereous brown, slender. Proboscis full half the length of the body. Palpi nearly half the length of the body. Antennæ broadly plumose. Legs testaceous, long, very slender; joints of the tarsi white at the base. Wings slightly cinereous, with black points on the fore part; veins black, fringed. Length of the body $2\frac{1}{2}$ lines; of the wings 4 lines.

Fam. TIPULIDÆ, *Haliday*.

Gen. Limnobia, *Meigen*.

The following species, in the structure of the wing-veins, does not accord with any of Meigen's divisions of the genus. The mediastinal vein ends at about three-fourths of the length of the wing; the subcostal ends at seven-eighths of the length, and is connected with the radial by a transverse veinlet at its tip; the radial, the cubital, and the 1st and the 3rd externo-medial are long and of equal length; the 2nd externo-medial springs from the 1st, at one-fourth of its length; the 3rd externo-medial is connected by a transverse veinlet near its base with the subanal.

6. Limnobia imponens, n. s. Ochracea, palpis antennisque nigricantibus, his thoracis dimidio brevioribus, thorace antico valde elongato et attenuato, abdomine piceo, alis subcinereis longis angustis, stigmate nigricante longissimo, halteribus piceis basi testaceis.

Ochraceous. Proboscis, palpi, and antennæ blackish, the latter moniliform setaceous, not half the length of the thorax. Thorax much elongated and attenuated in front. Abdomen piceous. Wings greyish, long narrow; veins black, testaceous at the base and along the costa from the base to the stigma, which is blackish and very long; halteres piceous, testaceous at the base. Length of the body 7 (?) lines; of the wings 16 lines.

Gen. Tipula, *Linn*.

7. Tipula infindens, n. s. *Fœm.* Fusca, capite apud oculos subtusque cinereo, antennis basi testaceis thorace brevioribus, thorace vittis quatuor ochraceis, abdominis apice ochraceo, pedibus fulvis longissimis, femoribus apice fuscis, alis cinereis apud costam luridis.

Female. Brown. Head cinereous about the eyes and beneath. Antennæ setaceous, submoniliform, testaceous at the base, shorter than the thorax. Thorax with a slight cinereous tinge, and with four dull ochraceous stripes. Abdomen ochraceous at the tip. Legs tawny, slender, very long; tips of the femora brown. Wings cinereous, lurid along the costa to the stigma, which is brown; veins black, tawny at the base. Length of the body 10 lines; of the wings 24 lines.

8. TIPULA INORDINANS, n. s. *Mas.* Fusca, capite pallide cinereo vitta fusca, antennis testaceis thorace valde longioribus, articulis basi nigris nodosis setigeris thorace vittis quatuor pallide cinereis, abdominis lateribus ventreque testaceis, segmentis basi nigro postice albomarginatis, pedibus nigris longissimis, femoribus dimidio basali testaceis apices versus albo fasciatis, tibiis albo fasciatis, tarsis albo bifasciatis, alis hyalinis striga costali subapicali nigricante, venis transversis nigro nebulosis.

Male. Brown. Head pale cinereous, with a brown stripe. Antennæ testaceous, slightly setaceous, much longer than the thorax; joints at the base black, nodose, setigerous. Thorax with four pale cinereous stripes; pectus pale cinereous. Abdomen testaceous beneath and along each side, thickened towards the tip; segments whitish at the base, black along the hind borders. Legs black, slender, very long; femora testaceous for half the length from the base, with a white subapical band; tibiæ with a white band beyond the middle; tarsi with two broad white bands. Wings hyaline, with a blackish costal subapical streak; veins and stigma black, the latter small; transverse veins and forked subapical vein clouded with black; veins testaceous. Length of the body 9 lines; of the wings 16 lines.

Gen. CTENOPHORA, *Fabr.*

9. CTENOPHORA INCUNCTANS, n. s. *Mas.* Atra, capite thoraceque læte ochraceis, antennarum ramis longis æqualibus subpilosis, abdomine basi ochraceo. *Fœm.* Thoracis disco saturate ochraceo. *Var.* β. Capite thoraceque saturate ochraceis, alis albido strigatis et guttatis.

Deep black. *Male.* Head and thorax bright ochraceous. Antennæ with long equal slightly pilose branches. Abdomen ochraceous at the base. *Female.* Disc of the thorax deep ochraceous. *Var.* Head and thorax deep ochraceous. Wings with five whitish streaks and two exterior elongated whitish dots. Length of the body 8–10 lines; of the wings 18–22 lines.

10. CTENOPHORA GAUDENS, n. s. *Mas et Fœm.* Læte ochracea, abdomine apicem versus nigro, pedibus nigris, femoribus ochraceis apice nigris, tibiis fascia basali candida, alis nigricantibus basi ochraceis, fascia exteriore albida.

Male and Female. Bright ochraceous. Abdomen black towards the tip. Legs black; femora ochraceous, black towards the tips; tibiæ with a snow white basal band. Wings blackish, ochraceous at the base, with a whitish exterior band which is attenuated hindward. *Male.* Antennæ with long, equal, slightly pilose branches. Length of the body 7–10 lines; of the wings 14–16 lines.

Fam. STRATIOMIDÆ, *Haliday*.

Gen. PTILOCERA, *Wied*.

11. Ptilocera smaragdina. *Walk. Dipt.* pt. 3. 525.

Inhabits also the Philippine Islands.

12. PTILOCERA SMARAGDIFERA, n. s. *Mas.* Nigra, thorace pubescente vittis duabus smaragdinis, lateribus purpurascentibus, abdomine nigricanti-cyaneo squamis lateralibus viridibus, tarsis basi obscure rufescentibus, alis subhyalinis, dimidio basali antice nigricante postice cinereo.

Male. Black. Thorax thickly pubescent, purplish along each side, with two emerald green dorsal stripes. Abdomen blackish blue, with green scales along each side. Tarsi dark reddish towards the base. Wings nearly hyaline; basal half blackish in front, cinereous hindward; veins black, yellow along the costa exteriorly. Length of the body 5 lines; of the wings 8 lines.

Gen. HERMETIA, *Latr*.

13. HERMETIA REMITTENS, n. s. *Mas et Fœm.* Nigra, capite antico livido, antennis basi subtus lividis apice albis, thorace vittis tribus cinereis, abdomine æneo-nigro, tibiis basi tarsisque albidis, alis nigricantibus basi subhyalinis. *Mas.* Abdominis dimidio basali livido.

Male and Female. Black. Head livid in front; a whitish line along the eye on each side of the front. Antennæ livid beneath towards the base; apical joint elongate-fusiform, white at the tip, as long as all the other joints together. Thorax with 3 indistinct cinereous stripes. Abdomen slightly bronzed, livid for half the length from the base in the male. Tibiæ at the base and tarsi whitish. Wings blackish, nearly hyaline at the base; halteres livid. Length of the body 78 lines; of the wings 12–14 lines.

Gen. STRATIOMYS, *Geoffr*.

14. STRATIOMYS IMMISCENS, n. s. *Mas.* Nigra, antennis fulvis parvis, scutelli margine postico spinisque pallide flavis, abdomine pallide flavo fasciis tribus dorsalibus latis nigris postice excavatis, pedibus flavescentibus, femoribus tibiisque nigro fasciatis, tarsis nigris, alis limpidis.

Male. Black. Head beneath and thorax with whitish down. Antennæ tawny, short. Scutellum along the hind border and spines pale yellow. Abdomen pale yellow, with three broad black dorsal bands, whose hind borders are much indented. Legs yellowish; femora and tibiæ with black bands; tarsi black. Wings limpid; veins brown; halteres pale. Length of the body 6 lines; of the wings 10 lines.

15. STRATIOMYS FINALIS, n. s. *Fœm.* Nigra, aureo-tomentosa, capite

subtus fulvo, antennis fulvis parvis, thorace vittis tribus nigris, thoracis margine postico spinisque pallide flavis, abdomine fulvo, pedibus pallide fulvis, alis limpidis.

Female. Black with gilded tomentum. Head tawny beneath, with two more or less tawny calli above the antennæ, which are tawny and short. Thorax with three black stripes; scutellum with the hind border and the spines pale yellow. Abdomen tawny, paler beneath. Legs pale tawny. Wings limpid; veins tawny; stigma testaceous. Length of the body 4 lines; of the wings 8 lines.

Gen. Clitellaria, *Meigen.*

16. Clitellaria festinans, n. s. *Mas.* Nigra, aureo-tomentosa, antennis rufescenti-fulvis apices versus nigris, thorace fascia vittisque duabus aureis, scutelli spinis apice rufescenti-fulvis, abdomine vittis tribus macularibus aureis, pedibus luteis, alis luteis postice cinereis apice nigricantibus.

Male. Black, thick, with gilded down. Antennæ nearly as long as the breadth of the head; scape reddish tawny, fusiform, longer than the flagellum, which is black and lanceolate. Thorax and pectus with an interrupted downy band; thorax with two downy stripes, and with two lateral black spines; scutellum with a downy border, and with two stout spines, whose tips are reddish tawny. Abdomen with three rows of downy spots; the middle spots triangular; the lateral spots oblique. Legs and halteres luteous. Wings luteous along the costa, cinereous hindward, where the veins are bordered with black; tips broadly blackish; a black dot adjoining the luteous stigma. Length of the body 6 lines; of the wings 12 lines.

Fœm.? Nigra, cinereo-tomentosa, antennis scapo intus fulvo, thoracis vittis duabus abdominisque maculis cinereis, femoribus tibiisque albidis apices versus nigris, tarsis basi albidis, alis obscure cinereis fascia lata subapicali nigricante.

Female? Black. Head shining, with white tomentum about the eyes. Antennæ shorter than the breadth of the head; scape linear, tawny on the inner side, much shorter than the flagellum, which is lanceolate. Thorax with two stripes of cinereous tomentum and with two lateral spines; scutellum with two stout spines; pectus with silvery cinereous tomentum. Abdomen with cinereous tomotose spots, which are disposed in three rows. Femora and tibiæ whitish black towards the tips; tarsi whitish at the base. Wings dark grey, with a broad blackish subapical band; veins and stigma black; halteres whitish. Length of the body 5 lines; of the wings 10 lines.

17. Clitellaria gavisa, n. s. *Mas.* Nigra, albido-tomentosa, antennis testaceis apices versus nigris, thorace vittis duabus aureis, scutelli spinis apice flavis, abdomine vittis tribus macularibus aureis, pedibus flavis apices versus nigricantibus.

Male. Black, with whitish down. Antennæ shorter than the breadth of the head; scape testaceous, longer than the flagellum, which is

pilose. Thorax with two stripes of gilded tomentum, and with two lateral spines; spines of the scutellum yellow towards their tips. Abdomen with three rows of gilded tomentose spots, the dorsal spots triangular; the lateral spots oblique. Legs yellow; tarsi black towards the tips. Wings cinereous, blackish towards the tips and about the transverse veins; veins black, yellow towards the base; halteres yellow. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

Fœm.? Cinereo-tomentosa, thoracis vittis abdominisque maculis cinereis, pedibus albidis, femoribus tibiis tarsisque apice nigris alis cinereis, fascia subapicali nigricante.

Female? With cinereous tomentum. Head white and shining about the eyes. Stripes of the thorax and spots of the abdomen cinereous. Legs whitish; femora, tibiæ and tarsi black towards the tips. Wings cinereous with a blackish subapical band.

Gen. Oxycera, *Meig.*

18. Oxycera manens, n. s. *Mas et Fœm.* Nigra, cinereo-subtomentosa, antennis fulvis, pedibus pallide fulvescentibus aut lividis, alis vix cinereis. *Mas.* Thorace aureo-subtomentoso.

Male and Female. Black, slightly covered with cinereous tomentum. Head white and shining about the eyes. Antennæ tawny. Thorax of the male slightly covered with gilded tomentum. Legs dull pale tawny or livid; hind tibiæ black. Wings hardly cinereous; veins and stigma pale in the male, black in the female. Length of the body 3 lines; of the wings 7 lines.

Gen. Sargus, *Fabr.*

19. Sargus repensans, n. s. *Mas.* Testaceus, pubescens, vertice nigro, palpis lanceolatis, arista nigra, tibiis tarsisque posticis nigris, his albo cinctis, tarsis anterioribus apice nigris, alis cinereis apices versus nigricantibus.

Allied to S. aurifer.

Male. Testaceous, pubescent. Vertex black. Palpi lanceolate, extending along two-thirds of the space between the mouth and the antennæ; arista black. Hind tibiæ and hind tarsi black, the latter white towards the tips, which are black; anterior tarsi with black tips. Wings cinereous, blackish towards the tips; veins black, testaceous at the base. Length of the body 9 lines; of the wings 20 lines.

20. Sargus remeans, n. s. *Fœm.* Niger, pubescens, thorace purpurascente-nigro, vittis duabus lateralibus pectoris disco tibiisque anterioribus supra sordidè albidis, alis nigricantibus. *Mas.*? Antennis piceis, thorace purpurascente-cupreo, pectore livido, abdominis segmentis albido-marginatis, alis fuscescente, cinereis extus albido-strigatis.

Allied to S. tenebrifer.

Female. Black, pubescent. Head wanting. Thorax purplish black, with a dingy whitish stripe along each side; disk of the pectus dingy whitish. Anterior tibiæ dingy whitish above. Wings blackish; veins black; halteres dingy whitish, with blackish knobs. Length of the body 9 lines; of the wings 20 lines.

Male? Black. Head whitish about the mouth. Antennæ piceous. Thorax purplish cupreous, with a dingy whitish stripe along each side; pectus livid. Abdomen with two lanceolate apical appendages; hind borders of the segments whitish. Wings brownish cinereous, with slight whitish streaks on the exterior areolets. Length of the body 7 lines; of the wings 16 lines.

21. Sargus redhibens, n. s. *Fœm.* Cyaneus, antennis fulvis, thoracis lateribus anticis purpurascentibus, abdomine purpureo, pedibus albidis, tibiis posticis femoribusque nigricante strigatis, alis cinereis. *Var.* β. Vertice purpureo, thorace viridi.

Female. Blue. Antennæ tawny. Thorax purplish on each side in front. Abdomen purple, much broader than the thorax. Legs whitish; femora with a blackish streak above towards the tips; hind tibiæ with a blackish apical streak. Wings cinereous; veins black; stigma blackish. Halteres tawny. *Var.* β. Vertex purple. Thorax green. Length of the body $3\frac{1}{2}$–4 lines; of the wings 7–9 lines.

This may be a local variety of *S. metallinus*, but differs from that species by the dark marks on its hind legs, and by the wing-veins being black at the base.

22. Sargus mactans, n. s. *Fœm.* Cupreo-viridis, abdomine cupreo, pedibus testaceis, tibiis posticis basi nigris, alis cinereis apices versus obscurioribus.

Female. Cupreous green, with cinereous down. Head wanting. Abdomen cupreous. Legs testaceous; hind tibiæ black for half the length from the base. Wings cinereous, darker from the discal areolet to the tips; veins black; stigma brown; halteres testaceous. Length of the body $4\frac{1}{2}$ lines; of the wings 10 lines.

23. Sargus inactus, n. s. *Mas.* Albido-testaceus, vertice nigro, thoracis disco scutellique apice purpureis, pectore maculis duabus cupreis, alis cinereis.

Male. Whitish testaceous. Vertex black. Disk of the thorax and scutellum towards the tip purple; pectus with a cupreous spot on each side. Wings cinereous; veins black; stigma dark brown; discal areolet shorter than that of the two preceding species. Length of the body 5 ? lines; of the wings 10 lines.

Gen. Nerna, *Walk.*

24. Nerna impendens, n. s. *Mas et Fœm.* Nigra, cinereo-subtomentosa, antennis tarsis posterioribus halteribusque testaceis, tarssi

anticis tibiisque piceis, alis cinereis apud costam exteriorem nigricantibus.

Male and Female. Black, with very slight cinereous pubescence. Antennæ, posterior tarsi, and halteres testaceous; tibiæ and fore tarsi piceous. Wings cinereous, blackish along the exterior part of the costa; veins and stigma black. Length of the body $3\frac{1}{2}$ lines; of the wings 6 lines.

Gen. Solva, n. g.

Corpus lineare. *Proboscis* lanceolata. *Palpi* porrecti, lineares, caput non superantes. *Antennæ* lanceolatæ. *Scutellum* inerme. *Abdomen* thorace longius. *Pedes* breviusculi, femoribus posticis incrassatis subserratis. *Alæ* sat angustæ.

Body linear. Head not broader than the thorax. Proboscis lanceolate. Palpi porrect, linear, rounded at the tips, not extending beyond the head. Antennæ lanceolate, shorter than the breadth of the head; joints indistinct. Thorax with a humeral callus and a linear callus on each side. Scutellum unarmed. Abdomen rather longer than the thorax. Legs rather short; hind femora incrassated, minutely serrated beneath; hind tibiæ very slightly curved, applied to the femora. Wings rather narrow; 1st and 2nd cubital veins rather long; length of the discal areolet more than thrice its breadth; 3rd and 4th externo-medial veins connected towards the border; anal and subanal veins connected at some distance from the border.

25. Solva inamœna, n. s. *Fœm.* Cinereo-nigra, palpis, thoracis callis, scutello, abdominis lateribus, ventre pedibusque testaceis, antennis testaceis apice nigris, abdominis segmentis testaceo marginatis, alis subcinereis.

Female. Cinereous black. Mouth, palpi, calli of the thorax, scutellum, abdomen beneath and along each side except at the base, legs, and halteres testaceous. Antennæ testaceous except towards the tips. Hind borders of the abdominal segments testaceous. Wings greyish; veins black, testaceous towards the base. Length of the body $2\frac{1}{2}$–3 lines; of the wings 5–6 lines.

Gen. Ampsalis, n. g.

Fœm. Corpus elongatum, sublineare. *Antennæ* filiformes; flagellum lineare. *Thorax* longi-ellipticus; scutellum bispinosum. *Abdomen* ellipticum, thorace paullo latius non longius. *Pedes* longiusculi. *Alæ* angustæ.

Female. Body elongate, nearly linear. Head a little broader than the thorax. Eyes prominent. Palpi very short. Antennæ filiform, much longer than the breadth of the head; flagellum linear, about twice the length of the scape; joints indistinct. Thorax elongate-elliptical; scutellum armed with two obliquely ascending spines. Abdomen

elliptical, a little broader but not longer than the thorax. Legs rather long. Wings narrow; 1st cubital vein about one-fourth the length of the 2nd; four externo-medial veins complete; subanal vein curved, joining the anal vein at some distance from the border; discal areolet elongated and attenuated exteriorly; exterior side very short.

26. AMPSALIS GENIATA, n. s. *Fœm.* Ferrugineo-fusca, antennis nigris basi fulvis, thorace vittis duabus testaceis, scutello testaceo, apice spinisque et pectoris disco nigris, abdomine nigro, basi vittis duabus interruptis lateralibus pedibusque testaceis, alis cinereis apices versus fuscescentibus.

Female. Ferruginous brown. Antennæ black, tawny towards the base. Thorax with two testaceous stripes; scutellum testaceous; tip and spines black. Disk of the pectus black. Abdomen black; base and an interrupted stripe along each side testaceous. Legs and halteres testaceous. Wings grey, brownish in front towards the tips; veins black, testaceous at the base; stigma testaceous. Length of the body 6 lines; of the wings 11 lines.

Gen. TRACANA, n. g.

Mas et Fœm. Corpus elongatum. *Proboscis* lanceolata. *Antennæ* graciles, filiformes, capite transverso vix breviores. *Thorax* longi-ellipticus; scutellum bispinosum. *Abdomen* thorace paullo longius et latius. *Pedes* longiusculi. *Alæ* longæ, non latæ.

Male and Female. Body elongate. Head rather broader than the fore part of the thorax. Mouth lanceolate; palpi very short. Antennæ slender, filiform, about as long as the breadth of the head; 3rd joint long; 4th and following joints shorter. Thorax elongate-elliptical, with a distinct linear callus along each side; scutellum armed with two obliquely ascending spines. Abdomen elongate-elliptical, most attenuated towards the base, a little broader and longer than the thorax. Legs rather long. Wings long, not broad; 1st subcubital vein hardly one-third the length of the 2nd; four externo-medial veins complete; subanal vein curved, joining the anal vein near the border; discal areolet oblong, narrower exteriorly; exterior side very short.

27. TRACANA ITERABILIS, n. s. *Mas et Fœm.* Cinereo-nigra, capite antico fulvo, antennis albido-flavis basi nigricantibus, pedibus fulvis, tibiis posticis femoribusque nigro-fuscatis, alis cinereis apices versus nigricantibus. *Mas.* Abdomine fulvo maculis lateralibus nigris. *Fœm.* Abdominis basi lateribusque fulvis.

Male and Female. Cinereous black. Head in front and calli of the thorax tawny. Antennæ whitish yellow, blackish at the base. Legs tawny; femora and hind tibiæ banded with black. Wings grey, blackish towards the tips; veins black; halteres tawny. *Male.* Abdomen tawny, with some black spots on each side. *Female.* Abdomen tawny

at the base and along each side. Length of the body 5 lines; of the wings 10 lines.

Gen. Rosapha, n. g.

Mas et Fœm. *Corpus* angustum, elongatum, lineare. *Antennæ* graciles, filiformes, capite transverso longiores; articulus 3^us^ fusiformis. *Scutellum* spinis duabus longis acutis armatum. *Abdomen* thorace vix longius aut latius. *Pedes* breves. *Alæ* angustæ.

Male and Female. Body narrow, elongated, linear. Mouth and palpi extremely short. Antennæ slender, filiform, longer than the breadth of the head; 3rd joint long, fusiform; joints of the flagellum indistinct. Thorax nearly linear, a little narrower in front; scutellum armed with two long, acute, hardly ascending spines. Abdomen subfusiform, narrowest towards the base, very little broader and longer than the thorax. Legs short. Wings narrow; 1st cubital vein nearly half the length of the 2nd; three complete externo-medial veins; subanal vein curved, joining the anal vein at some little distance from the border; discal areolet oblong; exterior side short.

28. Rosapha habilis, n. s. *Mas et Fœm.* Fulva, capite antennisque nigris, his basi fulvis, thoracis macula antica elongata, spinis apice, tibiis posticis apices versus tarsisque anterioribus nigris, tarsis posticis albis apice nigris, alis cinerascentibus apices versus nigris. *Fœm.* Abdomine supra nigro, basi lateribusque fulvis.

Male and Female. Tawny. Head black, white beneath along the eyes. Antennæ black; 1st, 2nd, and 3rd joints tawny. Thorax with an elongated black spot in front; spines of the scutellum black towards the tips. Hind tibiæ towards the tips and anterior tarsi black; hind tarsi white with black tips. Wings greyish, blackish in front towards the tips; veins black, tawny at the base; stigma ferruginous brown. *Female.* Abdomen black above, except at the base and along each side. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

Gen. Ruba, n. g.

Fœm. *Corpus* breve, crassum, latum. *Caput* parvum. *Antennæ* capite transverso vix breviores. *Scutellum* inerme. *Abdomen* globosum, thorace valde latius. *Pedes* breves. *Alæ* mediocres.

Female. Body thick, short, broad. Head much narrower than the thorax. Proboscis and palpi very short. Antennæ nearly as long as the breadth of the head; 3rd joint broader and longer than the flagellum, of which the joints are short, compact, and minutely setulose. Thorax a little longer than broad; scutellum unarmed. Abdomen globose, very much broader and a little longer than the thorax. Legs short. Wings moderately broad; 1st cubital vein not one-third of the length of the 2nd; four complete externo-medial veins; subanal

vein curved, joining the anal vein at some distance from the border; discal areolet elongated exteriorly, irregularly triangular; exterior side very short.

29. RUBA INFLATA, n. s. *Mas.* Testacea, valde pubescens, capite subtus guttis duabus nigris, alis sub-cinereis apices versus fuscescentibus, stigmate flavescente.

Male. Testaceous. Head with a black dot on each side of the mouth. Flagellum of the antennæ black. Thorax and abdomen very pubescent. Wings slightly greyish, brownish towards the tips, and especially so in front; veins black, testaceous at the base; stigma yellowish. Length of the body 4 lines; of the wings 7 lines.

Gen. TINDA, n. g.

Fœm. Corpus longiusculum, depressum. *Caput* oblongum, margine postico elevato. *Antennæ* capite transverso vix breviores; articulus 3^{us} fusiformis; flagellum compressum, lanceolatum. *Scutellum* spinosum. *Abdomen* ellipticum, thorace latius non longius. *Pedes* breves, graciles. *Alæ* angustæ.

Female. Body somewhat elongated and depressed. Head somewhat oblong; eyes nearly contiguous in front, diverging hindward, where there is an elevated margin. Mouth and palpi very short. Antennæ nearly as long as the breadth of the head; 3rd joint fusiform, fully half the length of the flagellum, which is compressed and lanceolate, and with indistinct joints. Thorax slightly widening hindward; scutellum with six? very minute spines. Abdomen elliptical, broader but not longer than the thorax. Legs short, slender. Wings narrow; 1st cubital vein less than one-third the length of the 2nd; three complete externo-medial veins; subanal vein joining the anal vein at some distance from the border; discal areolet elongated, its exterior side very short.

30. TINDA MODIFERA, n. s. *Fœm.* Nigra, antennis basi testaceis, pedibus testaceis, femoribus posterioribus supra obscurioribus, alis cinereis costam versus subnigricantibus.

Female. Black, hardly shining. Antennæ testaceous towards the base. Legs testaceous; posterior femora somewhat darker above, except towards the base. Wings grey, slightly blackish along most of the costa; veins black; halteres testaceous. Length of the body 3 lines; of the wings 5 lines.

Gen. SARUGA, n. g.

Mas. Corpus contractum, breve, latum, crassum. *Vertex* gibbosus. *Oculi* magni. *Antennæ* brevissimæ; articulus 3^{us} rotundus; arista apicalis, gracillima. *Thorax* gibbosus; scutellum elevatum, conicum, postice productum. *Abdomen* transversum, thorace brevius. *Pedes* breves, graciles, simplices. *Alæ* breviusculæ.

Male. Body contracted, short, broad, thick. Head almost as broad as the thorax; vertex gibbous; eyes large, bare; mouth extremely short and small; antennæ very short, 3rd joint round; arista apical, very slender, a little longer than the antennæ; thorax gibbous; scutellum very gibbous, forming an upright cone, somewhat gibbous and conical hindward, where it is horizontal; abdomen a little broader than long, much shorter than the thorax; legs short, slender, simple; wings rather short; veins in structure like those of *Oxycera*.

31. Saruga conifera, n. s. *Mas.* Anthracina, antennis pedibusque albido-testaceis, thorace maculis duabus magnis flavo-tomentosis, femoribus nigris, genibus fulvis, alis albidis.

Male. Coal-black; antennæ and legs whitish testaceous; thorax with a large yellow tomentose spot on each side in front of the scutellum; femora black; knees tawny; wings whitish vitreous; veins and stigma whitish testaceous, the former black towards the base. Length of the body 2½ lines; of the wings 5 lines.

Fam. TABANIDÆ, *Leach.*

Gen. Tabanus, *Linn.*

32. Tabanus succurvus, n. s. *Fœm.* Nigricanti-fuscus, capite ferrugineo, callo longo lanceolato gracillimo, palpis piceis, antennis nigris, segmentorum abdominalium marginibus posticis subpallidioribus, tibiis subtus rufescenti-piceis, alis obscure cinereis apud venas fuscescentibus.

Female. Blackish brown. Head ferruginous, with a long lanceolate and very slender callus between the nearly contiguous eyes; under side clothed with black hairs. Proboscis black. Palpi piceous. Antennæ black; 3rd joint with a small horn. Hind borders of the abdominal segments slightly paler in the middle. Tibiæ reddish piceous beneath. Wings dark grey, brownish about the veins towards the base; veins black, piceous towards the base; fore branch of the cubital vein simple, nearly straight; halteres ferruginous, with luteous knobs. Length of the body 11 lines; of the wings 22 lines.

33. Tabanus factiosus, n. s. *Fœm.* Nigricanti-fuscus, capite testaceo, callo nigro gracili lanceolato, palpis piceis, thorace cinereo, abdomine rufescenti-piceo, maculis dorsalibus trigonis albidis, segmentorum ventralium marginibus posticis testaceis.

Female. Blackish brown. Head with testaceous tomentum and with a slender lanceolate black callus between the eyes. Proboscis black; palpi piceous. Antennæ with a very small horn. Thorax with cinereous down; pectus paler and more thickly clothed with paler down. Abdomen reddish piceous, with a whitish triangular spot on the hind border of each segment; hind borders of the ventral segments testaceous. Legs piceous; femora black; tibiæ tawny beneath. Wings grey, with a brownish tint in front; veins black, ferruginous towards

the base; fore branch of the cubital vein simple, nearly straight; halteres ferruginous, with whitish-yellow knobs. Length of the body 10 lines; of the wings 22 lines.

34. TABANUS REDUCENS, n. s. *Fœm.* Cinereo-niger, capite albido, callo nigro longo clavato, palpis albidis, antennis nigris vix dentatis, thorace vittis quatuor cinereis, abdomine vittis tribus albidis, segmentis ventralibus albido marginatis, tibiis fulvis apice nigris, alis cinereis striga subcostali nigricante, halteribus piceis apice testaceis.

Female. Cinereous black. Head whitish, clothed with white hairs beneath; callus black, long, clavate; palpi whitish; antennæ black, with an extremely small tooth; thorax with four cinereous stripes; pectus cinereous; abdomen with three whitish stripes, the dorsal one much more conspicuous than the lateral pair; hind borders of the ventral segments whitish; tibiæ tawny with black tips. Wings cinereous, with a blackish sub-costal streak; veins black; fore branch of the cubital vein simple, nearly straight; halteres piceous, with luteous knobs. Length of the body 10 lines; of the wings 20 lines.

35. TABANUS SPOLIATUS, n. s. *Mas.* Cinereo-niger, albido tomentosus, capite cinereo, palpis testaceis, antennis nigris basi rufescentibus vix dentatis, thoracis lateribus fulvescentibus, abdomine rufescente maculis dorsalibus trigonis albidis, segmentis ventralibus albido marginatis, tibiis rufescentibus nigro lineatis, alis cinereis apud costam fuscescentibus, halteribus albidis.

Allied to T. UNIVENTRIS and to T. INTERNUS, but distinct.

This may prove to be the male of *T. reducens*, though it is very different in appearance. *Male.* Cinereous black, with whitish tomentum, which is visible when viewed horizontally; head cinereous; palpi testaceous, very short; antennæ black, reddish at the base, with an extremely small tooth; thorax dull-tawny along each side; abdomen reddish, with a small triangular whitish spot on the hind border of each segment; hind borders of the ventral segments whitish; tibiæ reddish with a black line; wings cinereous, brownish along the costa; veins black, ferruginous at the base; fore branch of the cubital vein simple, nearly straight; halteres whitish. Length of the body 9 lines; of the wings 16 lines.

36. TABANUS IMMIXTUS, n. s. *Fœm.* Cinereo-niger, capite albido, callo nigro longo angusto sublineari, palpis albidis, antennis nigris basi rufis vix dentatis, abdomine ferrugineo apice nigro maculis trigonis marginibusque posticis testaceis, tibiis fulvis, alis cinereis apud costam subluridis, halteribus testaceis.

Female. Cinereous black; head whitish; callus long, black, slender, nearly linear; palpi whitish; antennæ black, red at the base; tooth extremely small and obtuse; abdomen ferruginous, black towards the tip; each segment with a triangular spot and the hind border testaceous; tibiæ tawny; wings cinereous, slightly lurid along the costa;

veins black, ferruginous at the base; halteres testaceous. Length of the body 6 lines; of the wings 12 lines.

37. Tabanus flexilis, n. s. *Fœm.* Cinereus, testaceo tomentosus, callo nigro longo gracillimo, palpis testaceis, antennis ochraceis subdentatis apice nigris, abdomine ferrugineo fusco maculis dorsalibus trigonis marginibusque posticis testaceis, tibiis basi fulvis, alis cinereis apud costam subluridis fusco bifasciatis, halteribus testaceis apice albis.

Female. Cinereous, with testaceous tomentum; head with a black, long, extremely slender callus; palpi testaceous; antennæ ochraceous, with black tips and with a very small black tooth; pectus whitish; abdomen ferruginous brown; each segment with a large triangular spot and with the hind border testaceous; tibiæ tawny towards the base; wings cinereous, somewhat lurid along the costa, with two irregular brown bands; 1st band short, discal, 2nd abbreviated hindward; veins black, ferruginous at the base; fore branch of the cubital vein simple, nearly straight; halteres testaceous with white tips. Length of the body 8 lines; of the wings 16 lines.

Gen. Chrysops, *Meigen.*

38. Chrysops fasciatus, *Wied.* See Vol. I. p. 112.

Fam. ASILIDÆ, *Leach.*

Subfam. Mydasites, *Walk.*

Gen. Mydas, *Fabr.*

39. Mydas basifascia, n. s. *Fœm.* Atra, antennis clavatis, abdomine fascia basali flava apice nitente, femoribus tibiisque posticis rufescentibus, alis cinereis apud venas ochraceis.

Female. Deep black; antennæ clavate, a little longer than the breadth of the head; abdomen with a slender yellow band very near the base, shining at the tip; hind femora and hind tibiæ reddish; wings cinereous, ochraceous about the veins, which are also ochraceous. Length of the body 12 lines; of the wings 22 lines.

Subfam. Dasypogonites, *Walk.*

Gen. Discocephala, *Macquart.*

40. Discocephala pandens, n. s. *Mas.* Picea, proboscide palpisque nigris, pectore thoracisque lateribus albidis, abdomine subtus pallide cinereo maculis lateralibus nigris, pedibus fulvis, genibus nigris, tarsis piceis, alis fuscescentibus cinereo strigatis et marginatis, halteribus albidis. *Fœm.* Abdomine fulvo, alis cinereis.

Male. Piceous; front facets of the eyes large; proboscis and palpi black; mystax with four bristles; pectus and sides of the thorax whitish; abdomen beneath pale-cinereous, with black shining spots along each side; legs tawny; trochanters and knees black; tarsi piceous; wings

brownish, cinereous along the hind border, and with cinereous streaks in the disks of the areolets; halteres whitish. *Female*. Abdomen and halteres tawny; wings cinereous. Length of the body 4–5 lines; of the wings 10–12 lines.

Subfam. Laphrites, *Walk.*

Gen. Laphria. *Fabr.*

41. Laphria concludens, n. s. *Fœm.* Aurata, capite pilis flavis, antennis flavis articulo 3° rufescente fusiformi, thorace vittis tribus nigris, abdomine fulvo lituris duabus fasciaque interrupta fasciisque duabus ventralibus nigris, pedibus fulvis, alis cinereis apud apices nigricantibus, halteribus pallide flavis.

Female. Gilded; head clothed with pale-yellow hairs; mystax with several bristles; proboscis linear, tawny; antennæ yellow; 3rd joint reddish, elongate fusiform; thorax with 3 black stripes, the lateral pair abbreviated; abdomen tawny; 4th and 5th ventral segments with black bands; 4th dorsal segment with a slight black mark on each side; 5th with a widely interrupted black band; legs tawny; wings cinereous, blackish towards the tips; veins black, ferruginous towards the base; halteres pale yellow. Length of the body 11 lines; of the wings 20 lines.

42. Laphria Vulcanus, *Wied.* See Vol. I. p. 10.

43. Laphria Taphius, *Walk. Cat. Dipt.* pt. 2, 380.

Inhabits also the Philippine Islands.

44. Laphria requisita, n. s. *Mas et Fœm.* Viridis, capite aurato, antennarum articulo 3° longi-fusiformi, femoribus posticis incrassatis, alis nigricantibus basi et apud costam cinereis, halteribus testaceis. *Mas.* Femoribus anterioribus incrassatis, halteribus ex parte nigricantibus. *Fœm.* Abdomine purpurascenti-cyaneo basi viridi.

Male and Female. Green; head gilded in front, with whitish hairs beneath; mystax with a few black bristles; third joint of the antennæ elongate-fusiform; hind femora incrassated. Wings blackish, cinereous near the base and along nearly half the length of the costa; veins black; halteres testaceous. *Male*. Anterior femora incrassated; halteres partly blackish. *Female*. Abdomen purplish blue, green towards the base. Length of the body 7–9 lines; of the wings 14–16 lines.

45. Laphria partita, n. s. *Mas.* Nigra, capite aurato, antennarum articulo 3° sublineari, thorace lineis tribus cinereis, lateribus ochraceo-pilosis, maculis duabus humeralibus testaceis, abdomine apice cyanescenti-nigro dimidio basali ochraceo-piloso, pedibus aurato-pilosis, femoribus incrassatis, alis nigricantibus dimidio basali fere sublimpido, halteribus testaceis. *Fœm.* Antennarum articulo 3° longi-fusiformi,

maculis duabus humeralibus albidis, abdomine nigricanti-cupreo, dimidio basali cinereo piloso.

Male. Black; head brightly gilded above, clothed with luteous hairs beneath; mystax with some black bristles; 3rd joint of the antennæ nearly linear, conical at the tip, a little longer than the 1st and the 2nd together; thorax with three slender cinereous lines; sides with ochraceous hairs; two humeral testaceous spots; abdomen bluish-black towards the tip; 1st, 2nd, and 3rd segments with ochraceous hairs; legs with gilded hairs and with black bristles; femora incrassated, especially the hind pair; wings blackish, almost limpid for nearly half the length from the base, which is partly blackish; the blackish part emitting some streaks into the limpid part; veins black; halteres testaceous. *Female.* Third joint of the antennæ elongate fusiform; two humeral whitish spots; 1st, 2nd, and 3rd abdominal segments with cinereous hairs; following segments blackish cupreous. Length of the body 7–9 lines; of the wings 14–16 lines.

46. Laphria complens, n. s. *Fœm.* Nigra, capite argenteo, antennarum articulo 3° fusiformi, thorace strigis duabus anticis obliquis maculisque duabus pectoralibus argenteis, abdomine purpureo maculis duabus argenteis, pedibus purpurascenti-nigris, femoribus non incrassatis, alis nigricantibus, halteribus apice testaceis.

Female. Black; head silvery, with black hairs beneath; mystax with several black bristles; third joint of the antennæ fusiform; thorax with an oblique silvery streak on each side in front; pectus with a silvery spot on each side; abdomen purple, with a silvery spot on each side of the 4th segment; legs purplish-black; femora not incrassated; wings blackish; veins black; discal veinlet and third externo-medial vein nearly forming one straight line; halteres with testaceous knobs. Length of the body 7 lines; of the wings 12 lines.

47. Laphria dioctrioides, n. s. *Fœm.* Nigra, tenuis, linearis, facie pectoreque argenteis, antennis linearibus, abdomine maculis lateralibus pedibusque fulvis, femoribus posticis nigro fasciatis, tibiis tarsisque posticis nigris, alis cinereis, halteribus pallide flavis.

Female. Black, slender, linear; face silvery; mystax with four black bristles; antennæ slender, linear, nearly as long as the breadth of the head; pectus silvery; abdomen with tawny dots along each side; legs tawny; a black ring on each hind trochanter; hind femora with a black band; hind tibiæ and hind tarsi black, the latter tawny beneath; wings cinereous; veins black; halteres pale yellow. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

Subfam. Asilites, *Walk.*

Gen. Trupanea, *Macq.*

48. Trupanea strenua, n. s. *Fœm.* Nigra, robusta, capite fusces-centi-cinereo, pilis subtus flavescenti-cinereis, abdomine fuscescenti-

nigro fascia basali fasciculari alba apice nigro nitente, pedibus crassis, alis fuscescentibus vitta sordide albida, halteribus fulvis.

Female. Black, stout; head brownish cinereous, very thickly clothed beneath with yellowish cinereous hairs; epistoma very prominent; mystax with a few black bristles above and with many yellowish cinereous bristles below; palpi with short black bristles; 3rd joint of the antennæ elongate conical; thorax with black bristles hindward and along each side; pectus cinereous; abdomen brownish black, with a basal band of white tufts; tip black, shining; legs very stout; pulvilli reddish; wings brownish; radial areolet with a dingy whitish stripe; veins black; halteres tawny. Length of the body 11 lines; of the wings 22 lines.

49. Trupanea calorifica, n. s. *Mas et Fœm.* Ochracea, capite aurato, antennis nigris, thorace vittato, abdomine maculis magnis transversis subquadratis nigris, pedibus rufis crassis, tarsis nigris, alis cinereis vitta sordide albida, halteribus fulvis. *Mas.* Pectore abdomineque cinereis, hujus fasciculo subapicali argenteo. *Fœm.* Pectore testaceo, abdomine fulvo.

Male and Female. Ochraceous; head gilded in front, thickly clothed beneath; epistoma prominent; mystax with numerous gilded bristles and above with a few black bristles; palpi with short black bristles; antennæ black; third joint fusiform; thorax with slender indistinct stripes; abdomen with a large black transverse subquadrate spot on each segment; legs red, very stout; tarsi black; wings cinereous; radial areolet with a dingy whitish stripe; veins black; halteres tawny. *Male.* Head with whitish hairs beneath; pectus and abdomen cinereous, the latter with a silvery-white subapical tuft. *Female.* Head with gilded hairs beneath; pectus testaceous; abdomen tawny. Length of the body 9–11 lines; of the wings 18–20 lines.

Gen. Asilus, *Linn.*

50. Asilus determinatus, n. s. *Mas et Fœm.* Cinereo-niger, capite subaurato, antennis nigris, thorace vittis tribus cinereis, pedibus fulvis robustis, femoribus nigro vittatis, tibiis apice tarsisque nigris, alis fuscis, halteribus testaceis. *Mas.* Abdomine pilis basalibus luteis. *Fœm.* Abdomine pilis basalibus cinereis dimidio apicali stylato.

Male and Female. Cinereous black; head slightly gilded in front, with pale hairs beneath; epistoma not prominent; mystax with many pale, and above with a few black bristles; antennæ black; third joint lanceolate; arista nearly as long as all the preceding joints; thorax with three cinereous stripes, the lateral pair dilated towards the humerus on each side; pectus cinereous; legs tawny, stout; femora striped above with black; tarsi and tips of the tibiæ black; wings brown; veins black; halteres testaceous. *Male.* Abdomen with luteous hairs towards the base. *Female.* Abdomen with cinereous hairs

towards the base; nearly half the apical part stylate. Length of the body 10–12 lines; of the wings 18–20 lines.

51. Asilus introducens, n. s. *Fœm.* Cinereo-niger, capite aurato, antennis nigris, thorace vittis duabus lateribusque cinereis, abdomine fasciculis quatuor basalibus cinereis dimidio apicali stylato, pedibus nigris robustis rufo variis, alis fuscescentibus, halteribus fulvis. *Mas*? Capite argenteo, abdomine fascia basali fasciculari fasciaque subapicali albidis latis, alis obscure cinereis.

Female. Cinereous black; head gilded in front, with cinereous hairs beneath; epistoma slightly prominent; mystax with several gilded bristles, and above with a few black bristles: antennæ black; 3rd joint lanceolate, nearly as long as the arista: thorax with two cinereous stripes, which are dilated on each humerus; sides and pectus cinereous: abdomen with two cinereous tufts on each side at the base; nearly half the apical part stylate: legs black, stout; femora red beneath and partly above; tibiæ with a broad red band: wings brownish, somewhat paler towards the base and about the borders of the posterior areolets; veins black; halteres tawny.

Male? Head silvery in front; mystax with several white, and above with a few black bristles; abdomen with a broad whitish tufted band at the base, and with a broad whitish subapical band; wings dark cinereous, partly paler, as in the female. Length of the body 8–12 lines; of the wings 12–16 lines.

52. Asilus areolaris, n. s. *Mas.* Cinereo-niger, capite aurato, antennis nigris basi fulvis, thorace vittis tribus cinereis, abdomine apice nigro nitente segmentis cinereo marginatis, pedibus fulvis, tarsis posterioribus nigris, alis fuscescenti-cinereis pallido lituratis triente basali albido, halteribus testaceis. *Fœm*? Antennarum articulo 3° fusiformi, alis fuscescentibus hyalino lituratis.

Male. Cinereous black; head gilded in front, clothed with black hairs beneath; epistoma prominent; mystax with many gilded bristles, and above with a few black bristles; antennæ black, tawny towards the base; thorax with three slender cinereous stripes, sides and pectus cinereous; abdomen black and shining at the tip, hind borders of the segments cinereous; legs tawny; posterior tarsi black; wings brownish cinereous, with paler marks in most of the areolets, white on more than one-third of the length from the base; veins black, tawny towards base; halteres testaceous.

Female? Epistoma less prominent; third joint of the antennæ fusiform, hardly half the length of the arista; wings brownish; marginal areolets with a nearly colourless spot in each. Length of the body 10 lines; of the wings 18 lines.

53. Asilus tenuicornis, n. s. *Fœm.* Cinereus, capite argenteo, antennis testaceis parvis, thorace vittis duabus fuscescentibus, abdomine obscure cinereo segmentis testaceo marginatis, pedibus fulvis,

genubus tarsisque nigris, alis cinereis apice obscurioribus, halteribus testaceis.

Female. Cinereous; head silvery white in front; epistoma very slightly prominent; mystax with some white bristles, and above with very few black bristles: antennæ testaceous; 3rd joint conical, much shorter than the 1st joint, and not more than one-fourth of the length of the arista: thorax with two brownish stripes: abdomen dark cinereous; hind borders of the segments testaceous: legs tawny; tarsi, except at the base and knees, black: wings cinereous, dark cinereous towards the tips; veins black, tawny towards the base; halteres testaceous. Length of the body 8 lines; of the wings 14 lines.

Gen. Ommatius, *Illiger*.

54. Ommatius scitulus, n. s. *Mas et Fœm.* Fulvus, gracilis, capite cinereo antice albo, antennis nigris basi fulvis, thoracis disco cinereo-nigro, pectore testaceo, abdominis segmentis pallido marginatis, alis cinereis, halteribus testaceis.

Male and Female. Tawny, slender; head cinereous above, white in front; mystax with several white bristles; antennæ black, tawny towards the base. 3rd joint lanceolate, arista not longer than the 3rd joint; disk of the thorax cinereous black; pectus testaceous; hind borders of the abdominal segments pale; tarsi black towards the tips; wings cinereous; veins black, tawny towards the base; halteres testaceous. Length of the body 6–7 lines; of the wings 11–12 lines.

55. Ommatius strictus, n. s. *Mas.* Niger, angustus, capite argenteo, pectore albido-cinereo, abdomine fusco maculis trigonis nigris, segmentis albido marginatis, pedibus fulvis, genibus tarsisque nigris, alis subcinereis extus nigricantibus, halteribus testaceis.

Male. Black, narrow; head silvery white in front; mystax with very few white bristles; third joint of the antennæ elongate-conical; arista a little longer than all the preceding joints together; pectus whitish cinereous; abdomen brown, each segment with a black triangular spot and with a whitish hind border; legs tawny; knees and tarsi black, the latter tawny at the base; wings greyish, exterior half blackish; veins black; halteres testaceous. Length of the body 4–4½ lines; of the wings 7–8 lines.

Gen. Leptogaster, *Meigen*.

56. Leptogaster munda, n. s. *Mas.* Cinerea, capite argenteo, proboscide antennisque fulvis, thorace lineis duabus fuscis, abdomine longo gracili apicem versus subdilatato, segmentorum marginibus maculisque quatuor subapicalibus testaceis, pedibus fulvis, femoribus tibiisque posticis nigro fasciatis, alis subcinereis, halteribus testaceis.

Male. Cinereous; head silvery white; proboscis and antennæ tawny; thorax with two brown lines; abdomen long, slender, slightly dilated

towards the tip, hind borders of the segments testaceous, two testaceous spots on each side towards the tip; legs tawny, hind femora and hind tibiæ with a black band on each; wings slightly greyish; veins black, tawny at the base; halteres testaceous. Length of the body 6 lines; of the wings 8 lines.

Fam. LEPTIDÆ, *Westw.*

Gen. LEPTIS, *Fabr.*

57. LEPTIS FERRUGINOSA, *Wied.* See Vol. I. p. 118.
Heliomeia ferruginea, *Dolichall.*

Dr. Dolichall has described this species and several other Diptera in a Zoological Journal published in Java. I am unable to refer to this work, but have adopted the names with which he has ticketed the species in Mr. Wallace's collection.

Heliomeia has the aspect of *Leptis*, but is distinguished by the subanal and anal veins being united before they join the border of the wing, thus agreeing with *Chrysopila*, from which it differs in the shorter third joint of the antennæ, and in the more slender arista.

Gen. SURAGINA, n. g.

Fœm. Corpus lineare. *Caput* thorace vix angustius. *Proboscis* porrecta, compressa, capitis latitudine paullo brevior. *Palpi* lanceolati, porrecti. *Antennæ* brevissimæ; articulus 3us rotundus; arista gracilis, nuda. *Abdomen* subdepressum, thorace non duplo longius, apice obtusum. *Pedes* nudi, inermes, longiusculi, sat graciles. *Alæ* mediocres, areola discali longissima.

Female. Body linear, moderately broad. Head almost as broad as the thorax; vertex and front of equal breadth. Proboscis porrect, compressed, a little shorter than the breadth of the head. Palpi lanceolate, contiguous to the proboscis. Antennæ very short; 3rd joint round; arista slender, bare, longer than the antenna. Thorax a little narrower in front. Abdomen somewhat flat, less than twice the length of the thorax, obtuse at the tip. Legs bare, unarmed, rather long and slender. Wings moderately long and broad; radial vein slightly curved; forks of the cubital vein a little longer than the preceding part; 3rd externo-medial vein inclined beyond the discal areolet towards the 4th, which is straight; subanal and anal veins united close to the border; discal areolet nearly six times longer than broad, its fore side hardly angular.

58. SURAGINA ILLUCENS, n. s. *Fœm.* Cinereo-nigra, capite argenteo-cinereo supra atro, palpis antennisque nigris, thorace vittis duabus cinereis, abdomine basi cinereo maculis duabus magnis basalibus apiceque testaceis, pedibus nigris, femoribus testaceis nigro cinctis, tibiis intermediis luridis, alis fuscis postice cinereis albo bifasciatis et bistrigatis.

Female. Cinereous black; head silvery grey, deep black above; proboscis, palpi, and antennæ black; thorax with two cinereous stripes; pectus cinereous; abdomen cinereous at the base; two large basal and lateral spots and the tip testaceous; legs black, femora testaceous, anterior femora black towards the base, hind femora with a broad black band, middle tibiæ lurid; wings brown, cinereous along the basal part of the interior border; two white abbreviated bands and two white intermediate streaks; veins black; halteres testaceous, with black knobs. Length of the body 7 lines; of the wings 12 lines.

Fam. BOMBYLIDÆ, *Leach.*

Subfam. THEREVITES, *Walk.*

Gen. THEREVA, *Latr.*

59. Thereva congrua, *Walk.* See Vol. II. p. 90.

Subfam. BOMBYLITES, *Walk.*

Gen. ANTHRAX, *Fabr.*

60. Anthrax Tantalus, *Fabr. Ent. Syst.* iv. 260. 15.
Inhabits also Hindostan, China, and Java.

61. Anthrax semiscita, *Walk.* See Vol. I. p. 118.

62. ANTHRAX PRETENDENS, n. s. *Fœm.* Nigra, fulvo tomentosa, thorace strigis duabus albidis, abdomine fasciis albidis maculisque duabus apicalibus albis, alis subcinereis basi nigris apud costam nigricantibus, halteribus albidis.

Female. Black; head with tawny tomentum in front, cinereous behind and beneath; thorax with tawny hairs in front and on each side, a whitish streak on each side by the base of the wing; abdomen with whitish bands, and with a white spot on each side at the tip, sides with tawny hairs at the base; wings slightly cinereous, black at the base, blackish along nearly half the length of the costa; veins black; radial vein forming a right angle at its base, curved towards its tip; fore braneh of the cubital vein deeply curved; externo-medial veins almost straight; subanal and anal veins approximate on the hind border; halteres whitish. Length of the body 6 lines; of the wings 12 lines.

This and the two following species belong to the group of which *A. hottentotta* is the type.

63. ANTHRAX ANTECEDENS, n. s. *Fœm.* Nigra, flavescente pilosa, capite cinereo, abdomine fasciis late interruptis guttisque duabus apicalibus albis, lateribus anticis albo pilosis, alis hyalinis basi nigricanti-fuscis.

Female. Black; head cinereous in front and beneath; thorax with pale-

yellowish hairs in front and on each side; abdomen with broadly interrupted white bands, a white dot on each side at the tip, sides with white hairs towards the base; wings hyaline, blackish brown at the base; veins black; radial vein curved towards the tip; fore branch of the cubital vein deeply curved; externo-medial veins straight; subanal and anal veins somewhat approximate on the hind border, Length of the body 4 lines; of the wings 8 lines.

64. ANTHRAX CONGRUA, n. s. *Mas.* Nigra, albo pilosa, capite abdominisque lateribus nigro pilosis, abdomine fasciis duabus pallidis, alis subcinereis basi et apud costam nigricantibus, litura costali basali argentea.

Male. Black; head and sides of the abdomen clothed with short black hairs; antennæ very short, 3rd joint round; thorax clothed with white hairs in front and along each side; abdomen with two slender pale bands; wings slightly greyish, blackish at the base and along half the length of the costa, which has a silvery mark at its base; veins black; radial vein curved towards its tip; fore branch of the cubital vein deeply curved; externo-medial veins straight; subanal and anal veins somewhat approximate on the hind border. Length of the body 3 lines; of the wings 6 lines.

65. ANTHRAX DEMONSTRANS, n. s. *Fœm.* Nigra, flavescente pilosa, capite cinereo, abdomine fascia subinterrupta guttisque duabus apicalibus albis, lateribus nigro pilosis basi luteo pilosis, alis nigricantibus basi et apud costam nigris.

Female. Black; head with einereous tomentum behind and beneath; thorax with yellowish hairs on each side; abdomen with a white middle band, which is almost interrupted in the middle and slightly dilated on each side, a white dot on each side at the tip; sides with black hairs, and at the base with luteous hairs; wings blackish, black at the base and along the costa; radial vein forming a rounded angle at its base, as deeply curved towards its tip as is the fore branch of the cubital vein, to which it is parallel; 1st and 2nd externo-medial veins undulating, 3rd nearly straight; subanal and anal veins approximate on the hind border. Length of the body 5 lines; of the wings 10 lines.

66. ANTHRAX PRÆDICANS, n. s. *Fœm.*; Nigra, nigro pilosa, antennis brevissimis articulo 3° rotundo, pedibus piceis, alis nigricantibus, albido strigatis, apice et apud marginem posticum cinereis.

Female. Black; head and sides of the thorax and of the abdomen clothed with short black hairs; antennæ very short, 3rd joint round; legs piceous; wings blackish, dark grey at the tips and along the hind border; discal, pobrachial, 3rd externo-medial, and anal areolets with whitish streaks; radial vein undulating towards its tip; fore-branch of the cubital vein slightly curved; externo-medial veins straight; subanal and anal veins approximating closely on the hind

border; hind side of the discal areolet forming a right angle, and emitting thence the stump of a vein. Length of the body 4½ lines; of the wings 9 lines.

67. ANTHRAX DEGENERA, *Walk.* See Vol. I. p. 15. *var. Mas et Fœm.* Nigra, angusta, fulvo-pilosa, capite cinereo, antennarum articulo 3° conico, pectore subargenteo, abdomine fasciis duabus ventre pedibus halteribusque fulvis, tarsis nigris, alis fuscis, apice margineque postico cinereis.

Male and Female. Black, narrow, head cinereous; 3rd joint of the antennæ conical; arista very short; thorax with tawny hairs; pectus silvery cinereous; abdomen with two lateral tawny stripes, which are broadest in the female; underside, legs and halteres tawny; tarsi black; wings brown, long, narrow, cinereous towards the tips and along the hind border; radial vein curved towards its tip: fore branch of the cubital vein slightly curved, sharply angular at its base; externo-medial veins straight; subanal and anal veins approximate on the hind border. *Male.* Hind femora with black tips; angle of the fore branch of the cubital vein emitting the stump of a vein.

Var. β. Female. Sides of the abdomen less tawny; wings dark brown, cinereous at the tips; fore branch of the cubital vein deeply curved, with its angle emitting the stump of a vein. Length of the body 3½–5 lines; of the wings 8–12 lines.

This species is closely allied to *A. fervida*, and, like the two preceding species, approaches the Australian group (sub-g. *Neuria*), which is distinguished by the long wings with contorted veins.

68. ANTHRAX PROFERENS, n. s. *Mas.* Atra, angusta, abdominis lateribus basalibus albo-pilosis, alis longis atris apud marginem posticum exteriorem limpidis, puncto discali albo, litura exteriore transversa albida.

Male. Deep black, slender; head clothed with short black hairs; antennæ and arista very short; 3rd joint round; abdomen with white hairs on each side at the base; wings long, deep black, limpid along the exterior part of the hind border; a white point in the discal areolet, and a little transverse whitish mark at the base of the fore branch of the cubital vein; the latter deeply curved. Length of the body 4 lines; of the wings 12 lines.

Allied to the group of which *A. hyalacra* is the type.

Gen. SYSTROPUS, *Wied.*

69. SYSTROPUS SPHEGOIDES, n. s. *Mas.* Niger, capite albido-testaceo, antennis apices versus lanceolatis, thorace strigis quatuor lateralibus pallide flavis, abdomine lurido basi et apicem versus nigro, petiolo longissimo, femoribus subtus tibiisque apice luridis, alis nigricante-cinereis, halteribus albidis nigro fasciatis.

Male. Black; head white behind, whitish testaceous in front about the

eyes; proboscis longer than the breadth of the head, its sheaths diverging and convoluted at the tips; antennæ a little longer than the proboscis, lanceolate towards the tips; thorax with two pale-yellow streaks on each side, one in front, the other behind the wing; abdomen lurid, black at the base, above, and towards the tip, where it is fusiform; its petiole very long and slender; femora beneath and tibiæ towards the tips lurid; wings blackish grey; veins black; halteres whitish, with a black subapical band. Length of the body 7 lines; of the wings 8 lines.

Fam. DOLICHOPIDÆ, *Leach*.

Gen. Psilopus, *Meigen*.

70. Psilopus spectabilis, n. s. *Mas*. Aureo-viridis, capite purpurascente-cyaneo, antice argenteo, antennis testaceis, thorace vittis tribus cupreis, scutello cyaneo, abdominis lateribus cupreis, pedibus flavis, alis albis, costa lituris duabus costalibus lutescentibus, halteribus testaceis.

Male. Bright golden green; head purplish blue, with silvery tomentum in front; antennæ testaceous; arista black, shorter than the thorax; thorax with three bright cupreous stripes; scutellum blue; pectus silvery; abdomen bright cupreous along each side; legs yellow; tarsi black towards the tips; wings white, brown along the costa and on more than one-third of the length from the tips, with the exception of the hind border; the costal brown part including two transverse lutescent marks, beyond which there is a brown band; veins black; fore branch of the præbrachial vein nearly straight; discal transverse vein straight; halteres testaceous. Length of the hody 4 lines; of the wings 8 lines.

71. Psilopus filifer, n. s. *Mas*. Viridescente-cyaneus, capite pectoreque argenteis, antennis pedibusque nigris, arista longissima, abdomine viridi fasciis nigris, tibiis anterioribus albidis, alis subcinereis. *Fœm*.? Viridis, capite cyaneo, tibiis anterioribus testaceis.

Male. Greenish blue; head and pectus with silvery white tomentum; antennæ black; arista much longer than the body; abdomen green, with a black band on the base of each segment; legs black, long, slender; anterior tibiæ dingy whitish; wings slightly cinereous; veins black; fore branch of the præbrachial vein much curved; discal transverse vein very slightly undulating.

Female? Bright green; head blue, its fore part and the pectus with silvery white tomentum; abdomen with black bands; anterior tibiæ testaceous; discal transverse vein straight. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

72. Psilopus æstimatus, n. s. *Mas*. Viridis, capite pectoreque argenteis, antennis nigris basi testaceis, abdomine fasciis latis nigris, pedibus flavescentibus, femoribus posticis apice tarsisque nigris, alis subcinereis, halteribus testaceis.

Male. Bright green; head in front and pectus silvery white; antennæ black, testaceous at the base; arista about as long as the thorax; abdomen with a broad black band on the base of each segment; legs yellowish, stout; tarsi black; femora paler than the tibiæ; hind femora with black tips; wings greyish; veins black; cubital vein slightly curved; fore branch of the præbrachial vein much curved; discal transverse vein straight; halteres testaceous. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

73. Psilopus abruptus, n. s. *Mas.* Viridis, capite cyaneo, facie pectoreque subargenteis, antennis pedibus halteribusque nigris, abdomine cyanescente-viridi, alis cinereis.

Male. Bright green; head blue; its fore part and the pectus somewhat silvery; antennæ black; arista hardly longer than the thorax; abdomen bluish green; legs black; wings grey; veins black; fore branch of the cubital vein forming a much rounded right angle, from whence it is straight to its tip; discal transverse vein straight, parted by half its length from the border, and by less than its length from the fork of the cubital; halteres black. Length of the body 2 lines; of the wings 4 lines.

Gen. Dolichopus, *Latr.*

74. Dolichopus cinereus, n. s. *Mas.* Cinereus, capite albo, antennis fulvis, pectore albido, abdomine fasciis æneo-nigris, pedibus testaceis, tarsis anterioribus apice nigricantibus, tibiis posticis apice tarsisque posticis nigris, alis cinereis, halteribus testaceis.

Male. Cinereous, not metallic; head white between the eyes; antennæ tawny; 3rd joint elliptical; arista black, much longer than the antennæ; pectus whitish; abdomen with an æneous black band on each segment; legs testaceous, stout; anterior tarsi blackish towards the tips; hind tarsi and tips of hind tibiæ black; wings grey; veins black; præbrachial vein forming a right angle at its flexure, much curved from thence to the border; discal transverse vein slightly bent outwards; halteres testaceous. Length of the body 3 lines; of the wings 5 lines.

75. Dolichopus prædicans, n. s. *Fœm.* Cinereus, capite pectoreque albis, antennis fulvis, thorace vitta apiceque viridibus, abdomine maculis lateralibus albis, pedibus testaceis, femoribus posticis nigro lineatis, alis cinereis basi nigricantibus, halteribus fulvis.

Female. Cinereous; head and pectus white; antennæ tawny: arista black, longer than the antennæ; thorax with a dorsal stripe and the hind part green; abdomen with white spots along each side; legs testaceous, stout; tibiæ beset with black spines; tarsi black towards the tips; hind femora with a black line; wings cinereous, blackish towards the base; veins black; præbrachial vein gently curved outwards at its flexure, straight from thence to the border; discal trans-

verse vein straight; halteres tawny. Length of the body $2\frac{1}{2}$ lines; of the wings 4 lines.

76. DOLICHOPUS PROVECTUS, n. s. *Fœm.* Viridis, capite pectoreque argenteis, antennis nigris latiusculis basi testaceis, thorace vittis duabus nigris, abdomine fasciis argenteis, pedibus nigris, robustis spinosis, tibiis testaceis, alis obscure cinereis.

Female. Bright green; head in front and pectus silvery white; antennæ black, rather broad, testaceous towards the base; 3rd joint conical; arista much longer than the antennæ; thorax with a black stripe on each side; abdomen with silvery white bands; legs black, stout, spinose; tibiæ testaceous; wings dark grey; veins black; præbrachial vein forming a very obtuse angle at its flexure, straight from thence to the border; discal transverse vein straight. Length of the body $2\frac{1}{2}$ lines; of the wings 4 lines.

77. DOLICHOPUS PRÆMISSUS, n. s. *Mas.* Obscure viridis, capite pectoreque cinereis, antennis nigris, abdomine viridescente-nigro, pedibus nigris vix spinosis, tibiis ferrugineis, alis obscure cinereis, halteribus fulvis.

Male. Approaches the *Psilopi* in some of its characters. Dark green; head in front and pectus cinereous; antennæ black, very small and short; 3rd joint conical; arista as long as the breadth of the head; abdomen greenish black; legs black, hardly spinose or setose; tibiæ ferruginous; wings dark grey; veins black; præbrachial vein hardly bent between the straight discal transverse vein and the border; halteres tawny. Length of the body 2 lines; of the wings $3\frac{1}{2}$ lines.

78. DOLICHOPUS PROVENIENS, n. s. *Fœm.* Obscure viridis, capite albo, antennis nigris, thorace vittis duabus pectoreque cinereis, abdomine cyanescente-viridi fasciis cupreis, pedibus nigris, femoribus anterioribus apice tibiisque fulvis, alis nigricantibus, halteribus fulvis.

Female. Dark green; head white in front and about the eyes; antennæ black; 3rd joint round; arista shorter than the breadth of the head; thorax with two cinereous stripes; pectus cinereous; abdomen bluish green, with cupreous bands; legs black; tibiæ and tips of anterior femora tawny; wings blackish; veins black; præbrachial vein quite straight; discal transverse vein straight, parted by twice its length from the end of the subanal vein; halteres tawny. Length of the body 2 lines; of the wings 4 lines.

Gen. CHRYSOTUS, *Meigen.*

79. CHRYSOTUS EXACTUS, n. s. *Mas.* Obscure viridis, cinereo-tomentosus, antennis pedibusque nigris, abdomine obscure cupreo, tibiis anticis fulvis, alis cinereis.

Male. Dark green, with cinereous tomentum; antennæ black; 3rd joint conical; arista much shorter than the breadth of the head; abdomen dark-cupreous; legs black; fore tibiæ tawny; wings grey;

veins black; præbrachial vein hardly bent exteriorly; discal transverse vein parted by more than four times its length from the end of the subanal vein. Length of the body $1\frac{1}{4}$ line; of the wings 2 lines.

Gen. Diaphorus, *Meigen.*

80. Diaphorus resumens, *Wlk.* See Vol. 11. p. 93.

Fam. LONCHOPTERIDÆ, *Curtis.*

Gen. Cadrema, n. g.

Mas. *Corpus* breviusculum, sat gracile. *Caput* thorace vix angustius; facies subobliqua. *Antennæ* brevissimæ; arista apicalis, longa, subpubescens. *Abdomen* ovatum, thorace vix longius. *Pedes* posteriores robusti; tibiæ posticæ calcare apicali arcuata. *Alæ* angustæ, lanceolatæ.

Male. Body rather short and slender; head nearly as broad as the thorax; face slightly oblique. Antennæ extremely short; arista long, apical, minutely pubescent. Abdomen oval, hardly longer or broader than the thorax. Posterior legs stout; hind tibiæ with a curved apical spur. Wings narrow, lanceolate; cubital vein and præbrachial vein parallel, the latter ending at the tip of the wing; discal transverse vein straight, ending at full thrice its length from the border and at nearly thrice its length from the præbrachial transverse.

81. Cadrema Lonchopteroides, n. s. *Mas.* Testacea, antennis luteis, thoracis disco et metathorace nigris, abdomine apicem versus nigricante, alis vitreis macula apicali nigricante.

Male. Testaceous; antennæ luteous; disk of the thorax and metathorax black; abdomen blackish towards the tip; wings vitreous, with a blackish apical spot; veins black, testaceous towards the base. Length of the body $1\frac{3}{4}$ line; of the wings 4 lines.

Fam. PLATYPEZIDÆ, *Haliday.*

Gen. Platypeza, *Meigen.*

82. Platypeza glaucescens, n. s. *Mas et Fœm.* Piceo-nigra, capite gutta atra, thoracis disco cyanescente-cinereo, abdomine nigro, pedibus halteribusque piceis, tarsis albidis, posticis dilatatis, alis vitreis.

Male and Female. Piceous black; head with a deep black dot in front; disk of the thorax with a bluish-cinereous tinge; abdomen black; legs piceous; tarsi whitish; hind tarsi dilated; wings quite vitreous; veins black; discal transverse vein parted by nearly twice its length from the border, and by more than twice its length from the fork of the præbrachial vein; fore branch of the latter joining the termination of the costal vein at the tip of the wing, close to the end of the cubital vein; halteres piceous. Length of the body 1–$1\frac{1}{2}$ line; of the wings 2–$2\frac{1}{2}$ lines.

Fam. SIPPHIDÆ, *Leach.*

Gen. Ceria, *Fabr.*

83. Ceria lateralis, n. s. *Mas.* Nigra, capite vittis guttisque duabus, thorace maculis octo, pectore fasciis duabus, abdomine maculis duabus basalibus fasciisque duabus flavis, antennarum petiolo pedibusque rufis, alis subcinereis, basi costa strigaque fuscis, halteribus flavis.

Male. Black; head with two yellow stripes in front, and with a yellow dot on each side at the base of the antennæ; petiole of the latter reddish; 3rd joint elongate-fusiform: thorax with three yellow calli on each side; scutellum with two oblique fusiform yellow spots which are united hindward; pectus with a yellow band on each side; abdomen with a slender petiole which is as long as the terminal fusiform part; a yellow spot on each side of the base; hind borders of the 1st and 2nd segments yellow; legs red; tarsi piceous; wings greyish, dark brown at the base, whence a dark brown streak proceeds to the disk; costa dark brown, blackish exteriorly; veins black; halteres yellow. Length of the body 12 lines; of the wings 16 lines.

Gen. Milesia, *Latr.*

84. Milesia conspicienda, n. s. *Mas et Fœm.* Nigra, capite flavo maculis duabus nigris, palpis antennisque rufescentibus, thorace vittis fasciis maculisque duabus, scutelli margine abdomineque fasciis tribus flavis, abdomine fasciis tribus chalybeis, pedibus luteis, femoribus nigro vittatis, tarsis nigris apice luteis, alis cinereis apud costam fuscis.

Male and Female. Black; head yellow, with an elongate black spot above the antennæ, and with another above the epistoma; mouth black; palpi and antennæ reddish; thorax with two yellow stripes; each of its sides in front with a large yellow spot, the latter connected with a band across the pectus; two yellow bands, the 1st interrupted; scutellum bordered with yellow; pectus with two yellow bands on each side; abdomen with three yellow bands and with three chalybeous bands; 3rd yellow band slightly interrupted; legs luteous; femora striped beneath with black; tarsi black, with luteous tips; wings grey, brown along the costa; veins black; halteres yellow. *Male.* Abdomen with a subapical interrupted band; 1st band notched on the hind side. *Female.* First abdominal band slightly interrupted. Length of the body 8–9 lines; of the wings 14–16 lines.

Gen. Graptomyza, *Wied.*

85. Graptomyza tibialis, *Wlk.* See Vol. II. p. 95.

Fœm.? Lutea, crassa, lata, pubescens, vertice et epistomatis linea nigris, thoracis maculis duabus, disco postico, scutelli pectorisque discis cupreo-nigris, abdomine fasciis tribus nigris, femoribus anterioribus tibiisque nigro fasciatis.

Female? Luteous, pubescent, broad, thick; vertex black; epistoma

conical, forked at the tip, with a black line; proboscis longer than the thorax, black towards the base; arista plumose; two large spots on the thorax, its disk hindward, disk of the scutellum and disk of the pectus cupreous black; abdomen highly arched, with three black bands which are produced and slightly interrupted in the middle; apical band very broad; tibiæ and anterior femora with black bands; wings with a luteous stigma. Length of the body 5 lines; of the wings 8 lines.

Gen. Eristalis, *Latr.*

86. Eristalis crassus, *Fabr.* *Ent. Syst.* IV. 281, 12.
Inhabits also Hindostan.

87. Eristalis Æsepus, *Wlk.* *Cat. Dipt.* pt. 3, 625.
Inhabits also China.

88. Eristalis bomboides, n. s. *Mas.* Ater, capite albo, arista nuda, thorace pubescente fascia cinerea fasciaque chalybeo-nigra, pectore cinereo, abdomine fasciis quatuor chalybeo-nigris, vittis duabus ventralibus latis albidis, tibiis basi flavis, alis nigricante-fuscis cinereo marginatis, halteribus flavis.

Male. Deep black; head with black hairs on the front and with white tomentum in front and behind; arista simple; thorax thickly pubescent, having in front a cinereous band which is tawny on each side, and a chalybeous black hinder band; scutellum chalybeous-black; pectus cinereous; abdomen with four chalybeous-black bands; the 1st widely interrupted; under side with a broad short whitish stripe on each side; hind (and anterior?) tibiæ yellow at the base; wings blackish-brown, cinereous towards the tips and along the hind border; veins black; halteres yellow. Length of the body $5\frac{1}{2}$ lines; of the wings 11 lines.

Gen. Helophilus, *Meigen.*

The two following *Helophili* may be merely varieties of *H. quadrivittatus.*

89. Helophilus consors. n. s. *Mas.* Niger, thorace vittis quatuor flavis, scutello luteo, abdomine vittis tribus luteis tribusque chalybeis, tibiis basi luteis, femoribus posticis incrassatis, alis cinereis apud costam fuscescentibus, halteribus flavis.

Male. Black; thorax with four yellow stripes; scutellum luteous; pectus cinereous; abdomen with three luteous bands and with four chalybeous bands; 1st luteous band interrupted, very broad; 3rd and 4th slightly excavated on the hind side; tibiæ luteous towards the base; hind femora incrassated; hind tibiæ curved; wings cinereous, brownish along the costa; veins black; halteres yellow. Length of the body 5 lines; of the wings 9 lines.

90. Helophilus conclusus, n. s. *Mas.* Niger, capite albo, antennis

rufescentibus, arista nuda, thorace vittis quatuor flavis, scutello fulvo, abdomine fasciis quatuor lineaque transversa flavis fasciaque chalybea, pedibus nigro-luteis, tarsis nigris, alis cinereis apud costam subfuscis, halteribus flavis.

Male. Black ; head white, with a black callus above the antennæ, which are reddish ; arista simple ; proboscis black ; thorax with 4 yellow stripes ; scutellum tawny ; pectus with a broad oblique pale yellow band on each side ; abdomen with 4 yellow bands ; 1st and 2nd bands very broad ; 1st interrupted ; 2nd interrupted except in front, where there is a yellow transverse line ; 3rd and 4th narrow, with a chalybeous band along the hind border of the 3rd ; legs luteous, shaded with black ; tarsi wholly black ; wings grey, slightly brown along the costa ; veins black, tawny towards the base ; halteres yellow. Length of the body 5 lines ; of the wings 9 lines.

Gen. Merodon, *Fabr.*

91. Merodon interveniens, n. s. *Mas.* Fuscus, flavescente-cinereo tomentosus, capite testaceo, antennis nigris, arista nuda, scutello fulvo, abdomine fasciis septem ventreque testaceis, pedibus fulvis, femoribus nigro vittatis, femoribus posticis incrassatis, tibiis posticis nigris, alis cinereis litura costali nigricante, halteribus flavis.

Male. Brown ; head with short black hairs on the vertex, white behind, pale testaceous, and with a brown stripe in front ; proboscis and antennæ black ; arista simple ; thorax thickly clothed with yellowish cinereous down ; scutellum tawny ; pectus cinereous ; abdomen cylindric-conical, with seven testaceous bands ; under side testaceous ; legs tawny ; femora striped with black ; hind femora incrassated ; hind tibiæ curved, black ; wings cinereous, with a blackish mark by the middle of the costa ; veins black, halteres yellow. Length of the body 6 lines ; of the wings 10 lines.

Gen. Volucella, *Geoff.*

92. Volucella decorata, n. s. *Mas.* Fulva, oculis thoraceque pubescentibus, hujus disco cupreo-nigro, abdomine cupreo-nigro fasciis tribus flavis, pedibus piceo-fulvis, tarsis piceis basi fulvis, alis vitreis, costa lutea extus fuscescente, halteribus apice niveis.

Male. Tawny ; epistoma very prominent ; eyes pubescent ; arista broadly plumose ; thorax pubescent ; disk cupreous-black ; abdomen cupreous-black, with three yellow bands ; 1st band basal ; legs slightly shaded with piceous ; tarsi piceous, tawny at the base ; wings vitreous, luteous and exteriorly brownish along the costa ; veins tawny, black towards the tips ; halteres with snow-white knobs. Length of the body 7 lines ; of the wings 14 lines.

Gen. Baryterocera, *Walk.* See Vol. I. p. 123.

93. Baryterocera gibbula, n. s. *Fœm.* Cupreo-nigra, capite fla-

vescente vitta cupreo-nigra, antennis fulvis, thoracis lateribus fasciaque flavis, abdominis lateribus fasciis tribus flavis strigisque tribus flavis, pedibus flavis, tibiis posticis femoribusque nigris apice flavis, alis cinereis, litura costali fasciisque duabus exterioribus nigricantibus.

Female. Cupreous black; head in front yellowish with a cupreous-black stripe; antennæ tawny; 3rd joint long, linear, obtuse at the tip; thorax yellow along each side and with a yellow band in front of the scutellum; abdomen yellow along each side and with three yellow bands; 1st band entire; 2nd nearly interrupted; 3rd emitting a lanceolate streak in front and two hindward streaks which extend to the tip; legs yellow; femora and hind tibiæ black with yellow tips; wings cinereous, with a blackish mark by the middle of the costa, and with two exterior slender blackish bands; veins black; halteres yellow. Length of the body $2\frac{1}{2}$ lines; of the wings 4 lines.

Gen. Eumerus, *Meigen*.

94. Eumerus figurans, n. s. *Fœm.* Niger, capite albo vitta cyanea, scutelli margine postico fulvo, abdomine nigro-æneo fasciis duabus albis, 2^a interrupta, tarsis subtus genubusque testaceis, alis subcinereis.

Female. Black, nearly cylindrical; head whitish, with a dark blue stripe on the vertex; antennæ with whitish tomentum; 3rd joint somewhat dilated, rather broader than long; scutellum tawny along the hind border; pectus cinereous; abdomen æneous-black, minutely punctured, with two white bands, placed oblique with regard to the segments, the 2nd interrupted; tarsi beneath and knees testaceous; wings greyish; veins black; cubital vein much contorted; halteres testaceous. Length of the body $5\frac{1}{2}$ lines; of the wings 6 lines.

Gen. Syritta, *St. Farg*.

95. Syritta illucida, n. s. *Fœm.* Ænea, capite argenteo, vertice nigro punctis duobus nigris, antennis pallide rufis, abdomine fasciis duabus latis interruptis testaceis maculisque duabus subapicalibus albis, pedibus testaceis, femoribus tibiisque posticis nigris, his rufo fasciatis, alis subcinereis.

Female. Æneous; head silvery white; vertex black, with an elongated white point on each side; antennæ pale red; pectus and sides of the thorax whitish; abdomen with two broad interrupted testaceous bands; apical segment with a white spot on each side at the base; under side testaceous except near the tip; legs testaceous; hind femora and hind tibiæ black, the latter with a red band; wings greyish-vitreous; veins black. Length of the body $3\frac{1}{2}$ lines; of the wings 5 lines.

Gen. Baccha, *Fabr*.

96. Baccha dispar, n. s. *Mas.* Cupreo-nigra, capite chalybeo-nigro vittis duabus flavis, antennis rufis, thorace maculis quatuor luteis, ab-

domine fasciis duabus arcuatis luteis, pedibus rufescentibus, alis subcinereis, costa fasciaque nigricante fuscis, halteribus fulvis. *Fœm.* Scutello flavo apud discum nigricante, abdominis petiolo fulvo, fascia 2ª non arcuata, apice chalybeo, pedibus testaceis, posticis nigro fasciatis.

Male. Cupreous black; head chalybeous black, with a yellow stripe on each side in front; antennæ red, very short; 3rd joint conical; arista black, short; thorax with two luteous spots on each side; the 1st pair joining a luteous band on each side of the pectus; abdomen petiolated, clavate, with two much-arched luteous bands; legs reddish; wings slightly cinereous, blackish-brown along the costa, and with an irregular blackish-brown band, which hardly extends to the hind border; veins black; halteres tawny.

Female. Scutellum yellow, with a blackish disk; abdomen much compressed, with a long slender linear tawny petiole; the 2nd yellow band not arched; tip chalybeous; legs testaceous; hind femora slightly banded with black; hind tibiæ black towards the tips. Length of the body $4\frac{1}{2}$–5 lines; of the wings 8–9 lines.

Gen. SYRPHUS, *Fabr.*

97. Syrphus consequens, *Wlk.* See Vol. I. p. 18.

Fam. MUSCIDÆ, *Latr.*

Subfam. TACHINIDES, *Walk.*

Gen. NEMORÆA, *Macq.*

98. NEMORÆA AMPLIFICANS, n. s. *Fæm.* Cinereo-nigra, capite testaceo, frontalibus nigris, palpis fulvis, antennis piceis, thorace vittis quinque nigris, scutello ferrugineo, abdomine piceo fasciis duabus latis interruptis cinereis, alis cinereis basi et apud costam fuscis.

Female. Cinereous black, with black bristles; head testaceous, more cinereous beneath; frontalia black, slightly widening to the face, with a row of bristles along each side; facialia not bristly; epistoma not prominent; palpi tawny; antennæ piceous, not extending to the epistoma; 3rd joint linear, rounded at the tip, full twice the length of the 2nd; arista nearly twice the length of the 3rd, stout for full half its length; thorax with five slender black stripes, thickly beset with long stout bristles; scutellum ferruginous except towards its base; abdomen piceous, setose towards its tip; 2nd and 3rd segments with broad interrupted cinereous bands along their fore borders; legs stout, bristly; wings grey, brown at the base and in front; veins black; præbrachial vein forming a slightly obtuse angle at its flexure, from whence it is very slightly curved inward to its tip; discal transverse vein straight, excepting a very slight inward bend near its base, parted by rather more than half its length from the border, and from the flexure of the præbrachial; alulæ cinereous-white. Length of the body 8 lines; of the wings 14 lines.

99. Nemoræa tenebrosa, n. s. *Fœm.* Cinereo-nigra, capite albido, frontalibus nigris, oculis pubescentibus, palpis et antennarum articulo 2° rufescentibus, thorace lineis quinque nigris, scutello rufo, abdomine obscure rufescente tessellis cinereis, femoribus posticis fimbriatis, alis cinereis, basi costa et venarum marginibus obscure fuscis.

Female. Cinereous black, with black bristles; head whitish; frontalia black, slightly widening to the face, with a row of bristles along each side and beyond it; facialia bristly along most of the length; epistoma not prominent; eyes pubescent; palpi reddish; antennæ not nearly reaching the epistoma; 3rd joint linear, slender, obtuse at the tip, much less than twice the length of the 2nd, which is reddish; arista stout for full half its length, much longer than the 3rd joint; thorax with five black lines; scutellum red, black at the base; abdomen dark reddish, slightly tessellated with cinereous; legs black, bristly; hind femora fringed with short black hairs; wings grey, dark brown at the base, along the costa and along the black veins; præbrachial vein forming a right angle at its flexure, from whence it is slightly curved inward to its tip; discal transverse vein much curved inward near its base, parted by much less than its length from the border and by rather less than its length from the flexure of the præbrachial; alulæ lurid-cinereous. Length of the body 6 lines; of the wings 12 lines.

Gen. Masicera, *Maq.*

100. Masicera dotata, n. s. *Fœm.* Cinerea, capite albo, frontalibus atris, oculis nudis, proboscide palpisque fulvis, thorace vittis quatuor nigris, abdomine longi-elliptico fasciis cinereis, alis luridis angustis, dimidio apicali obscure fusco, margine postico cinereo, halteribus testaceis.

Female. Cinereous, beset with numerous long stout black bristles; head white, clothed behind and beneath with white hairs; frontalia deep black, slightly widening towards the face, with stout bristles along each side; facialia without bristles except by the epistoma, which is not prominent; eyes bare; proboscis and palpi tawny; antennæ nearly reaching the epistoma; 3rd joint slightly broader towards the tip, which is rounded, about four times the length of the 2nd; arista stout at the base, very much longer than the 3rd joint; thorax with four black stripes; abdomen elongate-elliptical, its bristles stouter than those of the thorax; a cinereous band along the fore-border of each segment; lips black, stout, bristly; wings lurid, narrow, dark brown on the exterior half, cinereous along the hind border; veins tawny, black exteriorly; præbrachial vein extending rather beyond the slightly acute angle which it forms at its flexure, much curved inward from thence to its tip; discal transverse vein undulating, parted by rather less than its length from the border and from the flexure of the præbrachial; alulæ cinereous; halteres testaceous. Length of the body 6 lines; of the wings 12 lines.

101. Masicera horrens, n. s. *Fœm.* Albido-cinerea, valde setosa, capite albo, facie obliqua, oculis pubescentibus, thorace vittis quatuor nigris, abdomine subfusiformi spinoso fasciis tribus latis subinterruptis albidis, alis cinereis basi et apud costam subfuscis, alulis albido-cinereis.

Female. Whitish cinereous, thickly beset with long stout black bristles; head white, clothed behind and beneath with white hairs; frontalia deep black, hardly widening towards the face, with bristles along each side and beyond it; face oblique; facialia with bristles along nearly two-thirds of the length; epistoma not prominent; eyes pubescent; palpi black, rather long; antennæ nearly reaching the epistoma; 3rd joint linear, rounded at the tip, full four times the length of the 2nd; arista very much longer than the 3rd joint, stout for more than one-third of its length; thorax with four black stripes; abdomen nearly fusiform, more spinose than bristly, with three broad slightly interrupted whitish bands on the fore borders of the segments; legs black, stout, bristly; wings grey, slightly brown at the base and along the costa; veins black; præbrachial vein forming a somewhat rounded right angle at its flexure, near which it is much curved inward and is thence straight to its tip; discal transverse vein undulating, parted by about its length from the border and by much less than its length from the flexure of the præbrachial; alulæ whitish cinereous. Length of the body 7 lines; of the wings 12 lines.

102. Masicera immersa, n. s. *Fœm.* Albido-cinerea, capite argenteo, oculis nudis, palpis, antennis pedibusque nigris, thorace lineis quatuor nigris, abdomine nigro fasciis tribus latis interruptis cinereis, alis cinereis, alulis albido-cinereis albo marginatis.

Female. Whitish cinereous, with a few black bristles; head silvery white, with white hairs behind and beneath; frontalia black, widening towards the face, with a row of bristles along each side; facialia without bristles; epistoma not prominent; eyes bare; palpi black; antennæ not reaching the epistoma; 3rd joint linear, rounded at the tip, about four times the length of the 2nd; arista slender, very much longer than the 3rd joint; thorax with four slender black lines; abdomen black, conical, not longer than the thorax, with three broad interrupted cinereous bands along the fore borders of the segments; legs black, stout; wings grey; veins black; præbrachial vein forming a slightly rounded and obtuse angle at its flexure, from whence it is slightly curved inward to its tip; discal transverse vein slightly undulating, parted by much less than its length from the border and from the flexure of the præbrachial; alulæ whitish cinereous with white borders. Length of the body 4 lines; of the wings 7 lines.

103. Masicera prognosticans, n. s. *Fœm.* Cinerea, gracilis, capite albo, abdomine nigro cylindrico fasciis albis, alis cinereis, alulis halteribusque albis.

Female. Cinereous, slender; head white; frontalia deep black, linear, with stout bristles along each side; facialia without bristles; epistoma not prominent; eyes bare; palpi short, slender; antennæ reaching the epistoma; 3rd joint linear, rounded at the tip, about six times the length of the 2nd; arista rather slender, not much longer than the 3rd joint; abdomen black, cylindrical, very much longer than the thorax, with a white band on the fore border of each segment; wings cinereous; veins black; præbrachial vein forming a slightly rounded and extremely obtuse angle at the flexure, straight from thence to the tip; discal transverse vein straight, parted by about its length from the border, and by much less than its length from the flexure of the præbrachial; alulæ and halteres white. Length of the body $2\frac{1}{2}$ lines; of the wings $4\frac{1}{2}$ lines.

Gen. Eurygaster, *Macq.*

104. Eurygaster ridibunda, n. s. *Fœm.* Cinerea, capite argenteo, oculis pubescentibus, palpis fulvis clavatis, antennis piceis, thorace lineis quatuor nigris, abdomine nigro fasciis tribus latis albido-cinereis, pedibus nigris, alis subcinereis basi et apud costam subluridis, halteribus fulvis.

Female. Cinereous, with black bristles; head silvery white in front and behind, clothed behind and beneath with white hairs; frontalia deep black, hardly widening towards the epistoma, with a few black bristles along each side and beyond; facialia without bristles; epistoma not prominent; eyes pubescent; palpi tawny, clavate; antennæ piceous, almost reaching the epistoma; 3rd joint linear, slightly rounded at the tip, nearly thrice the length of the 2nd; arista slender, very much longer than the 3rd joint; thorax with four black lines; abdomen black, conical, a little broader and longer than the thorax, with three broad whitish-cinereous bands, somewhat spinose towards the tip; legs black, hardly bristly; wings greyish, with a lurid tinge at the base and along part of the costa; veins black, tawny towards the base; præbrachial vein forming a rounded and obtuse angle at its flexure, nearly straight from thence to its tip; discal transverse vein hardly undulating, parted by little more than half its length from the border, and by much less than its length from the flexure of the præbrachial; alulæ cinereous; halteres tawny. Length of the body $4\frac{1}{2}$ lines; of the wings 8 lines.

105. Eurygaster remittens, n. s. *Fœm.* Cinerea, capite albo, oculis pubescentibus, palpis, antennis pedibusque nigris, thorace lineis quatuor nigris, scutello rufo, abdomine nigro fasciis cinereis fere interruptis, segmenti 2^{i} lateribus rufescentibus, alis cinereis basi fuscescentibus, alulis albidis.

Female. Cinereous, slightly bristly; head white, clothed behind and beneath with white hairs; frontalia deep black, widening towards the face, with a row of bristles along each side and beyond; facialia without

bristles; epistoma not prominent; eyes pubescent; palpi black, short; antennæ almost reaching the epistoma; 3rd joint slightly widening towards the tip, which is rounded; arista slender, very much longer than the 3rd joint; thorax with four black lines; scutellum red, black at the base; abdomen black, conical, somewhat pilose at the tip, hardly broader or longer than the thorax, with cinereous nearly interrupted bands; 2nd segment reddish on each side; legs black, slightly bristly; wings grey, brownish at the base; veins black; præbrachial vein forming a slightly obtuse angle at its flexure, from whence it is hardly curved inward to its tip; discal transverse vein very slightly undulating, parted by a little more than half its length from the border, and by about half its length from the flexure of the præbrachial; alulæ whitish. Length of the body 5 lines; of the wings 8 lines.

106. Eurygaster apta, n. s. *Fœm.* Cinerea, capite albo, oculis nudis, palpis, antennis, pedibusque nigris, thorace vittis quatuor indistinctis, abdominis vitta dorsali et segmentorum marginibus posticis nigris, alis cinereis apud costam fuscescentibus, alulis albido-cinereis.

Female. Cinereous, with few bristles; head white; frontalia black, narrow, linear, with a row of bristles along each side and beyond; facialia without bristles; epistoma not prominent; eyes bare; palpi black; antennæ almost reaching the epistoma; 3rd joint linear, rounded at the tip, about four times the length of the 2nd; arista slender, very much longer than the 4th joint; thorax with four indistinct black stripes; abdomen conical, especially setose towards the tip, very little longer than the thorax; 1st segment, hind borders of the other segments and dorsal stripe black; legs black; wings grey, brownish along the costa; veins black; præbrachial vein forming an obtuse angle at its flexure, hardly curved inward from thence to its tip; discal transverse vein slightly undulating, parted by much less than its length from the border, and by a little less than its length from the flexure of the præbrachial; alulæ whitish cinereous. Length of the body 4 lines; of the wings 7 lines.

107. Eurygaster conglomerata, n. s. *Fœm.* Cinereo-nigra, capite albo, oculis pubescentibus, palpis, antennis pedibusque nigris, thorace lineis quatuor anticis nigris, thorace postico abdomineque anthracinis, tibiis posticis subfimbriatis, alis cinereis, alulis testaceo-albis.

Female. Cinereous black; head white, with white hairs behind and beneath; frontalia deep black, linear, with a row of bristles along each side and beyond; facialia without bristles; epistoma not prominent; eyes pubescent; palpi black; antennæ reaching the epistoma; 3rd joint linear, rounded at the tip, six times the length of the 2nd; arista much longer than the 3rd joint, stout to half its length; thorax with four black lines; hind part and abdomen coal black, shining, the latter conical, not longer than the thorax, setose towards the tip; legs black;

hind tibiæ slightly fringed; wings grey; veins black; præbrachial vein forming a hardly obtuse angle at its flexure, almost straight from thence to its tip; discal transverse vein undulating, parted by much less than its length from the border, and by a little less than its length from the flexure of the præbrachial; alulæ testaceous white, very large. Length of the body $4\frac{1}{2}$ lines; of the wings 8 lines.

108. EURYGASTER PROMINENS, n. s. *Mas.* Cinereo-nigra, capite albo, oculis pubescentibus, palpis, antennis pedibusque nigris, thorace lineis quatuor indistinctis, abdominis basi vitta dorsali et segmentorum marginibus posticis nigris, scutelli apice rufescente, abdomine segmenti 2^i^ lateribus subrufescentibus, alis cinereis, alulis albis.

Male. Cinereous black; head white, with white hairs behind and beneath; frontalia deep black, widening to the epistoma, with a row of bristles along each side and beyond; facialia without bristles; epistoma not prominent; eyes pubescent; palpi black; antennæ extending to the epistoma; 3rd joint linear, narrow, rounded at the tip, full four times the length of the 2nd; arista much longer than the 3rd joint, stout to nearly half its length; thorax with four indistinct black lines; scutellum reddish towards its tip; abdomen nearly oval, cinereous, not longer than the thorax; 1st segment, hind borders of the following segments, and dorsal stripe black; 2nd segment slightly reddish on each side; legs black; wings grey; veins black; præbrachial vein forming a right angle at its flexure, near which it is very slightly curved inward, and is thence straight to its tip; discal transverse vein hardly undulating, parted by much less than its length from the border, and by less than its length from the flexure of the præbrachial; alulæ white, very large. Length of the body $3\frac{1}{4}$ lines; of the wings $6\frac{1}{2}$ lines.

109. EURYGASTER DEDUCENS, n. s. *Fœm.* Cinerea, capite albo, oculis nudis, palpis, antennis pedibusque nigris, thorace lineis quatuor, abdominis basi fasciisque tribus nigris, scutello rufescente, alis cinereis basi nigris, alulis albis.

Female. Cinereous, bristly, head white, with whitish hairs behind and beneath; frontalia deep black, widening to the face, with black bristles along each side and beyond; facialia without bristles, except by the epistoma, which is slightly prominent; eyes bare; antennæ reaching the epistoma; 3rd joint linear, rather broad, slightly rounded at the tip, about four times the length of the 2nd; arista much longer than the 3rd joint, stout to half its length; thorax with four black lines; scutellum reddish; abdomen conical, not longer than the thorax, black at the base, and with three black bands on the hind borders of the segments; wings grey, black at the base; veins black, testaceous at the base, except along the costa; præbrachial vein forming an obtuse angle at its flexure, slightly curved inward from thence to its tip; discal transverse vein straight, except a slight curve at its base, parted

by a little more than half its length from the border, and by much less than its length from the flexure of the præbrachial; alulæ white. Length of the body $3\frac{3}{4}$ lines; of the wings 7 lines.

110. Eurygaster contracta, n. s. *Fœm.* Cinerea, brevis, capite albo, palpis, antennis pedibusque nigris, thorace vittis quatuor nigris, abdomine nigro fasciis tribus latis subinterruptis argenteo-cinereis, alis cinereis basi nigricantibus, alulis albis,

Female. Cinereous, short; head white; frontalia deep black, widening slightly towards the face, with stout bristles along each side; facialia without bristles; epistoma not prominent; eyes bare; palpi and legs black; antennæ reaching the epistoma; 3rd joint linear, rounded at the tip, about four times the length of the second; arista stout for almost one-third of the length; thorax with four black stripes; abdomen black, nearly oval, not longer than the thorax, with three broad slightly interrupted silvery cinereous bands; wings cinereous, blackish at the base; veins black; præbrachial vein forming an obtuse angle at its flexure, nearly straight from thence to its tip; discal transverse vein curved inward towards its base, parted by less than its length from the border, and by about its length from the flexure of the præbrachial; alulæ white. Length of the body $2\frac{1}{2}$ lines; of the wings $4\frac{1}{2}$ lines.

111. Eurygaster progressa, n. s. *Fœm.* Fulva, capite subtus et apud oculos albido, antennis pallide luteis apice fuscescentibus, abdomine maculis tribus dorsalibus nigris, alis cinereis apud costam luridis apice fuscis, halteribus testaceis.

Female. Tawny, with black bristles; head testaceous, whitish about the eyes and beneath; frontalia pale luteous, widening to the epistoma, beset with bristles along each side; facialia without bristles; epistoma not prominent; eyes bare; antennæ pale luteous, almost reaching the epistoma; 3rd joint linear, brownish towards the tip; arista stout to about one-third of the length; abdomen nearly oval, hardly longer or broader than the thorax, with three black dorsal spots; tarsi piceous; wings grey, lurid along the costa, brown towards the tips, except along the hind border; præbrachial vein forming a slightly obtuse angle at its flexure, much curved inward from thence to its tip; discal transverse vein undulating, parted by much less than its length from the border, and by about its length from the flexure of the præbrachial; alulæ and halteres testaceous. Length of the body 4 lines; of the wings 7 lines.

Gen. Metopia, *Meigen.*

112. Metopia inspectans, n. s. *Fœm.* Cinerea, capite magno argenteo subconico, facie perobliqua, thorace vittis quatuor, abdominis vitta dorsali et segmentorum marginibus posticis nigris; alis cinereis, alulis albis, halteribus piceis.

Female. Cinereous; head large, silvery, almost conical in front; frontalia black, linear, with a few bristles along each side; face very oblique; facialia without bristles; epistoma not prominent; eyes bare; proboscis and palpi black, very short; antennæ extending to the epistoma, 3rd joint linear, rounded at the tip, full six times the length of the 2nd; arista longer than the 3rd joint; stout to nearly half its length; thorax with four black stripes, the outer pair interrupted; abdomen conical, not longer than the thorax, hind borders of the segments and dorsal stripe black; legs black, rather short and stout; wings grey; veins black; præbrachial vein forming an almost right angle and emitting a branch at its flexure, from whence it is slightly curved inward to its tip; discal transverse vein straight, parted by much less than its length from the border and by very much less than its length from the flexure of the præbrachial; alulæ white; halteres piceous. Length of the body 3 lines; of the wings 5 lines.

113. Metopia instruens, n. s. *Fœm.* Cinerea, capite subconico argenteo micante, facie perobliqua, palpis antennis pedibusque nigris, thorace vittis quatuor nigris, abdomine e maculis nigris trivittato, alis cinereis.

Female, Cinereous; head brilliant silvery, almost conical; face very oblique; facialia with bristles along each side; epistoma not prominent; eyes bare; palpi and legs black; antennæ reaching the epistoma, 3rd joint linear, rounded at the tip, about six times the length of the 2nd; arista longer than the 3rd, stout to about one-third of its length; thorax with four black stripes; abdomen with three rows of triangular black spots; wings cinereous; veins black; præbrachial vein forming an obtuse angle, and emitting a branch at its flexure, slightly curved inward from thence to its tip; discal transverse vein straight, parted by more than its length from the border and from the flexure of the præbrachial; alulæ white. Length of the body 3 lines; of the wings 5 lines.

Subfam. Dexides, *Walk.*

Gen. Dexia, *Meigen.*

114. Dexia basifera, n. s. *Fœm.* Testaceo-alba, capitis antici lateribus palpisque fulvis, oculis nudis, antennis pallide luteis, thorace vittis quatuor nigris, abdomine fulvo fusiformi maculis trigonis nigris, macula fasciaque testaceis, pedibus nigris longis, femoribus fulvis apice nigris, tibiis ex parte fulvescentibus, alis cinereis apud venas nigricantibus, fascia basali obliqua alba, alulis albis.

Group of *D. longipes.*

Female. Testaceous white, narrow, bristly; head somewhat prominent; frontalia black, slightly widening towards the epistoma, with a few long stout black bristles on each side; facialia without bristles; epistoma not prominent; sides of the peristoma tawny and slightly pro-

duced; eyes bare; proboscis and palpi tawny, the former geniculated, rather long; antennæ pale luteous, 3rd joint lanceolate, not reaching the epistoma, thrice the length of the second; arista plumose: thorax with two slender deep black stripes and with two exterior broad blackish stripes; scutellum with six black spines: abdomen tawny, fusiform, longer than the thorax, with little black hairs, with several black spines, and with a triangular black spot on the hind border of each segment; 3rd segment with a testaceous spot at the base, 4th with a testaceous basal band: legs long, black; femora tawny, with black tips; tibiæ partly dark tawny: wings cinereous, blackish along the veins, with an oblique white basal band; costa black at the base; veins black, testaceous in the white part; præbrachial vein forming a slightly acute angle and emitting a short stump at its flexure, curved inward from thence to its tip; discal transverse vein undulating, parted by hardly more than half its length from the border, and by less than its length from the flexure of the præbrachial; alulæ white. Length of the body 5 lines; of the wings 10 lines.

Mas. Subaurato-cinerea, abdomine testaceo lanceolato longissimo fasciis maculisque trigonis nigris connexis, pedibus anticis longissimis, alis apud costam nigricantibus, venis vix nigricante marginatis.

Male. Pale gilded cinereous, narrow, bristly; frontalia piceous, widening much towards the epistoma, with bristles along each side; sides of the peristoma much produced; thorax with four deep black stripes, the outer pair rather broad; abdomen testaceous, lanceolate, twice the length of the thorax; hind border of each segment with a black band which is connected with a triangular black spot; legs very long, fore legs extremely long; wings blackish along the costa, hardly blackish along the veins; præbrachial vein curved slightly inward near its flexure, almost straight from thence to its tip. Length of the body 8 lines; of the wings 12 lines.

115. Dexia includens, n. s. *Fœm.* Atra, capite apud oculos albo, palpis antennis pedibusque nigris, thorace vittis duabus cinereis, abdomine lanceolato fasciis tribus albis late interruptis, pedibus longiusculis, alis nigricanti-cinereis, halteribus testaceis.

Female. Deep black; head cinereous in front, white about the eyes; vertex narrow; frontalia widening to the face, with bristles along each side; facialia without bristles; epistoma not prominent; palpi slender; antennæ reaching the epistoma, 3rd joint narrow, linear, about four times the length of the 2nd; thorax cinereous on each side, and with two cinereous stripes; abdomen lanceolate, setose, nearly twice the length of the thorax, with three widely interrupted white bands; legs rather long; wings blackish grey; veins black; præbrachial vein forming a very obtuse and slightly rounded angle at its flexure, almost straight from thence to its tip; discal transverse vein almost straight, parted by hardly less than its length from the border, and by much more than its length from the flexure of the præbrachial; alulæ

whitish; halteres testaceous. Length of the body $3\frac{1}{2}$ lines; of the wings 6 lines.

116. Dexia precedens, n. s. *Fœm.* Cinerea, capite albo lateribus anticis piceis, palpis pedibusque nigris, antennis testaceis, thorace vittis tribus nigris, abdomine basi lateribus fasciaque nigris, punctis lateralibus albis, pedibus longiusculis, alis cinereis, alulis albis.

Female. Cinereous; head white, piceous on each side in front; frontalia deep black, slightly widening to the face, with bristles along each side; facialia without bristles; epistoma not prominent; palpi and legs black; antennæ testaceous, not reaching the epistoma, 3rd joint not thrice the length of the 2nd; thorax with three black stripes, the the lateral pair abbreviated hindward; abdomen a little longer than the thorax, black and with white points along each side, black at the base and with a black band on the hind border of the 2nd segment; legs rather long; wings cinereous; veins black; præbrachial vein forming a rounded and very obtuse angle at its flexure, almost straight from thence to its tip; discal transverse vein nearly straight, parted by less than its length from the border, and by very much more than its length from the flexure of the præbrachial; alulæ white; halteres piceous. Length of the body $2\frac{1}{2}$ lines; of the wings 4 lines.

Gen. Torocca, n. g.

Fœm. Corpus gracile, sublineare. *Proboscis* palpique brevissimi. *Antennæ* brevissimæ, arista nuda. *Thorax* brevis. *Abdomen* longissimum, thorace plus duplo longius. *Pedes* longissimi. *Alæ* angustæ.

Female. Body slender, nearly linear. Head as broad as the thorax. Proboscis and palpi very short. Antennæ very short, not nearly extending to the epistoma; 3rd joint linear, rounded at the tip, about twice the length of the 2nd; arista bare, stout towards the base, full twice the length of the 3rd joint. Thorax short. Abdomen very elongate-fusiform, more than twice the length of the thorax. Legs very long. Wings narrow.

117. Torocca abdominalis, n. s. *Fœm.* Viridis, capite pectoreque albis, proboscide palpisque fulvis, antennis pedibusque nigris, abdomine fulvo segmentorum marginibus posticis vittaque dorsali nigris, alis nigricanti-cinereis, alulis albido-cinereis.

Female. Green, bristly; head and pectus white; frontalia deep black, widening to the face, with a row of bristles along each side; facialia without bristles; epistoma not prominent; eyes bare; proboscis and palpi tawny; antennæ black: abdomen tawny, with a few spines; hind borders of the segments black; 1st segment black at the base, and with a broad black stripe: legs black; wings blackish cinereous; veins black; præbrachial vein forming an almost right angle, and emitting a short stump at its flexure, nearly straight from thence to its tip; discal transverse vein very undulating, parted by about half its

length from the border, and by much less than its length from the flexure of the præbrachial; alulæ whitish cinereous. Length of the body $5\frac{1}{2}$ lines; of the wings 8 lines.

Subfam. SARCOPHAGIDES, *Walk.*

Gen. SARCOPHAGA, *Meigen.*

118. Sarcophaga invaria, *Walk.* See Vol. III. p. 103.

119. Sarcophaga aliena, *Walk.* See Vol. I. p. 22.

120. SARCOPHAGA MENDAX, n. s. *Mas.* Cinerea, capite albo, palpis antennis pedibusque nigris, thorace vittisque lineisque duabus nigris, abdomine tessellato vittis tribus nigris, vittis lateralibus e strigis lanceolatis, alis cinereis, alulis albis.

Male. Cinereous; head white, clothed behind and beneath with cinereous hairs; frontalia deep black, widening towards the face; palpi and antennæ black; thorax with five black stripes,the exterior pair incomplete, the middle cinereous intervals interlined; abdomen tessellated, with three black stripes,the lateral pair forming lanceolate streaks on the 3rd and 4th segments; legs black, very stout; wings grey; veins black; præbrachial vein forming a right angle at its flexure, near which it is curved inward, and is thence almost straight to its tip; discal transverse vein slightly curved near each end, parted by much less than its length from the border, and from the flexure of the præbrachial; alulæ white. Length of the body 6 lines; of the wings 10 lines.

121. SARCOPHAGA INEXTRICATA, n. s. *Fœm.* Cinerea, capitis lateribus anticis, palpis, antennis pedibusque nigris, thorace vittis tribus lineisque duabus nigris, abdomine fasciis tribus subinterruptis albidis, alis cinereis, alulis albis.

Female. Cinereous; head with black hairs behind and beneath; frontalia black, broad, slightly widening towards the face; a deep black space on each side of the face; palpi black, rather long; antennæ rather short, not nearly reaching the epistoma, 3rd joint slightly plumose; thorax with three black stripes, the two middle cinereous intervals interlined; abdomen with three broad slightly interrupted whitish bands; legs black, very stout; wings grey; veins black, slightly blackish-bordered; præbrachial vein forming a right angle at its flexure, near which it is curved inward, and is thence straight to its tip; discal transverse vein very slightly undulating, parted by much less than its length from the border and from the flexure of the præbrachial; alulæ white. Length of the body 5 lines; of the wings $8\frac{1}{2}$ lines.

Subfam. MUSCIDES, *Walk.*

Gen. IDIA, *Meigen.*

122. Idia australis, *Walk.* See Vol. III. p. 103.

123. Idia prolata, n. s. (Group Rhyncomya, *Desvoidy*). *Fœm.* Viridis, sat angusta, capite testaceo frontalibus facie maculisque duabus anticis nigris, antennis halteribusque testaceis, abdomine cyaneo purpureo cupreoque vario fasciis duabus aureo-viridibus, pedibus nigris, alis cinereis basi et apices versus fuscis.

Female. Green, rather narrow, with slight cinereous tomentum; head testaceous, white behind; frontalia and face black and shining, the former linear; a black spot on each side of the peristoma; epistoma rather prominent; eyes bare; antennæ testaceous, not near reaching the epistoma, 3rd joint about thrice the length of the 2nd; abdomen blue, tinged with purple and with cupreous, a little broader than the thorax, with two golden green bands which are widely interrupted above; legs black; wings grey, brown at the base and towards the tips, with the exception of the hind border; veins black; præbrachial vein forming a much rounded and very obtuse angle at its flexure, which is near the border, nearly straight from thence to its tip; discal transverse vein slightly curved outward, parted by much less than its length from the border, and by about its length from the flexure of the præbrachial; alulæ and halteres testaceous. Length of the body $3\frac{1}{2}$ lines; of the wings 5 lines.

Gen. Musca, *Linn.*

124. Musca prospera, n. s. (Gen. Silbomyia, *Macq.*). *Fœm.* Auratoviridis, capite argenteo, facie palpis antennis pedibusque nigris, oculis nudis, pectore maculis duabus argenteis, abdomine spinoso, apice purpureo maculis duabus argenteis, alis nigricantibus basi et apud costam nigris, alulis albis. *Var.* β. Thoracis disco cupreo, abdomine subtus cyaneo-purpureo. *Var.* γ. Abdominis disco cupreo, palpis fulvis.

Female. Deep golden green, thickly beset with very stout bristles; head silvery white; vertex green on each side; frontalia piceous, very broad, with long stout bristles on each side; facialia without bristles; face black, deeply keeled, the keel partly white; epistoma slightly prominent; eyes bare; palpi long, subclavate; antennæ almost reaching the epistoma, 3rd joint full four times the length of the 2nd; pectus with a silvery spot on each side; abdomen elongate-oval, a little longer than the thorax, with long stout spines hindward, purple at the tip, where there is a silvery spot on each side; legs black, very stout; wings blackish, black at the base and along part of the costa; veins black; præbrachial vein forming a rounded right angle at its flexure, near which it is curved inward, and is thence straight to its tip; discal transverse vein undulating, parted by more than half its length from the border and by less than half its length from the flexure of the præbrachial; alulæ white. *Var.* β. Disk of the thorax bright cupreous; abdomen blue and purple beneath. *Var.* γ. Like *Var.* β; palpi tawny; disk of the abdomen bright cupreous. Length of the body 7–8 lines; of the wings 12–14 lines.

125. Musca delectans, n. s. (n. subg. Isomyia). *Fœm.* Cuprea, capite cinereo lateribus anticis fulvis, palpis fulvis latiusculis, antennis rufescentibus, scutello aurato, viridi-abdominis fasciis pedibusque nigris, alis cinereis apud costam nigricantibus apud venas posticas subluridis, alulis albido-testaceis, halteribus fulvis.

Female. Bright cupreous, rather long; head cinereous, tawny and somewhat produced on each side of the peristoma; frontalia black, slightly widening towards the face, with a few bristles along each side; facialia without bristles; epistoma somewhat prominent; eyes bare; palpi tawny, rather broad; antennæ reddish, not near reaching the epistoma, 3rd joint about one-third of the length of the 2nd; scutellum mostly golden green; abdomen nearly oval, broader but hardly longer than the thorax, with a black band on the hind border of each segment; legs black; wings grey, blackish along the costa towards the base, slightly lurid along the hinder veins; veins black; præbrachial vein forming a slightly obtuse and rounded angle at its flexure, much curved inward from thence to its tip; discal transverse vein deeply undulating, parted by more than half its length from the border and by much more than half its length from the flexure of the præbrachial; alulæ whitish testaceous; halteres tawny. Length of the body 7 lines; of the wings 12 lines.

126. Musca ingens. n. s. (Gen. Calliphora, *Desv.*). *Fœm.* Nigricanti-cyanea, valde setosa, capite albo, palpis antennis pedibusque nigris, pectore cinereo, abdomine spinoso fasciis tribus argenteis late interruptis, alis nigricantibus margine postico cinereo, alulis albidis.

Female. Blackish blue, thickly beset with long stout bristles; head white; frontalia deep black, widening in front, with a few bristles on each side; facialia beset with bristles, except towards the frontalia; palpi and antennæ black, the latter reaching the epistoma, 3rd joint six times the length of the 2nd; pectus and sides of the thorax cinereous; abdomen a little longer and broader than the thorax, with spines towards the tip, and with three broadly interrupted silvery bands; legs black; wings blackish, cinereous along the hind border and in the disks of the hinder areolets; veins black; præbrachial vein forming a right and much rounded angle at its flexure, curved inward beyond, and thence nearly straight to its tip; discal transverse vein slightly undulating, parted by less than half its length from the border, and by full half its length from the flexure of the præbrachial; alulæ whitish. Length of the body 9 lines; of the wings 14 lines.

127. Musca promittens, n. s. (Gen. Ochromyia, *Macq.*). *Mas et Fœm.* Fulva, capite albo, palpis testaceis, tibiis supra tarsisque apice piceis, alis cinereis basi luridis. *Fœm.* Abdomine purpurascenti-cyaneo basi fulvo.

Male and Female. Tawny with black bristles; head white; frontalia

piceous, linear, with a few bristles along each side; facialia without bristles; epistoma rather prominent; eyes bare; palpi testaceous; antennæ almost reaching the epistoma, 3rd joint four times the length of the 2nd; abdomen of the female purplish blue, tawny towards the the base, broader but not longer than the thorax; tibiæ above, and tarsi towards the tips, piceous; wings grey, lurid towards the base; veins black, tawny towards the base; præbrachial vein forming a right and much rounded angle at its flexure, much curved inward from thence to its tip; discal transverse vein undulating, long, parted by more than half its length from the border, and by less than its length from the flexure of the præbrachial; alulæ testaceous. Length of the body 4–5 lines; of the wings 8–10 lines.

128. Musca favillacea, n. s. (n. subg. Anisomyia). *Fœm.* Fulva, longiuscula, capite antico palpisque testaceis, antennis cinereo-fulvis, thorace vittis tribus cinereis, abdomine nigro basi testaceo fasciis tribus argenteo-cinereis, alis cinereis. *Var.* β. Thorace cinereo, abdomine fulvo cinereo-tessellato segmentis nigro marginatis.

Female. Tawny, rather long, with black bristles; head testaceous in front, whitish and with whitish hairs beneath and hindward; frontalia extremely broad, with a cinereous line, beset with six bristles along each side; facialia without bristles; epistoma prominent; eyes bare; palpi testaceous; antennæ greyish tawny, reaching the epistoma, 3rd joint four times the length of the 2nd; thorax with three indistinct cinereous stripes; abdomen black, elongate-oval, a little longer and broader than the thorax, with a testaceous basal band, and with three silvery grey bands which are testaceous beneath, ventral segments wholly testaceous; wings cinereous; veins black, tawny towards the base; præbrachial vein forming a rounded and obtuse angle at its flexure, slightly curved inward from thence to its tip; discal transverse vein slightly undulating, parted by a little more than half its length from the border, and from the flexure of the præbrachial; alulæ testaceous. *Var.* β. Thorax cinereous; abdomen tawny, tessellated with cinereous, hind borders of the segments black. Length of the body 5–6 lines; of the wings 10–12 lines.

129. Musca obtrusa, *Walk.* See Vol. III. p. 105.

130. Musca flaviceps, *Macq.* See Vol. I. p. 23.

131. Musca selecta, n. s. (Gen. Lucilia, *Desv.*). *Fœm.* Aureo-viridis, longiuscula, capite testaceo, epistomate elevato, palpis fulvis, antennis pallide rufis, thorace vittis tribus cupreis, pedibus nigris, alis nigricanti-cinereis margine postico cinereo, alulis albidis testaceo marginatis, halteribus fulvis.

Female. Bright golden green, rather long; head testaceous, cinereous and with whitish hairs behind and beneath; frontalia deep black, linear, thickly beset with bristles along each side; epistoma prominent; palpi

tawny; antennæ pale red, not near reaching the epistoma, 3rd joint less than thrice the length of the 2nd; thorax with three slender bright cupreous stripes; abdomen wanting; legs black; wings blackish grey, grey along the hind border; veins black; præbrachial vein forming a very obtuse and much rounded angle at its flexure, slightly curved inward between the flexure and the tip; discal transverse vein undulating, parted by more than half its length from the border, and by much less than its length from the flexure of the præbrachial; alulæ whitish, with testaceous borders; halteres tawny. Length of the body 5 lines; of the wings 10 lines.

132. Musca sperata, n. s. (Gen. Lucilia, *Desv.*). *Mas.* Aureo-viridis, capite nigro-cinereo, proboscide palpis antennis pedibusque nigris, thoracis disco cupreo, alis cinereis basi et apud costam subluridis, alulis obscure cinereis.

Male. Golden green; head cinereous black; eyes bare; proboscis, palpi, and antennæ black, the latter not reaching the epistoma; disk of the thorax bright cupreous; abdomen shorter than the thorax; legs black; wings grey, with a lurid tinge at the base and along part of the costa; veins black; præbrachial vein forming a rounded and very obtuse angle at its flexure, hardly curved inward from thence to its tip; discal transverse vein very slightly curved inward behind the middle, parted by much less than its length from the border, and by hardly less than its length from the flexure of the præbrachial; alulæ dark grey. Length of the body 4 lines; of the wings 8 lines.

133. Musca inscribens, n. s. (Gen. Chrysomyia, *Desv.*). *Fœm.* Aureo-viridis, capite albo, palpis fulvis, antennis piceis, abdomine segmentorum marginibus pedibusque nigris, alis cinereis basi nigricantibus, alulis cinereo-albis.

Female. Deep bright green; head white; frontalia black, linear; palpi tawny; antennæ piceous, nearly reaching the epistoma; abdomen almost as long as the thorax, hind borders of the segments black; legs black; wings grey, blackish at the base; veins black; præbrachial vein forming an obtuse and rounded angle at its flexure, hardly curved inward from thence to its tip; discal transverse vein nearly straight, parted by little more than half its length from the border, and by much less than its length from the flexure of the præbrachial; alulæ cinereous with white borders, the upper pair white. Length of the body $4\frac{1}{2}$ lines; of the wings 8 lines.

134. Musca electa, n. s. (Gen. Lucilia, *Desv.*). *Mas et Fœm.* Viridis, capite albo, palpis antennis pedibusque nigris, alis cinereis, alulis albido-cinereis. *Fœm.* Frontis lateribus nigris. *Var.* β, *Mas.* Aureo-viridis.

Male and Female. Bright green; head white, that of the female black and shining on each side of the broad dull black frontalia; antennæ black, nearly reaching the epistoma; abdomen a little broader and shorter than the thorax; legs black; wings grey; veins black; præ-

brachial vein forming a very obtuse and much-rounded angle at its flexure, almost straight from thence to the border; discal transverse vein slightly curved inward in the middle, parted by much less than its length from the border, and by hardly less than its length from the flexure of the præbrachial; alulæ whitish cinereous; lower alulæ of the male dark cinereous. Length of the body $4\frac{1}{2}$ lines; of the wings 8 lines.

Male, Var. β. Golden-green; the four alulæ dark cinereous.

135. Musca fortunata, n. s. (Gen. Chrysomyia, *Desv.*). *Mas.* Subaurato viridis, capite albo, palpis fulvis, antennis piceis, abdomine segmentorum marginibus posticis cyaneis, pedibus nigris, alis obscure cinereis basi nigricantibus, alulis albidis.

Male. Bright green, slightly gilded; head white; eyes not contiguous; frontalia black, narrow, linear; palpi tawny; antennæ piceous, nearly reaching the epistoma; abdomen not longer than the thorax, hind borders of the segments dark blue; legs black; wings dark grey, blackish at the base; veins black; præbrachial vein forming an obtuse and slightly-rounded angle at its flexure, almost straight from thence to its tip; discal transverse vein hardly undulating, parted by little more than half its length from the border, and by much more than half its length from the flexure of the præbrachial; alulæ whitish. Length of the body 3–$3\frac{1}{2}$ lines; of the wings 6–7 lines.

136. Musca intrahens, n. s. (Gen. Lucilia, *Desv.*). *Fœm.* Cyanescenti-viridis, capite albo, palpis antennis pedibusque nigris, alis cinereis, alulis obscure cinereis, halteribus testaceis.

Female. Bright bluish green; head white; frontalia dull black; palpi, antennæ, and legs black; abdomen not longer than the thorax; legs black; wings grey; veins black; præbrachial vein forming a rounded and very obtuse angle at its flexure, straight from thence to its tip; discal transverse vein hardly bent inward, parted by more than half its length from the border, and by about its length from the flexure of the præbrachial; alulæ dark cinereous; halteres testaceous. Length of the body 3 lines; of the wings 6 lines.

This species very much resembles *M. electa*, but may be distinguished by its narrower body and by some slight differences in the veins of the wings.

137. Musca optata, n. s. (Gen. Pyrellia, *Desv.*). *Mas.* Viridis, capite albido, palpis antennis pedibusque nigris, alis cinereis, alulis cinereis testaceo marginatis.

Male. Bright green; head whitish in front; palpi and antennæ black; abdomen a little broader and shorter than the thorax; legs black; wings cinereous; veins black; præbrachial vein forming a gentle curve at the flexure, straight from thence to the tip; discal transverse vein straight, parted by much more than half its length from the border,

and by about its length from the flexure of the præbrachial; alulæ cinereous, with testaceous borders. Length of the body 3–3½ lines; of the wings 6–7 lines.

138. Musca proferens, n. s. (Gen. Pyrellia, *Desv.*). *Mas.* Nigricanti-viridis, palpis antennis pedibusque nigris, alis cinereis, alulis obscure cinereis, halteribus apice pallidis.

Male. Blackish-green, shining; eyes contiguous; palpi and antennæ black, the latter nearly reaching the epistoma; abdomen a little broader and shorter than the thorax; legs black; wings cinereous; veins black; præbrachial vein forming a gentle curve at its flexure, straight from thence to its tip; discal transverse vein straight, parted by more than half its length from the border, and hardly more than its length from the flexure of the præbrachial; alulæ dark cinereous; halteres with pale knobs. Length of the body 3 lines; of the wings 6 lines.

139. Musca refixa, *Walk.* See Vol. I. p. 26.

140. Musca gavisa, n. s. (n. subg. Neomyia). *Fœm.* Purpurea, pubescens, capite nigro, facie subobliqua, palpis antennis pedibusque nigris, abdomine lato crasso, alis fuscescenti-cinereis basi nigricantibus, alulis obscurioribus. *Var.* β. Viridescenti-cyanea, scutello purpureo.

Female. Brilliant purple; head black, shining, narrower than the thorax; frontalia dull, linear; face slightly oblique; palpi and antennæ black, the latter not reaching the epistoma; thorax and abdomen with thick black pubescence; abdomen very thick, shorter and much broader than the thorax; legs black; wings brownish grey, blackish at the base; veins black; præbrachial vein forming a much-rounded and very oblique curve at its flexure, hardly curved inward from thence to its tip; discal transverse vein hardly undulating, parted by much more than half its length from the border, and by much less than its length from the flexure of the præbrachial; alulæ dark brownish grey. *Var.* β. Bright greenish blue; scutellum purple. Length of the body 5 lines; of the wings 10 lines.

141. Musca domestica, *Linn.* See Vol. I. p. 128.

142. Musca conducens, n. s. *Mas.* Cinerea, capite albo, palpis antennis pedibusque nigris, thorace vittis duabus latis nigris, abdomine testaceo linea dorsali nigra basi apiceque cinereo-nigris, alis cinereis.

Male. Cinereous; head white; eyes bare; palpi slender, subclavate; antennæ not reaching the epistoma; thorax with two broad black stripes; abdomen dull testaceous, cinereous black at the base and towards the tip, and with a black dorsal line; wings cinereous; veins black; præbrachial vein forming a rounded and very obtuse angle at its flexure, slightly curved inward from thence to its tip; discal transverse vein curved inward, parted by full half its length from the border, and by a little more than its length from the flexure of the præ-

brachial; alulæ cinereous. Length of the body $2\frac{1}{2}$ lines; of the wings $4\frac{1}{2}$ lines.

143. Musca xanthomela, n. s. *Fœm.* Nigra, capite albido, abdomine ochraceo, alis subcinerascentibus, halteribus pallide testaceis.

Female. Black; head whitish about the eyes, which are red and bare; antennæ not reaching the epistoma; abdomen ochraceous, a little shorter than the thorax; wings slightly greyish; veins black, testaceous towards the base; præbrachial vein forming an obtuse angle at the flexure, straight from thence to the border; discal transverse vein straight, parted by less than its length from the border, and by more than its length from the flexure of the præbrachial; halteres pale testaceous. Length of the body $2\frac{1}{4}$ lines; of the wings 4 lines.

144. Musca prædicens, n. s. (Gen. Graptomyza, *Desv.*). *Fœm.* Nigra, capite albido-cinereo, palpis antennis pedibusque nigris, thorace vittis quatuor albido-cinereis, abdomine testaceo maculis nigris, alis cinereis, halteribus testaceis.

Female. Black; head whitish cinereous; frontalia deep black, linear, with bristles along each side; facialia without bristles; epistoma not prominent; proboscis and palpi black; antennæ reaching the epistoma, 3rd joint about four times the length of the 2nd; thorax with four stripes, metathorax and pectus whitish cinereous; abdomen testaceous; four black spots on each segment excepting the 1st; legs black; wings cinereous; veins black, testaceous towards the base; præbrachial vein forming a curve at its flexure, which is very near the border; discal transverse vein almost straight, parted by little more than half its length from the border, and by more than its length from the flexure of the præbrachial; alulæ and halteres testaceous. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

145. Musca collecta, n. s. *Mas.* Viridis, cinereo tomentosa, capite albo antice testaceo, palpis antennisque fulvis, abdomine testaceo apice viridi linea dorsali nigra, pedibus nigris, tibiis obscure fulvis, alis cinereis, halteribus testaceis.

Male. Green, with cinereous tomentum; head white, testaceous and rather prominent in front; eyes bare, contiguous; epistoma slightly prominent; proboscis black; palpi tawny; antennæ tawny, not near reaching the epistoma, 3rd joint not more than twice the length of the 2nd; arista simple, more than twice the length of the 3rd joint; abdomen testaceous, green towards the tip, with a black dorsal line; legs black; tibiæ dark tawny; wings grey; veins black, testaceous towards the base; præbrachial vein forming a very obtuse and much-rounded angle at its flexure, from whence it is hardly curved inward to its tip; discal transverse vein curved outward, parted by much more than half its length from the border, and by hardly less than its length from the flexure of the præbrachial; alulæ pale cinereous, with testaceous borders; halteres testaceous. Length of the body $2\frac{3}{4}$ lines; of the wings 5 lines.

Subfam. Anthomyides, *Walk.*

Gen. Aricia, *Macq.*

146. Aricia significans, *Walk.* See Vol. III. p. 107.

147. Aricia contraria, n. s. *Mas et Fœm.* Picea, capite argenteo, palpis pedibusque nigris, antennis testaceis, scutello fulvo, abdomine nigro, alis cinereis basi et apud costam subluridis.

Male and Female. Piceous, head silvery about the eyes; frontalia dull black; palpi and legs black; antennæ testaceous, reaching the epistoma, 3rd joint about four times the length of the 2nd; thorax with four indistinct cinereous stripes; scutellum tawny; abdomen black, shining, a little broader but not longer than the thorax; wings grey, rather broad, with a lurid tinge towards the base and along the costa; veins black, tawny towards the base; discal transverse vein hardly undulating, or slightly curved inward, parted by much more than its length from the præbrachial, and by much less than its length from the border. Length of the body 3–4 lines; of the wings 6–8 lines.

148. Aricia integra, n. s. *Mas.* Testaceo-cinerea, capite albo, palpis nigris, antennis testaceis basi nigris, thorace lineis quatuor nigris postice obsoletis, pedibus fulvis, tarsis piceis, alis cinereis apud costam subluridis, halteribus testaceis.

Male. Testaceous-cinereous; head white; frontalia deep black, widening in front; palpi black; antennæ testaceous, black at the base, nearly reaching the epistoma, 3rd joint about four times the length of the 2nd; thorax with four black lines which are obsolete hindward; abdomen nearly oval, not longer than the thorax; legs tawny; tarsi piceous; wings grey, with a slight lurid tinge towards the costa; veins black; discal transverse vein curved inward towards the base, parted by about its length from the præbrachial transverse, and by much less than its length from the border; alulæ and halteres testaceous. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

149. Aricia nigricosta, n. s. *Mas et Fœm.* Cinerea, capite argenteo, palpis nigris, antennis piceis, thorace vittis quatuor nigris, abdomine maculis quatuor nigris, pedibus fulvis, alis cinereis apud costam subluridis, costa nigra.

Male and Female. Cinereous; head silvery white; palpi black; antennæ piceous, tawny at the base, reaching the epistoma, 3rd joint about four times the length of the 2nd; thorax with four black stripes; abdomen nearly oval, not longer than the thorax, 2nd and 3rd segments with two black spots on each; legs tawny; tarsi black; wings cinereous, with a lurid tinge along the costa, which is black; veins black, tawny towards the base; discal transverse vein slightly bent inward, parted by about its length from the præbrachial transverse, and by much less than its length from the border. Length of the body 4 lines; of the wings 8 lines.

Gen. Spilogaster *Macq.*

150. Spilogaster xanthoceras, n. s. *Fœm.* Alba, capite argenteo, palpis pedibusque nigris, antennis pallide testaceis basi nigris, thoracis fascia lata scutelloque nigris, thorace vitta fasciisque duabus nigris, alis cinereis apud costam subluridis.

Female. White; head silvery white; frontalia broad, deep black; proboscis, palpi, and legs black; antennæ pale testaceous, reaching the epistoma, black at the base, 3rd joint about four times the length of the 2nd; thorax with a broad black band; scutellum black; abdomen cinereous, elongate, with a slender black stripe and with two black bands; wings cinereous, with a lurid tinge along the costa; veins black, tawny towards the base; discal transverse vein bent inward towards the base, parted by hardly more than its length from the præbrachial transverse, and by much less than its length from the border; alulæ white. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

Gen. Anthomyia, *Meigen.*

151. Anthomyia procellaria, *Walk.* See Vol. III. p. 108.

Gen. Lispe, *Meigen.*

152. Lispe bimaculata, n. s. *Fœm.* Nigra, capite atro antice aurato subtus albido, pectore pedibusque cinereis, abdomine vitta cinerea maculis duabus subapicalibus albis, femoribus intermediis basi dilatatis, alis cinereis, halteribus testaceis.

Female. Black; head deep black above, gilded in front, whitish on each side beneath; pectus and legs cinereous; abdomen with a slender cinereous stripe, and with a white spot on each side near the tip; knees pale; middle femora dilated at the base; wings cinereous; veins black, tawny at the base; discal transverse vein parted by less than its length from the border, and by about twice its length from the præbrachial transverse; halteres testaceous. Length of the body 3 lines; of the wings 6 lines.

Gen. Cænosia, *Meigen.*

153. Cænosia luteicornis, *Walk.* (see Vol. III. p. 108). *Fœm.* Cana, capite aurato, frontalibus pedibusque fulvis, palpis albis, antennis pallide luteis, abdomine subtestaceo apice cano maculis quatuor nigris, alis cinerascentibus, halteribus testaceis.

This is probably the female of *C. luteicornis*, though the wings have no trace of an apical spot.

Female. Hoary; head pale gilded, hoary behind and beneath; frontalia tawny, widening slightly in front; palpi white; antennæ pale luteous, reaching the epistoma, 3rd joint linear, rounded at the tip, six times the length of the 2nd; arista plumose to full half its length; abdomen dull testaceous, hoary towards the tip, where it is very bristly

above, 3rd and 4th segments with a black dorsal spot on each, 4th and 5th segments with a black spot on each side; legs tawny; tarsi piceous; wings greyish; veins black, testaceous at the base; discal transverse vein parted by a little less than its length from the border, and by much more than its length from the præbrachial transverse; alulæ pale cinereous; halteres testaceous. Length of the body 3 lines; of the wings 6 lines.

154. Cænosia signata, n. s. *Fœm.* Cinereo-fulva, capite antennis pedibus halteribusque testaceis, thoracis vittis quatuor scutelli disco abdominisque vitta nigris, alis cinereis subluridis.

Female. Cinereous-tawny; head testaceous, white about the eyes; antennæ testaceous, not near reaching the epistoma, 3rd joint elongate-conical, about twice the length of the 2nd; arista plumose to the tip; thorax with four black stripes, the outer pair interrupted; disk of the scutellum black; abdomen with a black stripe, which is interrupted on the hind border of each segment; legs testaceous; wings grey with a slight lurid tinge; veins tawny, costal vein black, discal transverse vein parted by little more than half its length from the border, and by about twice its length from the præbrachial transverse; halteres testaceous. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

155. Cœnosia respondens, n. s. *Fœm.* Cana, capite apud oculos albo, palpis albidis, antennis halteribusque testaceis, thorace lineis tribus nigris, abdomine subfusiformi e maculis nigris trivittato, pedibus nigris, femoribus apice tibiisque fulvis, alis cinereis, alulis albis.

Female. Hoary; head white about the eyes; frontalia reddish; palpi whitish; antennæ testaceous, 3rd joint long, slender, nearly reaching the epistoma; thorax with three black lines; abdomen nearly fusiform, a little longer than the thorax, with three black spots on each segment, legs black, femora towards the tips and tibiæ tawny; wings grey; discal transverse vein parted by about twice its length from the præbrachial transverse, and by about its length from the border; alulæ white; halteres testaceous. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

Subfam. Helomyzides, *Fallen.*

Gen. Xarnuta, *Walk.*

156. Xarnuta leucotelus, *Walk.* See Vol. I. p. 28.

Gen. Cordylura, *Fallen.*

157. Cordylura bisignata, n. s. *Mas.* Nigra, vix nitens, antennis breviusculis, arista pubescente, abdomine cylindrico maculis duabus lateralibus albis, pedibus non spinosis, alis obscure cinereis, alulis albis.

Male. Black, hardly shining; head white behind, testaceous towards the epistoma; antennæ not near reaching the epistoma, 3rd joint

linear, rounded at the tip, full twice the length of the second; arista pubescent; abdomen cylindrical, a little longer than the thorax, with a white spot on each side in the middle; legs unarmed, moderately long; wings dark grey; veins black; discal transverse vein straight, upright, parted by a little less than its length from the border, and by full twice its length from the præbrachial transverse; alulæ white. Length of the body 2 lines; of the wings $3\frac{1}{2}$ lines.

Gen. Helomyza, *Fallen.*

158. Helomyza observans, n. s. *Mas.* Fulva, antennarum articulo 3° conico brevi, arista plumosa, abdomine guttis quatuor dorsalibus nonnullisque ventralibus nigris, segmentis albido marginatis, alis subcinereis.

Male. Tawny, with a few black bristles; antennæ short, 3rd joint conical, less than twice the length of the 2nd; arista plumose; abdomen conical, not longer than the thorax, hind borders of the segments whitish, fourth segment with a black dot, fifth segment with three black dots, some black dots along each side beneath; wings greyish; veins black, testaceous at the base; discal transverse vein straight, upright, parted by full half its length from the border, and by nearly twice its length from the præbrachial transverse. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

159. Helomyza tripunctifera, n. s. *Fœm.* Fulva, antennarum articulo 3° conico, arista plumosa, abdomine fasciis pallidis guttaque apicali atra, alis cinereis antice subluridis.

Female. Tawny, with black bristles; head whitish about the eyes; third joint of the antennæ conical, hardly twice the length of the 2nd; arista plumose to the tip; abdomen with a pale band on the hind border of each segment, and with a black apical dot; wings grey, with a lurid tinge in front; veins black; discal transverse vein straight, upright, clouded with brown, parted by less than its length from the border, and by more than twice its length from the præbrachial transverse. Length of the body 2 lines; of the wings 4 lines.

160. Helomyza copiosa, n. s. *Fœm.* Cinerea, capite vitta testacea, antennis fulvis brevissimis basi nigris, arista plumosa, thorace maculis plurimis fuscis, scutello fulvo basi nigro, abdomine nigro vitta et segmentorum marginibus posticis fulvis, tibiis fulvo cinctis, alis cinereis nigricante maculatis.

Female. Cinereous; head slightly ferruginous, with a dull testaceous stripe on the front, whitish about the eyes; epistoma not prominent; antennæ tawny, black towards the base, very short, not extending beyond half the length of the face, 3rd joint conical, much longer than the 2nd; arista plumose; thorax with three rows of various brown spots; scutellum tawny, black at the base; pectus with brown spots; abdomen black, oval, not longer than the thorax, with a stripe

and the hind borders of the segments tawny: legs black, short; tibiæ tawny, black at the base and at the tips: wings grey, slightly lurid in front, with numerous partly confluent blackish spots; veins black; discal transverse vein straight, upright, parted by much less than its length from the border, and by about twice its length from the præbrachial transverse; halteres tawny. Length of the body $2\frac{1}{2}$ lines; of the wings 4 lines.

Gen. Sciomyza, *Fallen*.

161. Sciomyza replena, n. s. *Fœm.* Picea, capite ferrugineo lituris albis, antennis pedibus thoracisque vittis quatuor rufescentibus, abdomine nigro fasciis rufescentibus, femoribus nigris, tibiis nigro bifasciatis, alis nigricantibus albido trifasciatis margine postico cinereo.

Female. Piceous; head with several black bristles, white about the eyes, ferruginous above, with a white transverse line hindward, with a partly black partly white mark on each side, and with an abbreviated whitish streak in the middle; antennæ reddish, piceous towards the tips, 3rd joint conical, less than twice the length of the 2nd; arista plumose; thorax with four reddish stripes, the outer pair incomplete; abdomen black, with a reddish band on the fore border of each segment; legs reddish, femora black, tibiæ with two black bands; wings blackish, with three irregular abbreviated whitish bands, cinereous along the hind border; veins black; discal transverse vein straight, upright, parted by less than its length from the border, and by nearly twice its length from the præbrachial transverse; halteres testaceous. Length of the body $2\frac{3}{4}$ lines; of the wings 5 lines.

162. Sciomyza? leucomelana. n. s. *Fœm.* Picea, nitens, subtus alba, capite plano, antennis rufis apice nigris, arista plumosa, abdomine nigro, pedibus halteribusque testaceis, alis nigricantibus acutis.

Female. Piceous, shining; head flat above, a little narrower than the thorax; epistoma, sides of the peristoma, under side and disk of the pectus white; antennæ red, reaching the epistoma, third joint elongate-conical, black towards the tip; arista plumose; scutellum large; abdomen oval, black, hardly longer or broader than the thorax; legs short, testaceous; wings blackish, paler along the hind border, rather pointed at the tips; costa very convex; veins black, radial vein slightly curved, cubital vein and præbrachial vein converging towards the tip; discal transverse vein nearly straight and upright, parted by more than its length from the border, and by nearly twice its length from the præbrachial transverse; halteres testaceous. Length of the body 2 lines; of the wings 4 lines.

Gen. Amblada, n. g.

Fœm. Corpus sat robustum. *Caput* transversum, thorace vix angustius. *Antennæ* capitis latitudine breviores; articulus 3^{us} lanceolatus,

2° longior; arista pubescens. *Abdomen* brevi-ovatum, thorace multo brevius. *Pedes* simplices. *Alæ* mediocres.

Female. Body moderately stout. Head transverse, almost as broad as the thorax, somewhat flat above; proboscis and palpi very short. Antennæ shorter than the breadth of the head; 3rd joint lanceolate, longer than the 2nd; arista pubescent. Abdomen short-oval, much shorter than the thorax. Legs simple, moderately long. Wings of moderate size; veins of the usual structure.

163. AMBLADA ATOMARIA, n. s. *Fœm.* Cinerea, capite guttis quatuor fuscis maculisque duabus atris, arista alba filiformi, thorace lineis duabus punctisque plurimis fuscis, abdomine fulvo segmentorum marginibus nigro punctatis, pedibus fulvis, tibiis albidis nigro bifasciatis, alis lurido-cinereis.

Female. Cinereous; head white about the eyes, with two brown dots on each side of the vertex, and with a deep black spot on each side in front; antennæ cinereous-brown; arista white, filiform, seated on the base of the 3rd joint, which it much exceeds in length; thorax with two slender brown lines and with very numerous brown points; abdomen tawny, with black points on the hind borders of the segments; legs tawny; tibiæ dingy whitish, with two black bands on each; wings grey, with a lurid tinge; veins tawny, black by the costa at the base; discal transverse vein straight, upright, parted by less than its length from the border, and by full twice its length from the præbrachial transverse; halteres testaceous. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

Gen. SEPEDON, *Latr.*

164. Sepedon Javanensis, *Desv. Essai Myod.* 677. 2.
Inhabits also Java.

Subfam. LAUXANIDES, *Walk.*

Gen. LONCHŒA, *Fallen.*

165. LONCHŒA? PUNCTIPENNIS. *Fœm.* Nigra, nitens, capite antico argenteo, antennarum articulo 3_o longe-conico, arista plumosa, tarsis halteribusque piceis, alis cinereis basi nigris puncto costali nigro.

Female. Black, shining, with several stout bristles; head silvery in front; face flat; antennæ short; third joint elongate-conical, arista very plumose; abdomen oval, convex, a little shorter and narrower than the thorax; tarsi and halteres piceous; wings grey, black at the base, with a black costal point at the tip of the subcostal vein; veins yellowish, black at the base; costal vein black; discal transverse vein straight, upright, parted by less than its length from the border, and by nearly twice its length from the præbrachial transverse. Length of the body $2\frac{1}{4}$ lines; of the wings $4\frac{1}{2}$ lines.

166. Lonchœa? consentanea, n. s. *Fœm.* Nigra, nitens, arista nuda, abdomine cyanescente-nigro, alis cinereis, halteribus albis.

Female. Black, shining; antennæ black, nearly reaching the epistoma; 3rd joint linear, about thrice the length of the 2nd; arista simple; abdomen bluish black; wings grey; veins black, testaceous at the base; discal transverse vein straight, upright, parted by less than its length from the border and by more than twice its length from the præbrachial transverse; halteres white. Length of the body 2 lines; of the wings $3\frac{1}{2}$ lines.

167. Lonchœa? atratula, n. s. *Fœm.* Atra, pubescens, antennis epistoma attingentibus, arista plumosa, abdomine subovato, alis nigricantibus.

Female. Deep black, pubescent, not shining; antennæ reaching the epistoma; 3rd joint linear, rounded at the tip, about four times the length of the 2nd; arista plumose; abdomen somewhat oval, a little broader but hardly longer than the thorax; wings blackish; veins black; discal transverse vein straight, upright, parted by less than its length from the border, and by about twice its length from the præbrachial transverse. Length of the body 2 lines; of the wings $3\frac{1}{2}$ lines.

Gen. Thressa, n. g.

Fœm. Corpus breve, crassum. *Caput* thorace multo latius. *Oculi* magni. *Antennæ* epistoma fere attingentes; articulus 3^{us} linearis, 2^{o} plus duplo longior; arista plumosa. *Abdomen* subovatum, thorace non longius. *Pedes* longiusculi. *Alæ* parvæ.

Female. Body short, thick. Head much broader than the thorax; front wide. Eyes large. Antennæ nearly reaching the epistoma; 3rd joint linear, rounded at the tip, more than twice the length of the 2nd; arista plumose. Thorax a little longer than broad; scutellum rather prominent. Abdomen nearly oval, not longer than the thorax. Legs rather short. Wings small; costal vein ending at the tip of the wing; radial vein very near the costa; cubital vein ending at a little in front of the tip; transverse veins much retracted, very short.

168. Thressa signifera, n. s. *Fœm.* Nigra, nitens, capite cyaneo, antennis pedibusque fulvis, thorace strigis duabus lateralibus albis, femoribus nigris, alis hyalinis apud costam nigris, halteribus albis. *Var.* β. Alis apud costam hyalinis macula apicali nigra.

Female. Black, shining; head blue; antennæ tawny; thorax with a white transverse streak on each side; legs tawny; femora black, with tawny tips; wings hyaline, black along the costa; veins black; discal transverse vein parted by four times its length from the border, and by six times its length from the præbrachial transverse; halteres white. *Var.* β. Wings not black along the costa, with the exception of a black apical spot. Length of the body $1\frac{1}{2}$ line; of the wings $2\frac{1}{2}$ lines.

Gen. Ochthiphila, *Fallen*.

169. Ochthiphila discoglauca, n. s. *Fœm*. Fusca, capite thoracisque disco glucescente-albidis, arista plumosa, thorace lineis duabus lateralibus albidis, abdomine lineis transversis vittaque albidis, tibiis tarsisque rufescentibus, alis cinereis, halteribus testaceis.

Female. Brown; head glaucous-whitish; antennæ black, nearly reaching the epistoma; third joint conical, arista plumose; thorax with a very broad glaucous-whitish stripe, a whitish line on each side and two on each side of the pectus; abdomen oval, a little shorter than the thorax, with a whitish band on the hind border of each segment and with a whitish stripe, the whitish hue appearing tawny in some aspects; tibiæ and tarsi reddish; wings grey; veins black; discal transverse vein straight, upright, parted by much less than its length from the border, and by nearly twice its length from the præbrachial transverse; halteres testaceous. Length of the body 2 lines; of the wings 4 lines.

Gen. Celyphus, *Dalman*.

170. Celyphus obtectus, *Dalman*. See Vol. I. p. 30.

171. Celyphus scutatus, *Wied*. See Vol. I. p. 131.

Subfam. Ortalides, *Haliday*.

Gen. Lamprogaster, *Macq*.

172. Lamprogaster marginifera, *Walk*. See Vol. II. p. 111.

Gen. Pterogenia *Bigot*, MSS.

Mas et Fœm. *Platystomati* affinis. *Corpus* breve, latum, crassum. *Caput* thorace latius, antice planum, genis dilatatis. *Antennæ* parvæ; articulus 3^{us} longi-conicus; arista plumosa. *Thorax* subconvexus; scutellum magnum. *Abdomen* thorace brevius et angustius. *Pedes* breves, validi; tibiæ arcuatæ. *Alæ* sat parvæ; alulæ maximæ. *Mas*. Genæ angulatæ, valde dilatatæ.

This genus is allied to *Platystoma*, and more especially to *Trigonosoma*.

Male and Female. Body short, broad, thick. Head broader than the thorax, flat in front; vertex broad; sides of the face or genæ dilated; epistoma rather prominent. Eyes oblong. Antennæ small, resting in the cavity of the broad face; 3rd joint elongate-conical, more than twice the length of the 2nd; arista plumose. Thorax compact, slightly convex; scutellum large, conical. Abdomen short, conical, shorter and narrower than the thorax. Legs short, stout; tibiæ curved, especially the hind pair. Wings rather small; alulæ very large. *Male*. Sides of the face more dilated than those of the female, and forming an angle or short horn on each side.

173. Pterogenia singularis, *Bigot*, MSS. *Mas et Fœm*. Nigra, nitens, capite flavescente-albo fasciis quatuor nigris, antennis pallide

luteis basi nigris, abdominis segmentis flavo marginatis, tarsis albis apice nigris, alis subcinereis dimidio basali lutescente fasciis contiguis fuscis, fascia strigisque exterioribus fuscis, halteribus fulvis.

Male and Female. Black, shining. Head yellowish-white, with four black bands; 1st band on the vertex, broader than the others; 2nd across the base of the antennæ; 3rd in front of the face; 4th on the epistoma; antennæ pale luteous, black at the base; hind borders of the abdominal segments yellow; sides dark tawny towards the base; legs pubescent; tarsi white, with black tips; wings slightly cinereous; basal half somewhat luteous, with several partly confluent brown bands, exterior part with one brown band and with several transverse brown streaks; veins black, pale luteous exteriorly; discal transverse vein slightly curved outward, parted by about one-third of its length from the border, and by more than its length from the præbrachial transverse; alulæ white; halteres tawny. Length of the body 3 lines; of the wings 7 lines.

Gen. Platystoma, *Latr.*

174. Platystoma atomarium, n. s. *Mas.* Cinereum, nigro pulverosum, facie alba nigro biguttata, antennis pedibusque nigris, arista plumosa, pectore albido, alis nigricantibus guttis plurimis limpidis.

Male. Cinereous; head flat above, white about the eyes; face white, with a black dot on each side in front; antennæ black, nearly extending to the peristoma; 3rd joint linear, rounded at the tip, more than twice the length of the 2nd; arista plumose; thorax with numerous lines of minute black points; pectus whitish, with black points; abdomen oval, powdered with black, not longer than the thorax; legs short, stout, black; wings blackish, covered with limpid dots, excepting a narrow oblique band on the transverse veins; veins black; discal transverse vein straight, upright, parted by less than half its length from the border, and by a little more than half its length from the præbrachial transverse. Length of the body $2\frac{1}{2}$ lines; of the wings $4\frac{1}{2}$ lines.

175. Platystoma basale, n. s. *Fœm.* Cinerea, capite lineis tribus albidis, antennis basi nigris, arista plumosa, thorace vittis indistinctis fuscis maculisque lateralibus nigris testaceo-marginatis, scutello nigro vitta cinerea, abdominis segmentis albido-marginatis, femoribus anticis tibiisque albido fasciatis, alis subcinereis lituris transversis fascia exteriore costam versus dilatata fasciaque subapicali nigricantibus, halteribus albis.

Female. Cinereous; head white about the eyes and beneath, and with three whitish lines on the front; epistoma not prominent; proboscis large; antennæ black towards the base, not near reaching the epistoma; 3rd joint elongate-conical, about twice the length of the 2nd; arista plumose; thorax with indistinct brown stripes, and on each side

with black shining testaceous-bordered spots; scutellum black, shining, with a cinereous stripe; abdomen cinereous-black, oval, tawny on each side at the base, a little shorter and narrower than the thorax; hind borders of the segments whitish; legs black; tibiæ and fore femora with a whitish band on each; wings slightly greyish, with several irregular transverse blackish marks near the base, with a broad exterior blackish band, which is dilated and contains a whitish streak towards the costa, and with an irregular subapical blackish band; veins black; discal transverse vein nearly straight and upright, parted by more than half its length from the border, and by nearly twice its length from the præbrachial transverse; halteres white. Length of the body $2\frac{1}{2}$ lines; of the wings $4\frac{1}{2}$ lines.

Gen. Dacus, *Fabr.*

176. Dacus divergens, n. s. *Mas.* Purpureus, longus, angustus; fronte tumida, facie carinata fulvo maculata, palpis fulvis, antennis piceis, arista alba subpubescente, thorace vittis tribus cinereis, abdomine fusiformi apicem versus cylindrico et cyaneo, pedibus piceo-nigris, femoribus fulvis, tarsis posticis rufescentibus, alis cinereis apices versus et apud venas transversas fuscis, halteribus albido-flavis.

Male. Bluish purple, long, slender; head whitish about the eyes; front tumid, convex; face keeled, with a large elongated tawny spot; palpi tawny; antennæ piceous, reaching the epistoma, tawny at the base; 3rd joint linear, conical at the tip, six times the length of the 2nd; arista white, minutely pubescent, very much longer than the 3rd joint; thorax slightly compressed, with three cinereous stripes; pectus cinereous; abdomen fusiform, cylindrical, and mostly blue towards the tip, very much longer than the thorax; legs piceous black; femora tawny; hind tarsi reddish except at the tips; wings cinereous, brown on the fore part towards the tips and about the transverse veins, the brown part including a curved cinereous streak between the cubital and præbrachial veins; veins black; præbrachial vein very slightly undulating; discal transverse vein curved outward, parted by one-fourth of its length from the border, and by much more than its length from the oblique præbrachial transverse; halteres whitish yellow. Length of the body 7 lines; of the wings 12 lines.

The genus *Dacus* includes many distinct forms, and will probably be soon divided into numerous subgenera; the characters of the preceding species differ much from those of the type, *D. Oleæ*. Some of the following species may belong to *Senopterina*, Macq.

177. Dacus addens, n. s. *Fœm.* Cyaneus, longus, angustus, capite nigro, facie plana perobliqua, arista cinerea nuda, thorace vittis tribus cinereis, abdomine æneo-viridi, tibiis tarsis halteribusque nigris, alis cinereis apud costam et apud venam transversam discalem nigricantibus.

Female. Blue, long, narrow; head black, depressed above, white about the eyes; face very oblique, forming before the front a protuberance on which the antennæ are seated, its fore part oblong quadrate, almost flat, with whitish furrows for the antennæ; palpi and antennæ black, the latter reaching the epistoma; 3rd joint linear, rather obtuse at the tip, six times the length of the 2nd; arista cinereous, bare, hardly longer than the 3rd joint; thorax with three indistinct cinereous stripes; abdomen æneous-green, nearly linear, slightly compressed, much longer than the thorax; oviduct protuberant, slender; legs short, stout; tibiæ and tarsi black; wings grey, blackish along the costa and about the transverse veins; veins and halteres black; discal transverse vein straight, upright, parted by full one-fourth of its length from the border, and by much more than its length from the præbrachial transverse. Length of the body 6 lines; of the wings 12 lines.

178. Dacus bilineatus, n. s. *Fœm.* Fulvus, longiusculus, nigro bivittatus, capite antennisque rufescentibus, arista plumosa, palpis porrectis; pedibus breviusculis nigro fasciatis, alis cinereis, costa venaque transversa discali fusco nebulosis, halteribus testaceis.

Female. Tawny, rather long; head reddish in front; epistoma rather prominent; palpi porrect; antennæ reddish, nearly reaching the epistoma; 3rd joint linear, rounded at the tip, about thrice the length of the 2nd; arista somewhat plumose; thorax elongate-elliptical, with two black stripes; abdomen lanceolate, shining, with two broad black stripes, longer than the thorax; legs rather short, with diffuse black bands; wings grey, brownish along the costa and about the discal transverse vein; veins black, tawny at the base; discal transverse vein nearly straight and upright, parted by one-fourth of its length from the border, and by much more than its length from the præbrachial transverse; halteres testaceous. Length of the body 4 lines; of the wings 7 lines.

179. Dacus imitans, n. s. *Fœm.* Cyaneus, angustus, capite atro, antennis pedibusque nigris, tarsis posticis basi albidis, alis cinereis, costa vittaque nigris, halteribus piceis.

This species is closely allied to *D. longivitta*, and *D. exigens* and *D. contrahens* belong to the same group,

Female. Dark blue, narrow, with slight cinereous tomentum; head deep black above, white about the eyes; peristoma very prominent; proboscis large; antennæ black, nearly reaching the epistoma; 3rd joint linear, conical at the tip, about four times the length of the 2nd; arista bare, slender; abdomen fusiform, narrower and a little longer than the thorax; oviduct protuberant, slender; legs black, moderately long; first joint of the hind tarsi whitish above; wings cinereous, black along most of the costa to the tips, and black on the space between the cubital and præbrachial veins as far as the præbrachial transverse vein; discal transverse vein straight, upright, parted by

less than half its length from the border, and by very much more than its length from the præbrachial transverse ; halteres piceous. Length of the body $3\frac{1}{2}$ lines ; of the wings 6 lines.

180. Dacus exigens, n. s. *Mas.* Viridescente cyaneus, angustus, capite rufescente piceo, antennis luteis, arista nuda, thorace vittis tribus cinereis, pedibus fulvis, alis cinereis striga costali apiceque fuscis, halteribus testaceis.

Male. Greenish blue, narrow ; head reddish, piceous above, white about the eyes, black in front ; antennæ luteous, reaching the epistoma ; 3rd joint slightly lanceolate, full four times the length of the 2nd ; arista slender, simple ; thorax with three cinereous stripes ; abdomen almost cylindrical, much longer than the thorax ; legs tawny ; tarsi black towards the tips ; wings grey, brown at the tips and with a brown streak on the middle of the costa ; veins black, tawny towards the base ; discal transverse vein straight, upright, clouded with brown, parted by less than half its length from the border, and by much more than its length from the præbrachial transverse ; halteres testaceous. Length of the body $3\frac{1}{4}$ lines ; of the wings $5\frac{1}{2}$ lines.

181. Dacus contrahens, n. s. *Fœm.* Cyaneus, angustus, capite supra atro apud oculos albo, antennis luteis, thorace vittis tribus cinereis, pedibus piceis, alis cinereis vitta costali interrupta nigricante, vena transversa discali nigricante nebulosa, halteribus albidis.

Female. Dark blue, narrow ; head deep black above, white about the eyes, piceous in front ; antennæ luteous, reaching the epistoma ; 3rd joint linear, conical at the tip, about six times the length of the 2nd ; arista slender, simple ; thorax with three cinereous stripes ; abdomen compressed, a little longer than the thorax ; legs piceous ; wings grey, with a blackish interrupted costal stripe, which is dilated at the tip of the wing ; veins black ; discal transverse vein clouded with blackish, parted by half its length from the border, and by a little more than its length from the præbrachial transverse ; halteres whitish. Length of the body 3 lines ; of the wings 5 lines.

182. Dacus inaptus, n. s. *Mas et Fœm.* Viridis, capite atro, facie fulva basi alba, antennis piceis, pedibus halteribusque nigris, alis angustis cinereis.

Male and Female. Green, with slight cinereous tomentum ; head deep black, white about the eyes ; face tawny, white at the base ; antennæ piceous, reaching the epistoma ; 3rd joint lanceolate, full four times the length of the 2nd ; arista bare, long, slender ; thorax long, slightly compressed ; abdomen slightly compressed at the base, linear, narrower and a little shorter than the thorax in the male, fusiform and much attenuated towards the tip in the female ; legs black, moderately long ; wings narrow, cinereous ; veins black, straight ; discal transverse vein straight, upright, parted by less than half its length from the border, and by almost twice its length from the præbrachial trans-

verse; halteres black. Length of the body $3\frac{1}{2}$–$4\frac{1}{2}$ lines; of the wings 6–8 lines.

183. Dacus terminifer, n. s. *Fœm.* Niger, nitens, breviusculus, capite rufescente, antennis fulvis, arista nuda, scutello pectorisque maculis duabus flavis, pedibus breviusculis, tibiis anterioribus femoribus posticis basi tarsisque albidis, alis vitreis, striga costali puncto apicali vittaque postica nigricantibus, halteribus testaceis.

Female. Black, shining, rather short; head reddish above; antennæ tawny, reaching the epistoma; 3rd joint linear, piceous towards the tip, which is rounded, about six times the length of the 2nd; arista slender, bare; scutellum dull yellow; pectus with an oblique yellow spot on each side; abdomen hardly broader than long, a little broader and shorter than the thorax; legs rather short; tarsi and anterior tibiæ whitish; hind femora whitish towards the base; wings vitreous, with a short black stripe extending from the base to near the hind border; costa with a blackish streak in the middle and with a blackish apical point; discal transverse vein straight, upright, parted by about one-third of its length from the border, and by more than its length from the præbrachial transverse, which is oblique and unusually long; halteres testaceous. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

184. Dacus emittens, n. s. *Mas et Fœm.* Fulvus, facie brevi nigro biguttata, antennis pallide luteis, arista nuda, thorace lineis quinque rufescentibus, disco nonnunquam nigricante-cinereo, scutello callisque humeralibus flavis, abdomine nigro-fasciato, alis vitreis fusco plus minusve strigatis, halteribus albido-testaceis.

Male and Female. Tawny, convex, minutely pubescent; face short, with a black dot on each side; antennæ pale luteous, reaching the epistoma; 3rd joint linear, conical at the tip, full four times the length of the 2nd; arista slender, bare, much longer than the 3rd joint; thorax with five reddish lines; scutellum and humeral calli yellow; metathorax with a blackish mark on each side; abdomen short, oval, broader than the thorax, concave beneath, from whence in the female the lanceolate apical part proceeds; a protuberance on each side at the base, and a black middle band, behind which there is a slight longitudinal black line; wings vitreous, lurid and partly brown along the costa, brown along the subanal vein, and brown about the tips, excepting most of the space between the discal transverse vein and the border; veins tawny, partly black, slightly deviating; discal transverse vein nearly straight, parted by about one-third of its length from the border, and by more than its length from the oblique and rather long præbrachial transverse; halteres whitish testaceous. *Var.* β. Abdomen with two black bands. *Var.* γ, *Male.* Discal transverse vein not clouded with brown. *Var.* δ, *Male.* Præbrachial transverse vein clouded with brown. *Var.* ϵ, *Male.* Disk of the thorax blackish grey; wings vitreous, excepting a slight brown line along the costa,

and another along the subanal vein. *Var.* ζ, *Male.* Abdomen with a black interrupted subapical band. Length of the body 3–6 lines; of the wings 5–10 lines.

This species is closely allied to *D. ferrugineus* and to *D. trivittatus*, but may be distinguished by the luteous hue along the costa.

185. Dacus diffusus, n. s. *Fœm.* Testaceus, facie nigro fasciata, palpis nigro notatis, thoracis vittis duabus angustis abbreviatis et metathoracis fasciis duabus angustis nigris, abdomine fusiformi, alis subcinereis apud venas fuscescente subnebulosis.

Female. Testaceous, not shining; head paler about the eyes, with a black band on the face near the epistoma; palpi with a black mark on each outer side; antennæ reaching the epistoma; 3rd joint linear, rounded at the tip, more than four times the length of the 2nd; arista bare; thorax with two narrow abbreviated black stripes; metathorax with two slender black bands; abdomen fusiform, narrower and a little longer than the thorax; legs moderately long; wings slightly greyish, irregularly clouded with very pale brown about the veins; the latter black, testaceous towards the base; discal transverse vein straight, upright, parted by about one-fourth of its length from the border, and by much less than its length from the præbrachial transverse, which is undulating and very oblique. Length of the body 4 lines; of the wings 7 lines.

186. Dacus fulvitarsis, n. s. *Fœm.* Niger, longiusculus, capite apud oculos albo, antennis piceis, abdomine lanceolato, femoribus basi fulvis, metatarsis subdilatis, tarsis posterioribus fulvis, alis cinereis nigricante nebulosis, halteribus testaceis.

Female. Black, rather long and narrow; head white about the eyes; face small; antennæ piceous, short; 3rd joint nearly round, a little longer than broad; arista long, bare; thorax elongate; abdomen lanceolate, longer than the thorax; femora tawny at the base; metatarsi slightly dilated; posterior tarsi tawny, with black tips; wings grey, partly clouded with blackish; veins black; discal transverse vein straight, upright, parted by about twice its length from the border, and by about thrice its length from the præbrachial transverse; halteres testaceous. Length of the body $2\frac{1}{2}$ lines; of the wings 4 lines.

Gen. Callantra, n. g.

Fœm. Corpus convexum. *Caput* thorace vix angustius. *Palpi* distincti, porrecti. *Antennæ* longæ, petiolo aut articulo 1° communi, arista nuda. *Thorax* brevis. *Abdomen* petiolatum, postice ovatum et valde convexum, subtus concavum. *Pedes* mediocres. *Alæ* sat angustæ.

Female. Body convex. Head almost as broad as the thorax; face vertical; palpi distinct, porrect; antennæ long, seated on a common petiole or first joint, with which the succeeding part forms a right angle; 3rd joint very slightly increasing in breadth from the base to

the tip, full thrice the length of the 2nd joint, which is rather long; arista bare, slender, a little longer than the 3rd joint. Thorax short. Abdomen petiolated, oval and very convex hindward, concave beneath, very much longer than the thorax. Legs moderately long. Wings rather narrow.

187. CALLANTRA SMIEROIDES, n. s. *Fœm.* Fulva, facie nigro-biguttata, antennis testaceis, thoracis fascia, scutello, callis duobus humeralibus, pectoris lituris duabus, abdominis fasciis duabus lituraque subapicali flavis, alis subcinereis apud costam fuscescentibus, halteribus testaceis.

Female. Tawny; head testaceous about the eyes; face with a black dot on each side; antennæ testaceous, extending beyond the epistoma; thorax with two yellow humeral calli, and with a yellow band which is continued on each side of the pectus, the latter having a yellow mark on each side hindward; scutellum yellow; abdomen with the hind borders of the 1st and 2nd segments yellow; a yellow capitate subapical mark, which is dilated on each side; wings slightly grey, brownish along the costa; veins black, tawny towards the base; a lurid tinge along the subanal vein; discal transverse vein oblique, nearly straight, parted by less than half its length from the border, and by more than its length from the præbrachial transverse; halteres testaceous. Length of the body $4\frac{1}{2}$ lines; of the wings $7\frac{1}{2}$ lines.

Gen. ARAGARA, n. g.

Fœm. Corpus angustum. *Caput* supra planum, thorace latius; facies valde retracta. *Antennæ* brevissimæ; articulus 3^{us} subrotundus; arista nuda. *Thorax* longus, subcompressus. *Abdomen* ovatum, thorace brevius. *Pedes* antici raptorii, coxis longissimis, femoribus incrassatis. *Alæ* sat angustæ.

Allied to *Dacus*.

Female. Body narrow. Head flat above, broader than the thorax; face much retracted. Antennæ very short; 3rd joint nearly round, a little longer than the 2nd; arista bare, slender. Thorax long, slightly compressed. Abdomen oval, shorter but hardly broader than the thorax. Fore legs raptorious; coxæ very long; femora incrassated; tibiæ shorter than the femora to which they are applied. Posterior legs moderately long and stout. Wings rather narrow.

188. ARAGARA CRASSIPES, n. s. *Fœm.* Cinereo-nigra, capite cyaneo, tarsis testaceis, alis cinereis, halteribus albis.

Female. Black, slightly covered with cinereous tomentum; head blue, shining, luteous on each side in front; antennæ black; thorax cinereous on each side; tarsi testaceous, with black tips; wings grey; veins black; præbrachial vein and subanal vein very near each other from the base to the discal transverse vein, which is straight and parted

by four times its length from the border, and by more than four times its length from the præbrachial transverse; halteres white. Length of the body $2\frac{1}{2}$ lines; of the wings 4 lines.

Gen. Enicoptera, *Macq.*

189. Enicoptera pictipennis, n. s. *Mas.* Fulva, longa, nitens, pubescens, capite luteo vitta lata, litura antica arcuata maculisque duabus lateralibus nigris, palpis nigro notatis, antennis basi nigro guttatis apice nigricantibus, abdomine longi-fusiformi nigricante basi fulvo, alis longis luteis apud costam nigris postice cinereis, vittis quatuor deviis fuscis.

Male. Tawny, long, shining, pubescent, testaceous beneath; head pale luteous, with a broad black stripe, which is dilated on each side; a black U-shaped mark about the face, which is black; a large black spot on each side of the peristoma; palpi partly black; antennæ blackish at the tips, and with a black dot on each at the base; 3rd joint linear, rounded at the tip, more than twice the length of the 2nd; arista plumose; pectus with a minute blackish mark on each side in front; abdomen blackish, except towards the base, elongate-fusiform, much longer and narrower than the thorax; legs long, testaceous, minutely pubescent; wings long, luteous, cinereous along the inner part of the hind border; black along the exterior part of the costa, and with four irregular brown stripes which are abbreviated towards the base, the first also interrupted; veins luteous, black in the dark parts; radial vein undulating; cubital vein hardly undulating; præbrachial vein curved and inclined forward towards its tip; discal transverse vein very oblique, slightly curved outwards, parted by less than half its length from the border, and by more than its length from the præbrachial transverse. Length of the body 7 lines; of the wings 16 lines.

190. Enicoptera tortuosa, n. s. *Mas.* Fulva, longa, nitens, pubescens, facie argenteo bistrigata, thoracis vittis duabus fasciaque metathorace pectorisque disco nigris, abdomine lineari vittis duabus ventralibus nigris, alis longis vitreis subdilatatis, vitta costali fulva nigricante nebulosa, apice furcata, vittis duabus obliquis flavo-fuscis.

Male. Tawny, long, shining, minutely pubescent; head depressed above, with a silvery streak on each side of the face; antennæ reaching the epistoma; 3rd joint linear, slightly and obliquely truncated at the tip, full four times the length of the 2nd; arista plumose; thorax with an irregular black stripe along each side, and with a black band adjoining the scutellum; metathorax and disc of the pectus black; abdomen linear, much longer and narrower than the thorax, with a black stripe beneath; legs long, minutely pubescent; wings long, vitreous, somewhat dilated, tawny and partly shaded with blackish along the costa; this costal stripe dilated towards the base, and emitting a fork towards the tip; two oblique brown and yellow stripes,

which part from the hind border, are united on the præbrachial transverse vein, and there join the costal stripe, the exterior one very short; veins black; radial vein excessively contorted towards its tip; cubital vein straight till near its tip, where it is inclined hindward, and is slightly undulating; præbrachial vein very undulating exteriorly; subanal vein straight; discal transverse vein very oblique, nearly straight, parted by full one-fourth of its length from the border, and by full half its length from the præbrachial transverse, which is straight, upright, and unusually long. Length of the body 7 lines; of the wings 16 lines,

Enicoptera flava, Macq. (Dipt. Exot. Suppl. 3, 63), the type of this genus, inhabits Java, and is closely allied to *E. tortuosa*, and may be a local variety of the latter species, but differs from the character and figure. Macquart states that his description was taken from an apparently immature specimen.

191. ENICOPTERA ARCUOSA, n. s. *Mas.* Fulva, longa, nitens, pubescens, capite pallide luteo vitta lata biramosa fasciaque antica nigris, thoracis lineolis duabus maculisque duabus anterioribus pectorisque lituris duabus nigris, abdomine fusiformi, alis longis lutescentibus sat angustis apices versus fuscis postice cinereis, vitta discali albida, fascia exteriore alba antice furcata et arcuata.

Male. Tawny, long, shining, minutely pubescent; head pale luteous, with a broad black stripe which emits an oblique branch on each side to the eye, and with a black band by the epistoma; antennæ nearly reaching the epistoma; 3rd joint linear, rounded at the tip, thrice the length of the 2nd; arista plumose; thorax with two short black lines, each with a black spot in front; pectus with a black mark on each side; abdomen fusiform, longer but hardly narrower than the thorax; legs long, hardly pubescent; wings long, rather narrow, somewhat luteous, brown towards the tips, grey along the hind border, with a short whitish discal stripe which terminates in a white band, the latter abbreviated hindward and forked in front, the exterior fork much curved and terminating behind the tip of the wing; veins tawny, black towards the tips; radial vein slightly undulating opposite the præbrachial transverse vein; the other veins straight; discal transverse vein slightly oblique, slightly curved outward, parted by full one-third of its length from the border, and by nearly twice its length from the præbrachial transverse; halteres testaceous. Length of the body 6 lines; of the wings 14 lines.

192. ENICOPTERA? PLAGIFERA, n. s. *Fœm.* Testacea, longiuscula, frontis puncto nigro, facie nigricante-cinerea, palpis nigro guttatis, antennis luteis, thoracis lineis tribus strigisque duabus exterioribus, metathorace pectorisque lituris nigris, abdomine fusiformi fasciis duabus basalibus nigris; alis vitreis longiusculis, strigis duabus basalibus fasciis duabus plagaque subapicali fuscis.

Female. Testaceous, rather long, not shining, with a few black bristles;

head a little narrower than the thorax, with a black point on the front; face blackish grey; palpi with a black dot on each outer side; antennæ pale luteous, not reaching the epistoma; 3rd joint linear, rounded at the tip, about four times the length of the 2nd; arista bare; thorax with three black lines and with two short and more exterior black streaks; metathorax black, shining; pectus with some black marks on each side; abdomen fusiform, hardly longer than the thorax, with two black bands near the base; legs moderately long; wings vitreous, rather long, with two narrow brown bands, the interior band emitting two brown streaks to the base of the wing, the exterior band curved, continued along the costa to the tip of the radial vein, the space beyond it mostly occupied by an elliptical brown patch; veins black, straight; discal transverse vein straight, upright, parted by more than half its length from the border, and by nearly twice its length from the oblique præbrachial transverse. Length of the body $4\frac{1}{2}$ lines; of the wings 9 lines.

Gen. Ortalis, *Fallen*.

The two following species belong to a new group of *Ortalis*, and will probably form a distinct genus.

193. Ortalis decatomoides, n. s. *Mas.* Obscure rufa, thorace brevi, abdomine nigro, fusiformi, basi rufo, pedibus fulvis, femoribus posterioribus basi albidis, tibiis posticis nigris, alis subcinereis, macula apicali fasciisque duabus nigricantibus.

Male. Dull red; head rather large, a little broader than the thorax, blackish on each side of the face; antennæ wanting; thorax short; abdomen black, shining, fusiform, red at the base, a little narrower but hardly longer than the thorax; legs tawny; posterior femora whitish at the base; hind tibiæ black; wings slightly greyish, rather convex along the hind border, blackish at the tips, and with two blackish bands; first band rather oblique; veins black; præbrachial vein and cubital vein slightly curved and approximating towards the tip of the wing; discal transverse vein straight, upright, short, parted by much more than its length from the border, and by full twice its length from the præbrachial transverse, which is extremely short; Length of the body $1\frac{1}{4}$ line; of the wings $2\frac{1}{2}$ lines.

194. Ortalis vacillans, n. s. *Fœm.* Fulva, arista pubescente, abdomine nigro postice lanceolato, alis limpidis, costa striga basali fasciisque tribus nigricantibus.

Closely allied to *D. decatomoides*. *Female.* Tawny, shining; head full as broad as the thorax; epistoma slightly prominent; antennæ nearly reaching the epistoma; 3rd joint linear, conical towards the tip, about four times the length of the 2nd; arista pubescent; abdomen black, a little longer than the thorax, lanceolate hindward; wings limpid, blackish along the costa, with a blackish streak, and with three slen-

der blackish bands; 1st band short, oblique, abbreviated hindward by the end of the basal streak; 2nd curved, slightly abbreviated hindward; 3rd nearly straight, entire; discal transverse vein upright, nearly straight, parted by less than half its length from the border, and by much more than its length from the præbrachial transverse. Length of the body 2 lines; of the wings 4 lines.

Gen. TRYPETA, *Meigen*.

195. TRYPETA BASIFASCIA. *Fœm.* Ferruginea, longiuscula, capite antennisque luteis, arista plumosa, metathorace nigro, pectoris disco nigricante, abdomine nigro basi fulvo, pedibus halteribusque fulvis, femoribus posterioribus nigricantibus, alis nigris albo notatis basi vitreis.

Female. Ferruginous, shining, rather long; head luteous, white about the eyes, narrower than the thorax; face rather long; sides of the peristoma slightly dilated; antennæ luteous, very short, not extending to half the length of the face; 3rd joint conical, much longer than the 2nd; arista plumose; metathorax black; disk of the pectus blackish; abdomen black, fusiform, tawny towards the base, a little longer than the thorax; legs and halteres tawny; posterior femora blackish; wings black, mostly vitreous towards the base, with two white spots on the costa, with two on the hind border, and with four or five transverse white dots on the disk; veins black, tawny at the base; discal transverse vein straight, upright, parted by much less than its length from the border, and by much more than its length from the præbrachial transverse. Length of the body 4 lines; of the wings 7 lines.

196. TRYPETA NIGRIFASCIA, n. s. *Mas.* Fulva, capite antennisque pallide luteis, arista plumosa, thoracis lineis duabus et fascia metathoraceque nigris, abdomine elliptico, alis vitreis latiusculis, vitta costali fulva vittaque postica fusca.

Male. Tawny, shining; head pale luteous, whitish on the face and about the eyes; antennæ pale luteous, not near reaching the epistoma; 3rd joint elongate-conical, about twice the length of the 2nd; arista plumose; thorax with an irregular black line on each side, and with a black band in front of the scutellum; metathorax black; abdomen elliptical, much shorter and a little narrower than the thorax; wings vitreous, rather broad, with a broad tawny stripe, which occupies the whole base and extends beyond the tip along the costa, where it contains some grey marks; a brown stripe near the hind border, abruptly angular exteriorly; veins tawny; discal transverse nearly straight and upright, parted by less than half its length from the border, and by more than its length from the præbrachial transverse. Length of the body 3 lines; of the wings 6 lines.

197. TRYPETA LATIVENTRIS, n. s. *Mas.* Fusca, lata, depressa, capite, antennis, scutello abdomineque rufescentibus, arista subpubes-

cente, abdomine vitta interrupta nigra, pedibus testaceis, femoribus nigricantibus postice cinereis, lituris costalibus et marginalibus vitreis.

Male. Brown, rather broad and flat; head reddish, a little narrower than the thorax, testaceous on the face and about the eyes; face quite flat; antennæ reddish, not near reaching the epistoma; 3rd joint linear, rounded at the tip, more than twice the length of the 2nd; arista minutely pubescent; thorax with black bristles on each side; scutellum and abdomen dark reddish, the latter broader and not longer than the thorax, with a black stripe which is interrupted on the hind border of each segment; legs testaceous; femora blackish, testaceous towards the tips; wings blackish, rather broad, cinereous along the basal part of the hind border, with two small vitreous marks towards the tip of the costa, and with three vitreous marks hindward, the middle one much larger than the other two; veins black; discal transverse vein nearly straight and upright, parted by a little less than half its length from the border, and by a little less than its length from the præbrachial transverse; alulæ and halteres testaceous. Length of the body $3\frac{1}{2}$ lines; of the wings 5 lines.

198. Trypeta stellipennis, n. s. *Mas et Fœm.* Ferruginea, capite antennisque pallide luteis, arista plumosa, metathorace nigricante, abdomine fusiformi, pedibus halteribusque testaceis, alis nigricantibus latiusculis, guttis marginalibus punctisque discalibus albis.

Male and Female. Ferruginous, paler beneath; head pale luteous, not so broad as the thorax; epistoma not prominent; antennæ pale luteous, not near reaching the epistoma; 3rd joint linear, rounded at the tip, full twice the length of the 2nd; arista plumose; metathorax blackish; abdomen fusiform, narrower and a little longer than the thorax; oviduct of the female cylindric-lanceolate; legs and halteres testaceous; wings blackish, rather broad, white at the tips, with white marginal dots and with white discal points; veins black; discal transverse vein upright, nearly straight, parted by a little more than one-fourth of its length from the border, and by about its length from the præbrachial transverse, which is rather long. Length of the body $2\frac{1}{2}$–$3\frac{1}{2}$ lines; of the wings 5–6 lines.

199. Trypeta amplipennis, n. s. *Fœm.* Cinerea, capite antennis pedibus halteribusque fulvis, arista nuda, abdomine nigro fusiformi basi fulvo apicem versus lanceolato, alis nigris latissimis albo guttatis.

Female. Cinereous, dull; head tawny, whitish about the eyes; face flat; antennæ tawny, very short, not extending beyond half the length of the face; 3rd joint conical, a little longer than the 2nd; arista bare; abdomen fusiform, black, shining, tawny towards the base, lanceolate towards the tip, a little narrower and much longer than the thorax; legs and halteres tawny; wings black, very broad, with a white apical spot, with some white marginal and discal dots, and with two larger white transverse costal marks; veins black, tawny at the

base; discal transverse vein straight, upright, parted by about half its length from the border, and by a little less than its length from the præbrachial transverse. Length of the body 3 lines; of the wings 6 lines.

200. TRYPETA APPROXIMANS, n. s. *Fœm.* Nigra, nitens, capite rufescente, facie cinerea, abdomine elliptico apicem versus lanceolato, pedibus fulvis, femoribus nigris, alis nigricantibus albo maculatis.

Female. Black, shining; head reddish; face cinereous; abdomen elliptical, lanceolate towards the tip, much longer than the thorax; legs tawny; femora black; wings blackish, with two white triangular spots on the costa, with three white dots on the disk, with three white streaks on the hind border, and with two white subapical streaks; veins black; discal transverse vein nearly straight and upright, parted by much less than its length from the border, and by a little less than its length from the præbrachial transverse. Length of the body $1\frac{1}{4}$ line; of the wings $2\frac{1}{2}$ lines.

Gen. SOPHIRA, *Walk.*

201. SOPHIRA BISTRIGA, n. s. *Fœm.* Fulva, capite luteo, arista plumosa, thorace pectoreque nigro maculatis, metathorace vittis duabus nigris, abdomine fusiformi maculis lateralibus nigris, oviductu lanceolato, alis nigricantibus albo bifasciatis basi fulvis.

Female. Tawny, shining; head luteous, hardly as broad as the thorax, white about the eyes; antennæ tawny, not near reaching the epistoma; 3rd joint elongate-conical, more than twice the length of the 2nd; arista plumose; thorax with four large black spots; metathorax with two black stripes; pectus with two elongated black spots on each side; abdomen fusiform, with a long lanceolate flat oviduct, much longer than the thorax; each segment with two large lateral black spots; wings blackish, tawny towards the base, with two white bands, the exterior band curved outward in front, and not extending to the costa; veins black, tawny towards the base; discal transverse vein curved outward, parted by full one-fourth of its length from the border, and by very much more than its length from the præbrachial transverse. Length of the body $4\frac{1}{2}$ lines; of the wings 8 lines.

Gen. PALLOPTERA, *Fallen.*

202. PALLOPTERA DETRACTA, n. s. *Mas.* Testacea, capite apud oculos cinereo, arista subpubescente, abdomine guttis duabus lateralibus subapicalibus nigris, alis cinereis.

Male. Testaceous; head pale cinereous behind and about the eyes; antennæ short, tawny; arista very minutely pubescent; abdomen oval, not longer than the thorax, with a black dot on each side of the subapical segment; wings grey; veins black, testaceous at the base;

discal transverse vein straight, upright, parted by hardly half its length from the præbrachial transverse. Length of the body 2½ lines; of the wings 5 lines.

Subfam. Diopsides, *Walk.*

Gen. Diopsis, *Linn.*

203. Diopsis subnotata, *Westw. Orient. Ent.* pl. 18. f. 2.
Inhabits also the Philippine Islands.

204. Diopsis detrahens, n. s. *Fœm.* Nigra, capite ex parte ferrugineo, oculorum petiolis breviusculis, abdomine subtus lurido, coxis femoribusque fulvis, his apice nigris, alis nigricantibus macula subcostali alba.

Female. Black; head partly ferruginous; petioles of the eyes each equal in length to the space between them; abdomen lurid beneath; coxæ and femora tawny, the latter with black tips; wings blackish, with a white subcostal spot towards the tip; veins black; halteres piceous. Length of the body 2½ lines; of the wings 4 lines.

Subfam. Sepsides, *Walk.*

Gen. Calobata, *Fabr.*

205. Calobata resoluta, n. s. *Mas.* Nigra, abdomine lineari longo, segmentis albido marginatis, pedibus longissimis, femoribus posterioribus testaceo trifasciatis, femoribus anticis basi coxisque anticis testaceis, tarsis anticis albis, alis cinereis apices versus obscurioribus fascia subapicali albida.

Male. Black, slightly shining; pectus with an oblique cinereous band on each side; abdomen linear, pale beneath, much narrower than the thorax, and nearly twice its length, hind borders of the segments whitish; legs black, very long; posterior femora with three testaceous bands; fore femora at the base, and fore coxæ, testaceous; fore tarsi white; wings dark grey, blackish grey on each side of a whitish subapical band; veins black: discal transverse vein straight, upright, parted by about half its length from the border, and by more than four times its length from the præbrachial transverse; halteres piceous. Length of the body 6 lines; of the wings 10 lines.

206. Calobata impingens, n. s. *Mas et Fœm.* Obscure cyanea, antennis rufis, abdomine subtus ferrugineo segmentis albo marginatis, pedibus fulvis, femoribus tibiisque anticis nigris, illis basi fulvis, femoribus posterioribus nigro trifasciatis, tibiis tarsisque posterioribus obscure fulvis, tarsis anticis albis basi nigris, alis cinereis fusco bifasciatis.

Male and Female. Dark blue; head white about the eyes; antennæ red; abdomen lanceolate, ferruginous beneath, narrower and very

much longer than the thorax, hind borders of the segments white; legs tawny, very long; posterior coxæ and fore tibiæ black; posterior femora with three black bands; fore femora black, tawny towards the base; posterior tibiæ and posterior tarsi dark tawny; fore tarsi white, black at the base; wings grey, with two brown bands, the second apical; veins black; cubital vein and præbrachial vein converging to the tip of the wing; discal transverse vein straight, upright, parted by much less than its length from the border, and by more than thrice its length from the præbrachial transverse. *Var.* β: Bands of the wings broader and more complete. Length of the body 4–5 lines; of the wings 7–8 lines.

This species is erroneously recorded as *C. indica* in Vol. III. p. 124.

207. Calobata bifasciata, n. s. *Fœm.* Nigra, longissima, gracillima, capite litura transversa albida, arista breviuscula basi robusta, abdominis dimidio antico subclavato fasciis duabus cinereis, dimidio postico lanceolato, femoribus posticis basi albidis apice rufescentibus, tarsis anticis albis apice nigris, alis cinereis nigricante bifasciatis.

Female. Black, very long and slender; head with a whitish transverse mark in front of the face, which is very short; 3rd joint of the antennæ elongate-conical, more than twice the length of the 2nd; arista rather short, stout towards the base; thorax attenuated in front; abdomen more than twice the length of the thorax, broadest in the middle, subclavate to half its length, lanceolate from thence to the tip, two cinereous bands on the basal half; legs long; hind femora whitish at the base, reddish at the tips; fore tarsi white, with black tips; wings grey, slightly blackish at the tips, and with two blackish bands, the second broader and more complete than the first; veins black; cubital vein and præbrachial vein slightly converging towards the tip of the wing; discal transverse vein straight, oblique, parted by less than its length from the border, and by more than thrice its length from the præbrachial transverse. Length of the body 5 lines; of the wings 8 lines.

Gen. Cardiacephala, *Macq.*

208. Cardiacephala varipes, n. s. *Mas.* Testacea, gracillima, capite subelongato, antennis pallide rufis basi nigris, thorace antico attenuato, abdomine lineari apicem versus tumido, femoribus intermediis subincrassatis, tibiis intermediis nigris, tarsis intermediis albis apice nigris, alis pallide fuscescentibus, basi fasciaque cinerascentibus.

Male. Testaceous, very slender; head somewhat elongated; antennæ pale red, black at the base; thorax long, attenuated in front; abdomen linear, tumid towards the tip, narrower and much longer than the thorax; legs very long; fore legs much shorter and more slender than the others; middle femora slightly incrassated, except towards the tips; middle tibiæ black; middle tarsi white, with black tips; wings

pale brownish, greyish towards the base and with a greyish band beyond the discal transverse vein; veins black, testaceous towards the base; cubital vein and præbrachial vein slightly converging towards the tip of the wing; discal transverse vein straight, upright, parted by less than its length from the border, and by about thrice its length from the præbrachial transverse. Length of the body 3½ lines; of the wings 6 lines.

Gen. Sepsis, *Fallen.*

209. Sepsis testacea, n. s. *Mas et Fœm.* Testacea aut fulva, antennis pallide rufis, abdomine subpubescente, alis cinerascentibus, costa basali nigra. *Var.* β. Abdomine piceo basi fulvo.

Male and Female. Testaceous or tawny, slightly setose; antennæ pale red, 3rd joint conical, about twice the length of the 2nd; abdomen slightly pubescent; wings greyish, black along the costa towards the base; veins black; discal transverse vein straight, upright, parted by a little more than its length from the border, and by more than its length from the præbrachial transverse. *Var.* β: Abdomen piceous, tawny towards the base. Length of the body 2–3 lines; of the wings 3–4 lines.

210. Sepsis frontalis, n. s. *Mas.* Nigra, capite antico, antennis, pedibus anticis femoribusque posterioribus basi testaceis, alis vitreis. *Fœm.* Fulva, abdomine nigro.

Male. Black, shining; head in front and antennæ testaceous; fore legs testaceous; posterior femora testaceous towards the base; wings vitreous; veins black; discal transverse vein straight, oblique, parted by twice its length from the border, and from the præbrachial transverse. *Female.* Tawny; abdomen black. Length of the body 1 line; of the wings 2 lines.

211. Sepsis fascipes, n. s. *Fœm.* Nigra, subnitens, antennis pallide rufis, abdomine fusiformi postice attenuato, pedibus albis, tibiis intermediis femoribusque nigris, tibiis posticis basi apiceque nigris, alis cinereis macula apicali nigra.

Female. Black, slightly shining; antennæ pale red, very short, 3rd joint conical; abdomen fusiform, lanceolate and much attenuated towards the tip, much longer than the thorax; legs white; femora and middle tibiæ black; hind tibiæ black at the base and at the tips; wings grey, with a black spot at the tip of the costa; veins black; discal transverse vein straight, upright, parted by its length from the border, and by full twice its length from the præbrachial transverse. Length of the body ¾ line; of the wings 3 lines.

212. Sepsis revocans, n. s. *Fœm.* Cupreo-nigra, antennis nigris, pedibus halteribusque testaceis, alis subcinerascentibus basi nigricantibus.

Female. Cupreous-black, shining; antennæ black, very short; legs

testaceous; wings slightly greyish, blackish at the base of the costa; veins black; discal transverse vein straight, upright, parted by more than twice its length from the border, and by less than twice its length from the præbrachial transverse; halteres testaceous. Length of the body $1\frac{1}{2}$ line; of the wings 2 lines.

Subfam. Psilides, *Walk.*

Gen. Micropeza, *Macq.*

213. Micropeza fragilis, *Walk.* See Vol. I. p. 37.

Gen. Cœnurgia, n. g.

Mas. Corpus gracile. *Caput* elongatnm, antice conicum. *Antennæ* porrectæ; articulus 3^{us} lanceolatus; arista apicalis, sat robusta. *Thorax* linearis. *Abdomen* fusiforme, thorace vix angustius, non longius. *Pedes* longi; femora lata, compressa; tarsi antici articulo 1^{o} dilatato fusiformi. *Alæ* breviusculæ, sat angustæ.

Allied to *Nerius*. *Male*. Body slender. Head elongate, conical in front, as broad as the thorax. Antennæ porrect; 1st and 2nd joints short; 3rd lanceolate; arista rather stout, apical, larger than all the preceding joints. Thorax linear. Abdomen fusiform, hardly narrower and not longer than the thorax. Legs long, femora broad, compressed; fore tarsi with the first joint dilated, fusiform. Wings rather short and narrow.

214. Cœnurgia remipes, n. s. *Mas.* Fulva, capite guttis tribus nigris, antennis basi nigris, arista alba, thorace maculis duabus nigris, pedibus nigris, coxis femoribusque luteis apice nigris, alis flavo-cinereis, halteribus apice nigris.

Male. Tawny; head with a black spot on the vertex, and with two black dots on each side, one in front, the other behind; antennæ black towards the base; arista white; thorax with a black spot on each side in front; legs black; coxæ and femora luteous, with black tips; wings grey, tinged with yellow; veins black; cubital vein and præbrachial vein converging towards the tip of the wing; discal transverse vein straight, oblique, parted by less than its length from the border, and by more than twice its length from the præbrachial transverse; halteres with black knobs. Length of the body $3\frac{1}{2}$ lines; of the wings $5\frac{1}{2}$ lines.

Gen. Nerius, *Wied.*

215. Nerius fuscipennis, *Macq.* See Vol. I. p. 38.

Gen. Seraca, n. g.

Fœm. Corpus longiusculum. *Caput* transversum, thorace vix angustius. Antennæ breves, articulo 3^{o} conico, arista plumosa. *Thorax* ellip-

ticus. *Abdomen* ellipticum. *Pedes* mediocres. *Alæ* longiusculæ, latiusculæ.

Female. Body rather long. Head transverse, nearly as broad as the thorax; epistoma not prominent. Antennæ short, not near reaching the epistoma; 3rd joint conical, much longer than the 2nd; arista plumose. Thorax and abdomen elliptical, about equal in length. Legs moderately long and slender. Wings rather long and broad.

216. SERACA SIGNIFERA, n. s. *Fœm.* Fulva, thorace vittis quatuor metathorace vittis duabus abdomine maculis lateralibus nigris, alis obscure fuscis albo quinquesignatis apud costam nigricantibus basi flavis.

Female. Tawny, shining; head testaceous about the eyes; thorax with four black stripes, the outer pair incomplete; metathorax with two black stripes; abdomen with a row of black spots along each side; wings dark brown, blackish along the costa, yellow at the base, with five lanceolate white marks, two of these resting on the costa, the third between them near the hind border, the fourth exterior, discal, slender, oblique, the fifth on the hind border near the tip; veins black, tawny at the base; discal transverse vein curved outward, parted by about one-fourth of its length from the border, and by much more than its length from the præbrachial transverse. Length of the body 4 lines; of the wings 8 lines.

217. SERACA SIGNATA, n. s. *Fœm.* Testacea, longiuscula, epistomate guttis duabus nigris, arista plumosa, abdomine postice attenuato maculis duabus lateralibus subapicalibus, alis cinerascentibus, costa exteriore nigricante.

Female. Testaceous, shining, rather long; head nearly as broad as the thorax, with a black dot on each side of the epistoma; antennæ short, 3rd joint elongate-conical, arista plumose; thorax elliptical; abdomen attenuated hindward, longer than the thorax, with a black spot on each side of the 5th segment; wings greyish, blackish along the apical half of the costa; veins testaceous, black towards the tips; discal transverse vein nearly straight and upright, parted by about one-fourth of its length from the border, and by hardly more than its length from the præbrachial transverse. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

Gen. PSILA, *Meigen.*

218. PSILA BIPUNCTIFERA, n. s. *Fœm.* Testacea, facie nigro bipunctata, antennarum articulo 3° longiconico, arista pubescente, abdomine guttis duabus apicalibus nigris, alis pallide cinereis flavo suffusis.

Female. Testaceous; head somewhat pilose beneath, with a black point on each side of the face; 3rd joint of the antennæ elongate-conical, about twice the length of the 2nd; arista pubescent; thorax elongate, somewhat flat above; abdomen fusiform, a little longer than the thorax;

5th segment with a black dot on each side; wings pale cinereous, tinged with yellow; veins yellow; discal transverse vein straight, oblique, parted by hardly more than one-fourth of its length from the border, and by more than its length from the præbrachial transverse. Length of the body 5 lines; of the wings 10 lines.

219. Psila munda, n. s. *Mas et Fœm.* Nigra, nitens, facie testacea nigro notata, antennis testaceis basi nigris, arista plumosa, thorace subcinerascente, scutello obscure testaceo, pedibus testaceis, alis cinereis apud costam nigricantibus, halteribus albidis.

Male and Female. Black, shining; head testaceous, blackish above; disk of the face black, shining: antennæ short, testaceous, black at the base; 3rd joint linear, rounded at the tip, about twice the length of the 2nd; arista plumose: thorax linear, with slight cinereous tomentum; scutellum dull testaceous; abdomen fusiform, a little longer than the thorax; legs testaceous; wings grey, blackish along the costa towards the tips; veins black; discal transverse vein straight, upright, parted by about half its length from the border, and by nearly thrice its length from the præbrachial transverse; halteres whitish. Length of the body $2\frac{1}{2}$–3 lines; of the wings 4–5 lines.

Gen. Texara, *Walk.*

220. Texara dioctrioides, n. s. *Mas et Fœm.* Nigra, longa, gracilis, capite nigro-cyaneo, thorace vittis quatuor cinereis, segmentorum abdominalium lateribus albo marginatis, pedibus fulvo fasciatis, alis cinereis, halteribus testaceis.

Male and Female. Black, long, slender; head bluish-black, white about the eyes in front; antennæ of the male piceous, of the female tawny, 3rd joint round, arista minutely pubescent; thorax with four cinereous stripes; abdomen about twice the length of the thorax, cylindrical towards the base, subclavate in the male and elongate-fusiform in the female hindward: hind borders of the segments white on each side; fore femora, hind tibiæ and hind tarsi tawny at the base; middle legs and hind femora tawny, the latter with a broad black band; fore tibiæ white, black at the base; wings grey; veins black; discal transverse vein straight, upright, parted by less than its length from the border, and by almost four times its length from the præbrachial transverse; halteres testaceous. Length of the body 4–$4\frac{1}{2}$ lines; of the wings 6–7 lines.

Gen. Gobrya, n. g.

Mas. *Corpus* gracillimum. *Caput* thorace multo latius; frons sat angusta; facies plana. *Oculi* magni. *Antennæ* brevissimæ; articulus 3^{us} conicus; arista pubescens. *Thorax* sat parvus. *Abdomen* cylindricum, gracillimum, apice clavatum, thorace duplo longius. *Pedes* graciles; anteriores breves; postici longiusculi. *Alæ* perangustæ.

Male. Body very slender. Head much broader than the thorax; front rather narrow; face vertical, flat; eyes large, prominent. Antennæ very short; 3rd joint conical, longer than the 2nd; arista pubescent. Thorax rather small. Abdomen clavate, about twice the length of the thorax, cylindrical and very slender till near its tip. Legs slender; anterior legs short; hind legs rather long. Wings very narrow; discal transverse vein straight, upright, parted by more than its length from the border, and by more than four times its length from the præbrachial transverse.

221. GOBRYA BACCHOIDES, n. s. *Mas.* Cyanea, nitens, antennis pedibusque pallide flavis, abdomine nigro fasciis duabus flavis, femoribus posterioribus tibiisque posticis nigris, tarsis posticis basi nigris, alis vix cinerascentibus, halteribus flavis apice nigris.

Male. Blue, shining; proboscis, antennæ, and legs pale yellow; abdomen black, with two pale yellow bands, the hind one very slender; posterior femora and hind tibiæ black, the former pale yellow at both ends; middle tibiæ and tarsi wanting; hind tarsi black towards the base; wings hardly greyish, apical third part brown; veins black; halteres pale yellow, with black knobs. Length of the body $2\frac{3}{4}$ lines; of the wings 4 lines.

Subfam. OSCINIDES, *Haliday.*

Gen. OSCINIS, *Fabr.*

222. OSCINIS FEMORATA, n. s. *Mas.* Atra, nitens, capite nigro-cyaneo, femoribus anterioribus basi, tibiis anterioribus apice, tarsis halteribusque flavis, femoribus posticis incrassatis, alis cinerascentibus.

Male. Deep black, shining; head bluish-black; abdomen conical, shorter than the thorax; legs black; anterior femora at the base, anterior tibiæ at the tips, and tarsi yellow; hind femora incrassated; wings greyish; veins black; discal transverse vein straight, upright, parted by more than its length from the border, and by much more than its length from the præbrachial transverse; halteres yellow. Length of the body $1\frac{1}{4}$ line; of the wings 2 lines.

Gen. PIOPHILA, *Fallen.*

223. PIOPHILA CONTECTA, n. s. *Fœm.* Nigra, nitens, oviductu lanceolato, pedibus halteribusque fulvis, pedibus anticis nigris, femoribus basi fulvis, alis cinereis.

Female. Black, shining; oviduct prominent, lanceolate; legs and halteres tawny; fore legs black; coxæ, femora at the base and knees tawny; wings grey; veins black; discal transverse vein straight, upright, parted by less than its length from the border, and by more than its length from the præbrachial transverse. Length of the body 2 lines; of the wings 4 lines.

Gen. Opomyza, *Fallen*.

224. Opomyza nigrifinis, n. s. *Fœm.* Cinerea, capite antennisque pallide rufis, arista plumosa, thorace bilineato, pectore halteribusque albis, abdomine fulvo lanceolato apicem versus nigro, pedibus fulvis, alis nigris albo guttatis.

Female. Cinereous; head pale red, white beneath; antennæ pale red, very short, 3rd joint nearly round, arista plumose; thorax with two indistinct darker lines; pectus and halteres white; abdomen lanceolate, tawny, shining, black towards the tip; legs tawny; wings black, rather narrow, with about ten white dots, of which two are larger than the others, and form a broken and almost interrupted band near the base; veins black; discal transverse vein straight, upright, parted by about half its length from the border; no præbrachial transverse vein. Length of the body $1\frac{1}{4}$–$1\frac{1}{2}$ lines; of the wings $2\frac{1}{2}$–3 lines.

Gen. Drosophila, *Fallen*.

225. Drosophila solennis, n. s. *Mas.* Testacea, facie carinata, thorace vittis quatuor fulvis, abdomine fasciis abbreviatis nigricantibus, alis cinereis.

Male. Testaceous; face keeled; antennæ wanting; thorax with four tawny stripes; abdomen elliptical, a little longer than the thorax, with blackish abbreviated bands; wings grey; veins black; discal transverse vein straight, upright, parted by hardly less than its length from the border, and by about thrice its length from the præbrachial transverse. Length of the body $1\frac{1}{2}$ line; of the wings 3 lines.

226. Drosophila rudis, n. s. *Mas.* Fulva, facie albida, abdomine nigro nitente basi fulvo, pedibus halteribusque testaceis, alis cinereis apud costam obscurioribus maculis quatuor nigricantibus.

Male. Tawny, testaceous beneath; face whitish; antennæ wanting; abdomen elongate-oval, black, shining, tawny at the base, not longer than the thorax; legs and halteres testaceous; wings grey, darker along the costa, with four blackish spots, first spot subcostal, larger than the second which is discal, third apical, band between the second and third spots irregular, attenuated hindward; veins black; discal transverse vein straight, upright, parted by nearly its length from the border, and by nearly twice its length from the præbrachial transverse. Length of the body 2 lines; of the wings $3\frac{1}{2}$ lines.

227. Drosophila illata, n. s. *Fœm.* Fulva, segmentorum abdominalium marginibus pedibusqne testaceis, alis cinereis.

Female. Tawny; antennæ very short, 3rd joint conical, arista thinly plumose; abdomen oval, not longer than the thorax, hind borders of the segments and legs testaceous; wings grey; veins black, tawny at the base; discal transverse vein straight, upright, parted by about its length from the border, and by nearly four times its length from the præbrachial transverse. Length of the body $1\frac{1}{4}$ line; of the wings $2\frac{1}{2}$ lines.

228. Drosophila lurida, n. s. *Mas.* Atra, capite piceo, arista plumosa, abdomine lurido subpubescente, pedibus obscure fulvis, alis lurido-cinereis, punctis marginalibus nigris, vena transversa præbrachiali nigro nebulosa.

Male. Deep black; head piceous; antennæ short, 3rd joint elongate-conical, arista thinly plumose; pectus piceous; abdomen oval, lurid red, minutely pubescent, not longer than the thorax; legs dull tawny; wings lurid grey, blackish at the base, with black points at the tips of the longitudinal veins; veins yellowish; discal transverse vein straight, upright, with a black point at each end, parted by less than its length from the border, and by about twice its length from the præbrachial transverse, which is clouded with black. Length of the body 2 lines; of the wings 4 lines.

229. Drosophila lateralis, n. s. *Mas.* Fulva, subtus testacea, abdomine maculis lateralibus nigris, pedibus halteribusque testaceis, alis cinereis.

Male. Tawny, testaceous beneath; antennæ short, 3rd joint conical, arista plumose; abdomen not longer than the thorax, with black spots along each side; legs and halteres testaceous; wings grey; veins black. Length of the body 1½ line; of the wings 3 lines.

Gen. Discomyza, *Meigen.*

230. Discomyza obscurata, n. s. *Fœm.* Cinereo-nigra, capite abdomineque nigris nitentibus, antennis obscure rufis, arista plumosa, pectoris lateribus albido conspersis, alis cinereis fascia informi maculaque apicali nigricantibus, halteribus albis.

Female. Cinereous black; head black, shining; antennæ short, dark red, 3rd joint conical, longer than the 2nd, arista thinly plumose; sides of the pectus with minute whitish speckles; abdomen elliptical, flat, black, shining, longer than the thorax; legs black; wings grey, with an irregular blackish band which does not extend to the hind border, and with a blackish apical spot; veins black; discal transverse vein straight, oblique, parted by much less than its length from the border, and by very much more than its length from the præbrachial transverse, which is clouded with black; halteres white. Length of the body 2 lines; of the wings 3 lines.

Gen. Nomba, n. g.

Mas et Fœm. *Corpus* latum, crassum. *Frons* lata. *Antennæ* brevissimæ; articulus 3^{us} subrotundus; arista subpubescens. *Thorax* subpubescens, quasi coriaceus; scutellum parvum; metathorax maximus, abdomen alasque incumbentes obtegens. *Pedes* breves, robusti; femora subincrassata; tibiæ arcuatæ. *Alæ* parvæ.

Male and Female. Body broad, thick, compact. Head almost as broad as the thorax; front broad, narrower than the epistoma; face vertical.

Antennæ very short; third joint nearly round; arista very minutely pubescent. Thorax solid, apparently horny, very minutely pubescent; scutellum small; metathorax elliptical, enormously developed, covering the whole abdomen, sheltering the wings when in repose. Legs short, stout; femora slightly incrassated; tibiæ curved. Wings concealed beneath the metathorax.

231. NOMBA TECTA, n. s. *Mas et Fœm.* Nigra, obscura, antennis piceis, tarsis flavis apice nigris, alis cinereis.

Male and Female. Black, dull; antennæ piceous; tarsi yellow, with black tips; wings grey; veins black. Length of the body $1\frac{1}{2}$–$1\frac{3}{4}$ line; of the wings $2\frac{1}{2}$–3 lines.

Subfam. HYDROMYZIDES, *Haliday.*

Gen. NOTIPHILA, *Fallen.*

232. NOTIPHILA LINEOSA, n. s. *Mas et Fœm.* Fusca, obscura, capite apud oculos linea frontali et epistomate albidis, arista plumosa, thorace lineis sex albidis, abdomine nigro segmentorum marginibus fulvis, pedibus nigris, tibiis anticis genubus tarsis halteribusque fulvis, alis cinereis.

Male and Female. Brown, dull; head whitish about the eyes, and with a whitish line on the front; epistoma whitish; antennæ not near reaching the epistoma, 3rd joint elongate, arista thinly plumose; thorax with six whitish lines, the lateral pair incomplete; abdomen black, not longer than the thorax, hind borders of the segments tawny; legs black, tarsi, knees, posterior tibiæ at the tips, and fore tibiæ tawny; wings grey; veins black; discal transverse vein straight, upright, parted by more than its length from the border, and by full thrice its length from the præbrachial transverse; halteres tawny. Length of the body $1\frac{3}{4}$–2 lines; of the wings $3\frac{1}{2}$–4 lines.

The two following species belong to the group of which *N. Cinerea* is the type.

233. NOTIPHILA QUADRIFASCIA, n. s. *Fœm.* Fusca, subtus cinerea, capite antico amplo, facie convexa, antennis nigris, arista plumosa, metathorace abdominisque maculis duabus basalibus fasciisque quatuor albidis, genubus tarsisque rufescentibus, alis cinereis puncto costali nigro, halteribus testaceis.

Female. Brown, cinereous beneath; head large and somewhat tumid in front and beneath; face cinereous, convex; antennæ black, very small, 3rd joint conical, arista plumose; metathorax whitish; abdomen with a whitish spot on each side at the base, and with four whitish bands, of which the 3rd and 4th are interrupted; legs cinereous black, knees and tarsi reddish; wings grey, with a black costal point at the tip of the subcostal vein; veins black; discal transverse vein oblique, nearly straight, parted by less than half its length from the

border, and by nearly thrice its length from the præbrachial transverse; halteres testaceous. Length of the body $2\frac{1}{2}$ lines; of the wings 4 lines.

234. NOTIPHILA FLAVILINEA, n. s. *Mas et Fœm.* Piceo-nigra, capite apud oculos testaceo, antennis rufescentibus, arista plumosa, abdominis segmentis flavo marginatis, alis cinereis apud costam subluridis, halteribus testaceis.

Male and Female. Piceous brown; head rather paler, testaceous about the eyes; antennæ reddish, very short, 3rd joint conical, arista plumose; abdomen oval, not longer than the thorax; hind borders of the segments yellow; wings grey, with a slight lurid tinge along the costa; veins black; discal transverse vein straight, upright, parted by less than its length from the border, and by a little more than twice its length from the præbrachial transverse; halteres testaceous. Length of the body $2\frac{1}{2}$ lines; of the wings 4 lines.

Gen. EPHYDRA. *Fallen.*

235. EPHYDRA BORBOROIDES, n. s. *Fœm.* Nigra, lata, crassa, pubescens, subsetosa, antennis piceis, arista pubescente, tibiis tarsisque flavo fasciatis, alis nigricantibus latiusculis cinerascente sexguttatis.

Female. Black, broad, thick, somewhat pubescent and with a few bristles; antennæ piceous, short, 3rd joint round, arista pubescent; abdomen broader than the thorax; legs rather setose, tibiæ and tarsi with yellow bands; wings blackish, rather broad, with about six greyish dots on each; veins black; posterior longitudinal veins abbreviated; discal transverse vein parted by more than twice its length from the border, and by less than its length from the præbrachial transverse. Length of the body $1\frac{1}{2}$ line; of the wings 3 lines.

236. EPHYDRA MACULICORNIS, n. s. *Mas.* Cinereo-nigra, capite antennisque rufis, his puncto nigro, arista nuda, abdomine nigro nitente, tarsis testaceis, alis cinereis apud costam pubescentibus.

Male. Cinereous black; head red in front and about the eyes; antennæ red, 3rd joint round with a black point above; arista short, simple; abdomen oval, black, shining, not longer than the thorax; tarsi testaceous; wings grey, minutely pubescent along the border; veins black; discal transverse vein straight, oblique, parted by more than twice its length from the border and from the præbrachial transverse; halteres piceous. Length of the body 2 lines; of the wings 4 lines.

Gen. OCHTHERA, *Latr.*

237. OCHTHERA INNOTATA, n. s. *Fœm.* Cinereo-nigra, capite antico flavescenti-albo, pectore pedibusque cinereis, abdomine cyanescenti-nigro, alis cinereis, halteribus albidis.

Female. Cinereous black; head yellowish white in front, silvery white hindward; pectus and legs cinereous; abdomen bluish black; wings

grey; veins black; pobrachial vein forming an obtuse angle at its junction with the discal transverse vein, the latter very oblique, parted by little more than half its length from the border, and by nearly thrice its length from the præbrachial transverse; halteres whitish. Length of the body $2\frac{1}{2}$ lines; of the wings $4\frac{1}{2}$ lines.

Fam. PHORIDÆ, *Haliday*.

Gen. PHORA, *Latr.*

238. PHORA BIFASCIATA, n. s. *Fœm.* Atra, subtus flavescenti-alba, antennis fulvis, abdomine lanceolato, fasciis duabus apice pedibus halteribusque flavescenti-albis, pedibus posticis nigris basi flavescenti-albis, tarsis intermediis nigricantibus, alis cinereis.

Female. Deep black, yellowish white beneath; antennæ tawny; abdomen lanceolate, much longer than the thorax; sides elevated, a broad basal yellowish white band, and a narrower one beyond the middle, tip also yellowish white; anterior legs and halteres yellowish white, middle tarsi blackish, hind femora with the basal half yellowish white; wings cinereous, veins black, pale at the base; costal vein ending at a little beyond half the length of the wing; radial cubital, præbrachial, and pobrachial veins parallel and equally distinct. Length of the body 2–$2\frac{1}{2}$ lines; of the wings 5–6 lines.

On the Zoological Geography of the Malay Archipelago. By ALFRED R. WALLACE, Esq. Communicated by CHARLES DARWIN, Esq., F.R.S. & L.S.

[Read Nov. 3rd, 1859.]

IN Mr. Sclater's paper on the Geographical Distribution of Birds, read before the Linnean Society, and published in the 'Proceedings' for February 1858, he has pointed out that the western islands of the Archipelago belong to the Indian, and the eastern to the Australian region of Ornithology. My researches in these countries lead me to believe that the same division will hold good in every branch of Zoology; and the object of my present communication is to mark out the precise limits of each region, and to call attention to some inferences of great general importance as regards the study of the laws of organic distribution.

The Australian and Indian regions of Zoology are very strongly contrasted. In one the Marsupial order constitutes the great mass of the mammalia,—in the other not a solitary marsupial animal exists. Marsupials of at least two genera (*Cuscus* and *Belideus*) are found all over the Moluccas and in Celebes; but none have