

XXIII. *On the Homopterous genus Pyrops, with descriptions of two new species.* By WILLIAM L. DISTANT, F.E.S.

[Read November 8th, 1893.]

THE genus *Pyrops* was founded by Spinola in 1839 (Ann. Soc. Ent. Fr., viii., p. 231), but the type must be sought in the description of his 2nd Division (p. 235), and in the *P. tenebrosus*, Fabr. To those who maintain that the first described or enumerated species of a genus is to be taken as the type of that genus, it would appear that a new generic name is required, for the first species cited is the *Fulgora candelaria*, Linn., which is undoubtedly not a *Pyrops* in the sense universally used. However, all homopterists have followed Spinola's second division as typical, and no useful end would be served in disturbing the arrangement. From this division, however, must be eliminated the *Fulgora obscurata*, Fabr., from Australia, which Stål has placed in his genus *Eurystheus* (Hem. Fabr., ii., p. 115), and the *Fulgora annularis*, Oliv., from Central America, which belongs to the genus *Diareusa*, Walk.

Pyrops is allied to *Fulgora*, and, like that genus, has many points in common. Thus in both, though the specific characters are to be sought in the length and structure of the cephalic process, secondary characters to group the species are found in the colour of the wings, and in *Pyrops* in the colour of the abdomen.

Fulgora is confined to the Oriental region, but *Pyrops* belongs not only to that, but also to the Ethiopian region, in the last of which are alone found the black-winged species; whilst those with white wings are distributed throughout the whole area of the genus.

Having two undescribed species of this somewhat scarce genus in my collection, and possessing most of the other species, I have thought that a generic revision and enumeration might with advantage be given, and such I now present to the Society.

A. *Species with black wings.*

- P. tenebrosus*, Fabr.
P. flammeus, Linn.
P. natalensis, n. sp.
P. madagascariensis, Sign.

B. *Species with fuscous wings, hyaline towards base.*

- P. clavaticeps*, Karsch.

C. *Species with greyish wings, fuscous towards base.*

- P. pustulosus*, Gerst.

D. *Species with white wings.*a. *Abdomen alone fulvous.*

- P. nobilis*, Westw.
P. perpusilla, Walk.
P. mustellinus, Dist.
P. dohrni, Stål.

aa. *Abdomen alone fuscous or black.*

- P. servillei*, Spin.
P. javanensis, Dist.
P. affinis, Westw.
P. chinensis, n. sp.
P. marginatus, Westw.
P. intricatus, Walk.
P. albipennis, Spin.

Species little known or imperfectly described.

- P. punctatus*, Oliv.
P. cognatus, Westw.

1. *Pyrops tenebrosus.*

Fulgora tenebrosa, Fabr., Syst. Ent., p. 674, 8 (1775);
 Sp. Ins., ii., p. 314, 9 (1781); Mant. Ins., ii.,
 p. 260, 9 (1787); Ent. Syst., iv., p. 3, 9 (1794);
 Syst. Rhyng., p. 3, 9 (1803); Oliv., Enc. Méth.,
 vi., p. 568, 7 (1791); Burm., Gen. Ins., subg.
Pyrops, f. 1 (1846); Westw., Trans. Linn. Soc.,
 xviii., p. 142, 14 (1851).

Fulgora africana, Pal. Beauv., Ins., p. 168, Hém.,
 t. 19, f. 3 (1805).

Flata tenebrosa, Germ., Mag. Ent., iii., p. 189, 2 (1818); Thon., Ent. Arch., ii., 2, p. 47, 5 (1830).

Pyrops tenebrosa, Spin., Ann. Ent., viii., p. 235, 3 (1839); A. & S. Hist. des Hém., p. 492, 1 (1843); Walk. (part), List. Hom., ii., p. 268, 2 (1851).

Pyrops tenebrosus, Stål, Hem. Afr., iv., p. 140, 1 (1866); Gerst (part), in Decken, Reise, 3, 2, p. 426, 63 (1873).

Hab. WEST AFRICA: Senegal, Sierra Leone (Stål). EAST AFRICA: Zanzibar (coll. Dist.), Delagoa Bay (S. Afr. Mus. and coll. Dist.).

2. *Pyrops flammeus*.

Cicada flammea, Linn., Cent. Ins., var., p. 16, 39 (1763).

Fulgora flammea, Linn., Syst. Nat., ed. xii., 1, 2, p. 704, 7 (1767); Fabr., Syst. Ent., p. 674, 7 (1775); Spec. Ins., ii., p. 314, 8 (1781); Mant. Ins., ii., p. 260, 8 (1787); Ent. Syst., iv., p. 3, 8 (1794); Syst. Rhyng., p. 3, 8 (1803); Westw., Trans. Linn. Soc., xviii., p. 143, 15 (1851).

Cicada laternaria fusca, deGeer, Mém., iii., p. 200, 3, t. 32, f. 1 (1773).

Pyrops flammeus, Stål, Hem. Afr., iv., p. 141, 3 (1866).

Hab. WEST AFRICA: Isubu, Angola (coll. Dist.).

This species is differentiated from *P. tenebrosus* by its much shorter cephalic process. Its precise habitat was unknown to Stål, who redescribed the unlocalised specimen in deGeer's collection.

3. *Pyrops madagascariensis*.

Pyrops madagascariensis, Sign., Ann. Soc. Ent. Fr., ser. 3, vol. viii., p. 183, 15 (1860); Stål, Hem. Afr., iv., p. 140, 2 (1866).

Hab. MADAGASCAR (coll. Sign.); Ins. Anjoana (Stål).

Of this species Stål remarks: "*P. tenebrosus* maxime affinis, processu capitis apice quam prope apicem haud magis compresso, sed lateribus ante medium parallelis instructo divergit; au distinctus?" Subsequently Signoret (Ann. Soc. Ent. Fr., ser. 6, vol. vi., p. 27 (1886)), in

recording his *P. madagascariensis*, remarks: "Nous voyons si peu de différence avec le *Pyrops tenebrosus*, F., que nous croyons que ce n'est qu'une variété; nous en dirons autant du *flammea*, Lin."

I have not been able to examine a specimen of *P. madagascariensis*, but should presume it to be a distinct species from the differential structural characters of the cephalic process, as given by Stål (supra), while Signoret as certainly did not possess the typical Linnean species.

4. *Pyrops natalensis*, n. sp.

Head, thorax, tegmina, and legs luteous, slightly tinged with testaceous; cephalic process irregularly spotted with black, and with a central elongate ochraceous spot at base; thorax thickly and finely spotted with black, the lateral angles and apex of the mesonotum impunctate; tegmina obscurely and finely spotted with black, the spots most distinct and prominent on costal and apical areas, which are also paler in hue; wings pitchy black; abdomen black, above with the posterior segmental margins brownish, beneath with oblique marginal ochraceous spots; legs irregularly spotted with black. Cephalic process long and robust, coarsely rugose, with three prominent longitudinal narrow waved carinæ above, and two beneath, the others merged and tessellate, the apex obliquely and concavely truncate. Long. from eyes to apex of abdomen, 28 millim.; cephalic process from eyes to apex, 18 millim.; exp. tegm. 85 milim.

Hab. Natal; Durban (coll. Dist.).

A species to be differentiated from the other black-winged Ethiopian species by the length and rugosity of the cephalic process.

5. *Pyrops clavaticeps*.

Pyrops clavaticeps, Karsch, Berl. Ent. Zeit., xxxv., p. 62, t. 11, f. 4 (1890).

Hab. WEST AFRICA: Loango. EAST AFRICA: Zanzibar (Karsch).

6. *Pyrops pustulosus*.

Pyrops pustulosus, Gerst, in Decken Reise, 3, 2, p. 427, 64, t. xvii., f. 9 (1873).

Hab. EAST AFRICA: Zanzibar (Gerst.).

7. *Pyrops nobilis*.

Fulgora nobilis, Westw., Trans. Linn. Soc., xviii., p. 146, t. 12, f. 10 (1841).

Pyrops nobilis, Walk. (excl. syn.), List. Hom., ii., p. 268, 1 (1851); Journ. Linn. Soc., Zool., 1867; Atkins, J. A. S. Beng., vol. lv., pt. ii., No. 1, p. 200, 116 (1886).

Hab. MALAY PENINSULA: Malacca (Westw.), Perak (coll. Dist.). MALAY ARCHIPELAGO: Sumatra (Brit. Mus. and coll. Dist.), Borneo, Kina Balu Mt. (coll. Dist.).

8. *Pyrops perpusilla*.

Pyrops perpusilla, Walk., List. Hom., ii., p. 269, 7 (1851); Atkins, J. A. S. Beng., vol. liv., pt. ii., n. 3, p. 140, 23 (1885).

Hab. CONTINENTAL INDIA: North Bengal (Brit. Mus.), Naga Hills (coll. Dist.).

9. *Pyrops mustellinus*.

Pyrops mustellinus, Dist., Ann. & Mag. Nat. Hist., ser. 5, vol. xii., p. 243 (1883).

Hab. JAVA (coll. Dist.).

10. *Pyrops dohrni*.

Pyrops dohrni, Stål, Ofv. Vet.-Ak. Förh., 1858, p. 449.

Hab. CEYLON (Stål).

Mr. Kirby, in his much controverted paper on Ceylonese Rhynchota (Journ. Linn. Soc., Zool., vol. xxiv., p. 133 (1891)), records this species as a synonym of the *P. affinis*, Westw. This is the more singular, as Stål, besides other differences, distinctly describes the different colour of the abdomen, "Abdomine sordide flavo-testaceo, haud nigro."

11. *Pyrops servillei*.

Pyrops servillei, Spin., Ann. Soc. Ent. Fr., viii., p. 237, 6, t. 2, f. 1 (1839).

Hab. JAVA (Spin.).

Walker (List. Hom., ii., p. 268 (1851)) records this species as a synonym of *P. nobilis*, Westw. It is to be noted that Walker, who so frequently described the same

species several times over, is equally to be dreaded when he writes synthetically.

12. *Pyrops javanensis*.

Pyrops javanensis, Dist., Ann. & Mag. Nat. Hist., ser. 5, vol. xii., p. 242 (1883).

Hab. JAVA (coll. Dist.).

13. *Pyrops affinis*.

Fulgora affinis, Westw., Trans. Linn. Soc., xviii, p. 144, t. 12, f. 6 (1841).

Pyrops punctata, Walk. (part), List. Hom., ii., p. 268, 3 (1851); Atkins (part), J. A. S. Beng., vol. liv., pt. ii., n. 3, p. 140, 22 (1885).

Pyrops affinis, Kirby (part), Journ. Linn. Soc., Zool., vol. xxiv., p. 133 (1891).

Hab. CONTINENTAL INDIA: Nepaul, Silhet (Brit. Mus.), Sikkim (Calc. Mus.), Naga Hills (coll. Dist.), Ceylon (Brit. Mus.). MALAY ARCHIPELAGO: Java (Brit. Mus.). CHINA: Hong Kong (Brit. Mus.).

Mr. Atkinson followed Walker in placing this species as a synonym of *P. punctata*, Oliv., which was founded on a figure given by Stoll of an insect he recorded from Guinea. Though Stoll's habitats are not always without doubt, neither is his figure in this instance capable of being applied to the Indian species of Westwood.

14. *Pyrops chinensis*, n. sp.

Head, thorax, tegmina, and legs sordidly greyish, slightly tinged with ochraceous; cephalic process with a few black spots, more numerous at base, its apical margin ochraceous; thorax somewhat thickly spotted with black; tegmina thickly spotted with black, the spots slightly larger and more prominent at anterior and apical areas, the venation ochraceous; wings lacteous; abdomen black, more or less tinged with cretaceous, the posterior segmental margins obscurely brownish; legs prominently and irregularly spotted with black. Cephalic process about as long as the abdomen, its apex obliquely truncate and moderately excavated; its surface marked with eight narrow longitudinal carinæ, some of which are much waved, and become obscure towards base. Long. from eyes to apex of abdomen, 19 millim.; cephalic process from eyes to apex, 14 millim.; exp. tegm. 60 to 65 millim.

Hab. CHINA: Chia-Hou-Ho, 1700 ft.

For the possession of this species I am indebted to J. H. Leech, Esq., and it was obtained during Mr. Pratt's expedition.

15. *Pyrops marginatus*.

Fulgora marginata, Westw., Trans. Linn. Soc., vol. xviii., p. 144, 17 (1841).

Hab. S. AFRICA: Cape of Good Hope (Oxford and Brit. Mus.), Cape Colony (coll. Dist.).

16. *Pyrops intricatus*.

Pyrops intricatus, Walk., List. Hom., Suppl., p. 43 (1858).

Hab. S. AFRICA: Natal, Durban (Brit. Mus. and coll. Dist.).

17. *Pyrops albipennis*.

Pyrops albipennis, Spin., Ann. Soc. Ent. Fr., viii., p. 238, 7 (1839); Stål, Hem. Afr., iv., p. 141, 4 (1866).

Hab. WEST AFRICA: Senegal (Stål), Guinea (Spin.).

Species little known and of doubtful habitat.

Pyrops punctatus.

Fulgora punctata, Oliv., Enc. Meth., vi., p. 569, 8 (1791); Gray, Griffith An. King, t. 138, f. 2, A, C (1832); Westw., Trans. Linn. Soc., xviii., p. 143, 16 (1841).

Flata punctata, Germ., Thon's Archiv., ii. (2), p. 47 (1830).

Pyrops punctata, Walk. (part), List. Hom., ii., p. 268 (1851); Schaum, Peters, Reise Ins., p. 51 (1862); Atkins. (part), J. A. S. Beng., vol. liv., pt. ii., n. 3, p. 140, 22 (1885); Stoll, Cig., f. 28.

Hab. Guinea?

Pyrops cognatus.

Fulgora cognata, Westw., Trans. Linn. Soc., vol. xviii., p. 145, 19 (1841).

Hab.—?