

SOME NOTES ON INDIAN SYRPHIDAE, CONOPIDAE AND OESTRIDAE.

By E. BRUNETTI.

Having received a most kind invitation in the summer of 1923 from Monsieur Hervé-Bazin, with whom I had corresponded slightly some years ago whilst I was in India and he in China, I was afforded the privilege of studying, at his charming old French chateau, his splendid and extensive collection of Syrphidae; and we were enabled to examine the greater part of the species of this family recorded by me in the "Fauna of British India" volume.

This led to the discovery of numerous errors in generic location, and to the relegation to synonymy of several of my species. Monsieur Hervé-Bazin has included all these corrections in a short paper,¹ but since then additional errors and omissions have come to my notice and these are dealt with in the present summary.

It was with exceeding regret that I discovered that no acknowledgment had been made in my volume to Colonel Yerbury for the very valuable assistance he has rendered me on many occasions in consultation on doubtful points and synonymy, in which his extended acquaintance with this family was of the utmost service. My indebtedness to him is great and my thanks are sincerely tendered, also for permission to draw on the very copious notes on Ceylon Syrphidae compiled by him during his residence on that island.

SYRPHIDAE.

Pipizella rufocincta Brun. Mr. Hervé-Bazin has shewn that *P. rufiventris* Brun. is really a *Syrphus*, and I now think that *P. rufocincta* can hardly be a true *Pipizella*, though the specimens referred to are not at present available for comparison. As the name *Syrphus rufiventris* is pre-occupied by Macquart in 1849 for an Australian species, I propose *S. bazini* in consideration for the assistance Mr. Hervé-Bazin has generously rendered me in this family.

Dideoides kempî Brun. The description of the legs should read: "coxae, nearly all the basal half of anterior femora and more than basal half of hind pair; more than apical half of hind tibiae; and all tarsi, wholly black; remainder of legs orange." The only black in the tibiae is the apical half of the hind pair, but all three pairs of tarsi are entirely black.

¹ *Ann. Soc. Ent. Fran.* XCII, 289 [March 26, 1924]. Other short papers by this author touching on Oriental Syrphidae are as follows: *Bull. Soc. Ent. Fran.* 1922, p. 213 (*Korinchia*); *Id.* 1923, p. 25 (new species from Laos, some of which are synonymous with my own); *Id.* 1923, p. 29 (notes on a paper by Becker); *Bull. Mus. Paris* XXIX, p. 252 (*Megaspis*, *Volucella*); *Id.* p. 173 (*Lathyrophthalmus*); *Ann. Sci. Nat. (Zool.)*, (10) VI, p. 125 (*Lathyrophthalmus*).

Syrphus cinctellus Zett. I have taken this species on more than one occasion at Darjiling and its identity occurred to me from the first capture, although subsequently doubts arose. On comparison with European specimens the identity was fully confirmed by both Mr. Hervé-Bazin and myself.

Ischiodon scutellaris Fab. My statement (*Fauna*, p. 97) that the stick-like processes are present on the trochanters in both sexes is incorrect, they being present in the ♂ only, as stated by Sack. I have a note of the species being bred from larvae preying on Aphidae on roses at Dehra Dun, 29-XI-18 [*Chatterjee*].

Sphaerophoria bengalensis Macq. My reference to this species (*Fauna*, p. 100) is not clear. The commonest Indian species of the genus is what I have regarded as *indiana* Big. and which may be a form of the equally common European *scripta* L. The other Indian species may be Macquart's *bengalensis*, which may be synonymous with, or a variety of the common European *menthrastris* L. (*taeniatus* Mg.). Macquart's brief description runs as follows:—

“Similar to *S. taeniata*, differing only by the shorter abdomen, of which the bands are wider; the first placed at the middle of the 2nd segment; the 4th segment is tawny with a dorsal black stripe. Bengal (M. Duvaucel), Paris Museum.”

Eristalis (Lathroptalmus) connectens Bazin. This species, is recorded from Trichinopoly, Ceylon, one ♂ in Mr. Hervé-Bazin's collection. It also occurs in Java. It was described in the *Ann. Sci. Nat. (Zool.)*, (10) VI, 148, fig. 24, ♂ (p. 149). It was omitted in error from the *Fauna* volume.

Eristalis (Lathroptalmus) lugens Wied. (*tarsalis* Macq.). A ♂ recorded by Mr. Hervé-Bazin from Kodaikanal, South India, May 1913. This gentleman has it also from Nankin and other localities, and makes some interesting notes on it in a recent short paper.¹

Eristalis quadristriatus Macq. This species, described from India, was inadvertently omitted; Macquart's description is therefore appended. It must be rather closely allied to *arvorum* but differences in the frons, abdominal markings and the colour of the femora may make it distinct.

“♀. Allied to *E. arvorum* F. Face and frons black, with whitish tomentum; facial bump yellowish. First two antennal joints yellow (3rd missing). Eyes bare, with small black spots. Thorax brassy, with four stripes and a longitudinal one of yellowish white tomentum; scutellum yellowish, black at base. Abdomen dull black, 1st segment yellow, 2nd with a shining yellow band in front, excised in middle and with a transverse yellow spot at each end of anterior margin; 3rd with a small, oblique yellow spot at each end of anterior margin; hind margins of 2nd, 3rd and 4th segments steel coloured, shining; 5th segment entirely of this colour. Belly yellow, tip black. Femora simple, black, tips yellow; tibiae yellow, tips brown; tarsi yellow. Wings hyaline, venation normal, no appendix at inner corner of discal cell.” Macquart

¹ *Ann. Sci. Nat. (Zool.)*, (10) VI, 137.

also referred a ♂ to this species differing only in the tawny scutellum with yellow margin, and in the black and steel parts in the ♀ abdomen being replaced by tawny. Described from India ; in Bigot's collection. Length 8 mm.

Eristalis arvorum F. The reference to the synonym "*Syrphus quadrilineatus* Fab." should read "Mant. Ins." and not "op. cit."

Eristalis simulatus Brun. This cannot be identical with *cerealis* F. as suggested by me (*Fauna*, 414) as it is nothing like *solitus* Walk. which latter species is synonymous with *cerealis*.

Eristalis multifarius Walk. The description of the antennae was omitted. First joint very short, 1st and 2nd joints black, 3rd dark brown, a little greyish dusted, arista bare, orange brown.

Megaspis aesygnus Walk. This species must be deleted from the Indian list, it having been included in my *Fauna* volume inadvertently, possibly through Van der Wulp having given it as coming from East India. In several cases he has altered Walker's quotation "East Indies" to "East India," which of course is not at all the same thing. It is probable that in the early days of zoology the terms "East Indies" and "West Indies" were applied loosely to any part of the Orient and to any of the lands bordering on the Gulf of Mexico respectively.

Merodon interveniens Walk. A closer study of the possible synonyms of this species, except the two which I have had actually before me (*pictipes* Big. and *orientalis* Brun.), impels me to reject all of them. *Eristalis vilis* Wied. must be a true *Eristalis* (sensu lato), as the genus *Merodon* was well known to Wiedemann. Macquart in his *Helophilus curvigaster* neither mentions nor figures any tooth on the hind femora, though his descriptions are often found to be inadequate. *Simoides crassipes* F., an African species, has a closed marginal cell, and is an *Eristalis* (sensu lato), yet *M. interveniens* does appear at first sight like a small form of *crassipes*. The structure of the hind femora in the two species is, however, totally different from one another.

Dissoptera pollinosa Edw. This genus and species were inadvertently omitted. Both were described in the *Proc. Zool. Soc. Lond.* XXX, p. 410, ♂ ♀, pl. xxxviii, fig. 6 (1915), the type coming from Papua, the other specimens, all of which are in the British Museum, from Dong Hanon, Mishmi Country, 2,000 ft., N. E. India, on the Thibetan Frontier, 27, VII, XI, [*F. M. B. viley*]; the Malay States, the New Hebrides and Queensland. *Eristalis flavohirta* Klocker (*Mem. Queens. Mus.* VIII, pt. 1, p. 57 (1924), from Dunk Island, Queensland is synonymous, as Mr. Edwards has informed me.

Milesia sexmaculata Brun. Of this species, described from the ♂ alone, a ♀ has come before me from Coimbatore, South India, sent by Mr. Bainbrigge Fletcher. It agrees very well with the ♂ except that the abdominal spots are rather smaller and narrower. The frons and face are chrome yellow and widen regularly and rather rapidly from the vertex to the lower part of the eyes, the frons being distinctly less than one-third the width of the head at the base of the antennal prominence, the small vertical triangle being black, triangular, with three small dull yellow ocelli. The legs are shortly and softly pubescent. Length about 18 mm., which is considerably less than that of the ♂.

Microdon auricinctus Brun. In the table of species this should be included in couplet 12 (not 13). Also in line 2 from bottom of page 309 after the words "considerable part red" add, in brackets, ("or brown with gold pubescence in *flavipes*").

Microdon apiformis Brun. This name is pre-occupied by Degeer in 1766 for a European species, the name being synonymous with *mutabilis* L., and it was used again in 1824 by Curtis, in which instance it is a synonym of *devius* L. I have proposed *apidiformis* nom. nov. in *Rec. Ind. Mus.* XXVI, 152 (March, 1924).

CONOPIDAE.

Owing to the war a paper on Oriental Conopidae published in 1915 by Prof. Krober was not seen by me until after the issue of my volume. In it he has established a number of new species, none of which appear to be synonymous with any of mine. These are as follows:—

<i>Conops indicus</i>	Krob. <i>Arch. Naturg.</i> LXXXI, Heft 7, p. 45.	♂	Sikkim.
<i>C. nigrofasciatus</i>	<i>loc. cit.</i> p. 46.	♀	Rangoon.
<i>C. maculiventris</i>	„ p. 50.	♂ ♀	Sikkim; Burma.
<i>C. tenthrediniformis</i>	„ p. 51.	♂	Burma.
<i>C. punctifrons</i>	„ p. 52.	♀	Sikkim.
<i>C. brevirostris</i>	„ p. 53.	♀	Burma.
<i>C. pseudogigas</i>	„ p. 55.	♂	Burma.
<i>C. frontosus</i>	„ p. 57.	♂	Sikkim.

Dr. de Meijere described *C. celebensis* from Celebes [*Tijd. v. Ent.* LIII 165 (1910), as a *Physocephala*], and Krober records it (*Arch. Naturg.* LXXXI, Heft 7, p. 52) from Sikkim.

Conops ornatus Big. 1892. This name was used during the same year for a species by Williston (*Kans. Univ. Quart.* I, No. 1, p. 46, 1892). As this latter was described on page 46 of the above work, whereas Bigot's species was described on page 211 (*Bull. Soc. Zool. France*, XVII) it must certainly have been published first, so that *ornatus* Big. must be renamed, and I have therefore pleasure in proposing *bigoti*, nom. nov.

Conops sepulchralis Brun. This is near *pseudogigas* Krob., but distinct. The latter species has different antennae, a dark spot on each side of the face, a shorter and thicker proboscis, and pale brown wings with an intense violet tinge.

Conops rufofasciatus Brun. This is near *maculiventris* Krob. The latter has a black transverse band above the antennae. The 3rd and 4th abdominal segments are reddish yellow, with nearly triangular black dorsal spots and black side margins. Length 15 mm. Sikkim and Burma.

In *Physocephala* Dr. Becker has described recently the following species:—

<i>P. furax</i>	<i>Ann. St. Petersb.</i> XVII, p. 612	♂ ♀	(1913). Perso-Baluchistan.
<i>P. laeta</i>	<i>loc. cit.</i>	p. 613	♂ ♀ <i>id.</i>
<i>P. detecta</i>	„	p. 615	♂ <i>id.</i>

Prof. Krober redescribes these three species with additional new ones as follows:—

<i>P. detecta</i> Beck.	<i>Arch. Naturg.</i> LXXX, Heft. 10, p. 58 (1914).	Perso-Baluchistan.
<i>P. furax</i> Beck.	<i>loc. cit.</i> p. 58	<i>id.</i>
<i>P. zarudnyi</i> Beck.	„ p. 65 ♂	<i>id.</i>
<i>P. laeta</i> Beck.	„ p. 69	<i>id.</i>
<i>P. persica</i> Krob.	„ p. 59 ♂♀	<i>id.</i>
<i>P. pugioniformis</i> <i>id.</i>	„ p. 64	<i>id.</i>
<i>P. punctithorax</i> <i>id.</i>	„ p. 69	<i>id.</i>
<i>P. scutellata</i> <i>id.</i>	„ LXXXI, Heft. 4, p. 118 ♂ (1915)	Burma.
<i>P. assamensis</i> <i>id.</i>	„ p. 121 ♀	Assam.
<i>P. aterrima</i> <i>id.</i>	„ p. 122 ♂♀	Sikkim.
<i>P. ammophiliformis</i> <i>id.</i>	<i>loc. cit.</i> p. 122 ♂	Burma.
<i>P. aureopygia</i> <i>id.</i>	„ p. 123 ♂♀, p. 131.	Sikkim and Australia.

The Perso-Baluchistan species should be included in any list like the present one as they are all liable to occur in Western and North Western India.

Physocephala bicolor Brun. This name being pre-occupied by Krober (1915) for a species from Matto Grosso, Brazil, I propose *bicolorata* as a nomen novum.

Physocephala diffusa Brun. This comes near *P. limbipennis* Macq., but the latter has a broad blackish brown band before the tip of the hind femora, which is absent in my species.

Physocephala testacea Macq. (*Conops id.*). I examined the type ♀ with another female in the Paris Museum. A reddish brown species; 1st and 2nd abdominal segments wholly red brown, 3rd similarly coloured, bearing a broad hind marginal gold dusted band, 4th segment black with a similar gold margin, remainder more or less gold dusted. Wings clear, a brown costal band ending in clear cut truncate form opposite middle of discal cell; 1st basal cell wholly clear. Legs reddish brown, hind femora a little blackish above. Length about 11 mm.

Sicus vaginalis Krob. *Arch. Naturg.* LXXXI, Heft 1, p. 88, ♀. From East India (“Ostindien”).

Occemyia atra. One specimen from Shillong, viii-x-1919 [Fletcher], is probably a large variety of this common European species.

OESTRIDAE.

Therobia abdominalis Wied., *Auss. Zweifl.* II, 200. This species of Oestridae was omitted from the “Fauna” volume on account of Braner himself having removed it to the Tachinidae. I claim no excuse for overlooking the fact that some authors place in the Tachinidae certain genera which have till recently been considered to be Oestrids.

It is described from Bengal. *Type* in Vienna Museum.