FURTHER RECORDS OF INDO-CEYLONENE CHALCID FLIES.

BY

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Over fifteen years ago the senior author published an annotated list\(^1\) of the then known chalcid flies of the Indo-Ceylonese region and two years later he issued another paper\(^2\) on the parasitic hymenoptera of South India in which were included some more of the chalcid flies which were not recorded previously. Since then many more forms have been noted and it is the object of this paper to supplement the earlier lists with a record of the Indo-Ceylonese forms which have been noted and identified recently with brief notes as regards their hosts, locality, distribution etc., and with bibliographical references. As a continuation of the previous lists it is hoped that this paper may serve to bring our knowledge of the Indo-Ceylonese forms up-to-date and in view of the economic importance of these minute wasps as natural enemies of some of our important crop-pests it may be of some help to agricultural entomologists who may be interested in the biological control of insect pests by means of various insect parasites. The thanks of the writers are due to Dr. Ferriere of the Imperial Institute of Entomology, London, to Prof. Timberlake, the famous Californian authority on Chalcids and to others who examined our specimens and helped us in getting them identified for us. It is also hoped that this list might prove of some use as a reference list to those interested in the study of this interesting group of parasites.

SUPERFAMILY: CHALCIDOIDEA.

FAMILY: ACAONIDAE.

Blastophaga Grav.

Sub-genus: Elizabethiella Grandi.


Coratosolen Mayr.


FAMILY: CHALCIDIDAE.

Leucospis Fabricius.

Leucospis malabarensis, Brues, Psyche, xxxii, p. 27 (1925), India.

Euchalcidia Masi.


Dirhinus Dalman.

Dirhinus pachymerum, Masi, Eos. iii, p. 42, India.

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\(^1\) 'A Check List of Indo-Ceylonese Chalcid Flies' by T. V. Ramakrishna Ayyar, Spolia Zeylanica, vol. xiii, 1925.

\(^2\) 'The Parasitic Hymenoptera of Economic Importance in South India' by T. V. Ramakrishna Ayyar, Bulletin of Entomological Research, vol. xviii, 1927.
Brachymeria Westw.


Hockeria Walk.


Stenochalcis Masi.


Family: Eucharidae.

Schizaspidia Westw.


Family: Topymidæ.

Podagrion Spinola.


Family: Encyridæ.

Encyrtus Mahdi Hassan.


Lissencyrtus Cameron.


Tachardiaephagus Ashmead.


= Encyrtus tachardiae, Howard, 1896.
= Tachardiaephagus thoracicus, Ashmead, 1904.
= Lissencyrtus troupi, Cameron, 1913.

According to Dr. Ferriere the species somerville should be included in this genus and the same can be distinguished from T. tachardiae (How.) ‘especially by the colour of the head, which is orange yellow like the thorax, instead of dark’. Insects noted on lac, on Zizyphus jujuba; Bengal, India.

Encyrtus Latreille.

Encyrtus barbatus, Timb., on Lecanium nigrum, Coimbatore, India.

Microterys Thoms.

Microterys kotinskyi, Full, on Lecanium nigrum, Coimbatore, India.

Tetracnemus Westw.

Tetracnemus indicus, Ramakrishna, Rec. Ind. Mus. xxxiv, Pt. iii, pp. 287-288 (September 1932). Parasites of an injurious mealy bug Pseudococcus citri commonly noted on Agathi—Sesbania aculeata in Coimbatore, India.

Homalotylus Mayr.

Homalotylus flaminus (Dalm.). On Coccinellid, Coimbatore, India.
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FAMILY: PTEROMALIDAE,
Trigonogastra Ashmead.

Trigonogastra brunnecornis, Ferriere, Bull. Ent. Res. xxi, Pt. 3, pp. 356-357 (October 1930). Species described. On Pupa of Agromyza sp. mining stems of Hibiscus esculentus. This species differs from T. rugosa and T. megacephala 'by the large size, the darker green coloration of head and thorax, the presence of four teeth on both mandibles and the more elongated funicale joints.' Peradeniya, Ceylon.

Acroclisoides Girault.

Acroclisoides indicus, Ferriere, Bull. Ent. Res. xxii, Pt. 2, pp. 279-280 (June 1931). Species described. 'Genus is well characterized by its large head, which is much broader than the thorax and broader than long when seen in front, by the elongate antennae with two ring-joints, the thickened marginal vein, the very short petiole, and the small triangular abdomen.' Also key to species of the genus given. On eggs of a Pentatomid bug on teak leaf. Dehra Dun, U.P., India.

Agiommatus Crawford.


FAMILY: PERILAMPIDAE.

Perilampus Lait.


FAMILY: ELASMIDAE.

Elasmus Westw.

Elasmus brevicornis, Gahan, Treubia iii, p. 50 (1922): Type locality Java, Buitenzorg: Host—Erionata thrax, L.; Ferriere, Bull. Ent. Res. xx, Pt. 4, p. 413 (December 1929). Parasitic on larva of Hopalit machaeratis, Wilkn., on Tectona grandis, Dehra Dun, India, also noted in Kuala Lumpur, Malaya, from Psalis stultalis on Pogostemon patchouli, and also found parasitic on larva of Syleta derogata.


Elasmus homonea, Ferriere, Bull. Ent. Res. xx, Pt. 4, pp. 415-416 (December 1929). Species described. From Homona coffearia, Nietn., on tea, Ceylon. Points that distinguish this species from E. nephanthis, Boh., are also given.


'This species may be distinguished by the dark colouration of its body and legs, by the hind tibiae being clear with a brown ring below the middle and by the form of antennae and abdomen.'

Elasmus claripennis, Cameron. Ferriere, Bull. Ent. Res. xx, Pt. 4, p. 418 (December 1929). Synonyma given:
= Cyclopleura claripennis, Cameron, Ind. For. Rec. iv, p. 92 (1913).
= Elasmus colmani, Mahdihassan, JI. Sc. Assoc. Maharajah's College, Vijianagaram, 1, p. 69 (1923) as parasitic on Eublemma amabilis, M.; bred
with Tachardia lacca from Eublemma amabiliis predaceous on the former, India, Dehra Dun and from Bengal; Ferriere, Bull. Ent. Res. xix. Pt. 2, pp. 171-172 (October 1929). Species described. The relationship of the genus Cyclopleura with Elasmus given and the synonyms discussed. The distinguishing features that characterise E. claripennis, E. indicus, Roh., and E. nephan-tidis Roh., are also given.

**Family: Eulophidae**

**Pleurotropis Forster.**


*Thripoctenus Craw.*


*Cocophagus Westw.*


*Tetrastichus Haliday.*

*Tetrastichus gardeneri*, Ferriere, Bull. Ent. Res. xxii, Pt. 2, pp. 291-292 (June 1931). Species described: from eggs of Pentatomidae on teak; from the same eggs were also bred Acroclisoides indicus, and an Eupelmid identified as Anastatus colemani, Craw.; notes on Tetrastichus species given as regards their parasitic habits, Dehra Dun, India.

*Tetrastichus schoenobii*, Ferriere, Bull. Ent. Res. xxii, Pt. 2, pp. 290-291 (June 1931). Described: Malaya Peninsula, Ceylon and Siam on eggs of Schoenobius bipunctifer (Malaya and Siam) and of Spodoptera mauritia in Ceylon; also noted on eggs of Schoenobius in South India.

Sub-genus: *Gemiocerus* Ratz.

*Tetrastichus (Gemiocerus) purpureus* (Cam.). Ferriere, Bull. Ent. Res. xix, Pt. 2, pp. 174-175 (October 1928). Synonyms given: Reared from Lac on Zizyphus jujuba, Bengal. Its relationship with the synonyms given and also the distinguishing features of the sub-genus *Gemiocerus*, Ratz.

*Trichospilus* Ferriere.


Note.—'By an oversight the record of the species *Trichogramma minutum*, R. (Trichogrammatidae) was left out in the text. It has been noted in India on the eggs of the sugarcane borers (*Diatroca, Argryia* and *Scirphoga* spp.), the paddy stem borer (*Schoenobius incertellus*, W.) and the stored paddy moth (*Sitotroga cerealella*, Ol.). During recent years this wasp assumed very great importance as an important parasite and a good deal of literature has accumulated in connection with its utility as a natural enemy of borers on cane.'—(T.V.R. & V.M.)