

***Megatrioza hirsuta* Crawford.**

Under the name *Kuwayama hirsuta* Crawford this species was described in my earlier paper on Indian Psyllidae (p. 427). It has subsequently been referred to the genus *Megatrioza*. In the present collection the specimens were collected by Ramakrishna in galls on *Terminalia* at Mundakayam, Travancore, S. India, October, 1923.

***Trioza fletcheri* Crawford.**

This species described in my earlier paper (p. 434) turns up again in the Ramakrishna collection, the specimens having been collected from galls on leaves of *Trewia* at Coimbatore, December, 1913.

## LIST OF PSYLLIDAE RECORDED FROM INDIA AND CEYLON.

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The following list of Indo-Ceylonese '*Psyllidae*' with their chief bibliographical references was prepared by the writer in connection with his recent attempt at a systematic study of this family of Homopterous insects inhabiting South India. It is published with the idea that it may serve some useful purpose to those working on this group with all its inevitable shortcomings; and no such ready reference list has been brought out till now. The classification followed is mainly that of Dr. Crawford, the well known authority on the family, and the author hereby expresses his thanks to him for the help and encouragement he is receiving in the study of this family of insects. The list also includes new South Indian species described in Dr. Crawford's paper from material submitted to him by the writer.

## Sub-family PAUROPSYLLINAE.

*Apsylla* Crawford.

*Apsylla cistellata*, Buckton. Crawford, *Rec. Ind. Mus.* VII, p. 421, 1912.—*Psylla cistellata*, Buckton. *Ind. Mus. Notes* III, pp. 13 and 91 (1893), on mango shoots, Dehra Dun and Bengal; Letroy's *Indian Insect Life*, p. 742, figs. 514 and 515.

*Paurocephala* Crawford=*Agonoscena* Enderlein.

*P. psylloptera*, Cr., *Phil. Journ. Science*, X, p. 260, 1915, on shoots of *Ficus* spp., Peradeniya, Ceylon. On shoots of *Ficus* spp., Tenmalai, W. Ghats, Travancore, October, 1923. (Ramakrishna Coll.) Also recorded from the Philippines, Borneo, etc., see p. 149 *Phil. Journ. Sc.* XV, 1919.

*Pauropsylla* Rubsaamen.

*P. ficicola*, Kieffer, *Ann. Soc. Sci. Bruxelles*, XXIX, p. 169, 1905, In galls of *Ficus hookeri*. Bengal.

*P. globuli*, Kieffer, *Ibid.*, p. 172. Bengal.

*P. depressa*, Cr., *Rec. Ind. Mus.* VII, p. 429, 1912. In galls of *Ficus glomerata*. Noted on the same plant, Coimbatore. (Ramakrishna Coll.)

Noted also in galls of cinnamon leaves, S. Kanara. (Ramakrishna Coll.)

*P. tuberculata*, Cr., *Rec. Ind. Mus.* VII, p. 430, 1912. On pumpkin, Pusa, Bengal, also on "*Alstonia scholaris*". Probably this is the species figured in Lefroy's *Indian Insect Life*, p. 742, plate lxxx.

*P. floccosa*, Crawford, *Phil. Journ. Sc.* X, p. 259, 1915. On leaves of *Aglaiia roxburghiana*, Peradeniya, Ceylon.

*P. spondiasae*, Craw., *Phil. Journ. Sc.* X, p. 260, 1915, In leaf galls of *Spondias margiferae*. Peradeniya, Ceylon.

*P. nigra*, Crawford, *Phil. Journ. Sc.* XV, p. 143, 1919. Pusa, Bengal, described from one female.

*Diceraopsylla* Crawford.

*D. brunettii*, Craw., *Rec. Ind. Mus.* VII, p. 425, 1912. Darjiling, Eastern Himalayas.

*Phacopteron* Buckton.

*P. lentiginosum*, Buck., *Ind. Mus. Notes* III (5), p. 18, 1894. On *Garuga pinnata*, Poona.

" Craw., *Rec. Ind. Mus.* VII, p. 420, 1912. On *Garuga pinnata*, Dehra Dun.

" Craw., *Phil. Journ. Sc.*, XV, p. 154, 1919. Coorg.

" Ramkrishna Ayyar. *Rept. 3rd Ent. Meeting*, Pusa, 1919, p. 1030 with fig. of insects and galls. In *Garuga pinnata* galls N. Malabar. (Ramakrishna Coll.)

Kieffer's *Phacosema* and Buckton's *Phacopteron* are in the opinion of Crawford congeneric. For Kieffer's *Phacosema* and his species *P. gallicola* see p. 388, *Zeits. für Wissen. Ins-ktenbiol.*, II, 1906—from Trichinopoly, in Cinnamon galls.

## Sub-family CARSIDARINAE.

*Homotoma* Guerin.

*H. distincta*, Crawford, *Rec. Ind. Mus.* VII, 1912, p. 433. Pusa, Bengal.

*Macrohomotoma* Kuwayama.

*M. striata*, Crawford, n. sp. On *Ficus* leaves, Kollegal (Ramakrishna Coll.), description not published yet.

*Rhinopsylla* Riley.

*R. stylata*, Crawford, *Rec. Ind. Mus.* VII, p. 426, 1912. One female from Simla.

*Dynopsylla* Crawford.

*D. grandis*, Crawford, n. sp. (see antea p. 619). In galls on *Ficus nervosa* leaves, Taliparamba, N. Malabar. (Ramakrishna Coll.)

*D. grandis*, Ramakrishna Ayyar *Rept. 3rd Ent. Meeting*, Pusa, 1919, p. 1031. (Figure of insect and gall.)

*Tenaphalara* Kuwayama.

*T. acutipennis*, Kuwayama, *Trans. Sapporo Nat. Hist. Soc.* 1908, p. 155. Formosa.

=*T. elongata*, Crawford, *Rec. Ind. Mus.* VII, p. 432, 1912. On silk cotton, Pusa, Bengal. (See also *Phil. Journ. Sci.* XV, p. 164, 1919, for Philippine record.)

*Tyora* Walker.

*T. indica*, Crawford, *Phil. Journ. Sci.* XV, p. 159, 1919. Coorg, S. India.

*Cecidopsylla* Kieffer.

*C. schimoe*, Kieffer, *Ann. Soc. Sci. Bruxelles*, 1905, p. 160. Bengal.

## Sub-family PSYLLINAE.

*Psylla* Geoffroy.

*P. cedretae*, Kieffer, *Ann. Soc. Sci. Bruxelles*, 1905, p. 174. Bengal.

*P. obsoleta*, Buckton, *Ind. Mus. Notes* V (2), p. 35, 1900. In galls on *Diospyros melanoxylon*; Bombay. Lefroy, *Indian Insect Life*, fig. 516.

*P. simlae*, Crawford, *Rec. Ind. Mus.* VII, p. 426, 1912. Simla.

*Euphalerus* Schwarz.

*E. vittatus*, Crawford, *Rec. Ind. Mus.* VII, p. 423, 1912. On *Cassia fistula*. Calcutta.

*Diaphorina* Low.

*D. citri*, Kuwayama, *Trans. Sapp. Nat. Hist. Soc.* II, p. 160, 1908.

=*Euphalerus citri*, Crawford, *Rec. Ind. Mus.* VII, p. 424, 1912. Adhra, Bengal, also recorded on *Citrus* from the Philippines. Noted on shoots of *Citrus* and *Murraya koenigii* in Coimbatore, S. India. (Ramakrishna Coll.)

*D. guttulata*, Lethierry. *Proc. Asiat. Soc. Bengal*, 1890, p. 165. Poona, Bombay; later specimens collected at Poona by Fletcher in September, 1911, which were named as *Euphalerus citri* by Crawford (*Phil. Journ. Sci.* XII, p. 168, 1917) are now found to belong to this species of Lethierry.

*D. cardiae*, Crawford, n. sp. (see *antea* p. 617) bred on *Cardia cordata*. Coimbatore, South India. (Ramakrishna Coll.)

*D. truncata*, Crawford, n. sp. (see *antea* p. 617) on shoots of *Nux vomica*. Walayar forests, Malabar. (Ramakrishna Coll.)

*Arytaina* Foerster=*Psyllopa* Crawford.

*A. punctipennis*, Crawford, *Rec. Ind. Mus.* VII, p. 431, 1912, on Indigo, Pusa, Bengal. This is probably *Psylla isitis* of Buckton and there is little doubt that the insect dealt with as Indigo Psylla in the Pusa Memoir, Ent. Series IV (6) is this insect. Also noted from Ceylon on Indigo.

*A. obscura*, Crawford=*Psyllopa obscura*, Crawford, *Rec. Ind. Mus.* VII, p. 432, 1912. On mango leaf, Pusa (described from one specimen). Noted also on *Dalbergia* leaves, Coimbatore. (Ramakrishna Coll.)

*A. ramakrishni*, Crawford, n. sp. (see *antea* p. 618). On galls in leaves of *Chloroxylon swietenia*, Coimbatore, S. India. (Ramakrishna Coll.)

*Eurhinocola* Crawford.

(close to *Euphyllura*).

*E. graveleyi*, Crawford, *Rec. Ind. Mus.* VII, p. 422, 1912. Burma.

Sub-family TRIOZINAE.

*Trioza* Foerster.

*T. gigantea*, Crawford, *Rec. Ind. Mus.* VII, p. 428, 1912. Darjiling, E. Himalayas. Described from one female.

*T. hyalina*, Crawford, *Rec. Ind. Mus.* VII, p. 428, 1912. Simla, W. Himalayas.

*T. analis*, Crawford, *Rec. Ind. Mus.* VII, p. 429, 1912. Simla, W. Himalayas.

*T. urticae*, Linn., Crawford, *Rec. Ind. Mus.* VII, p. 434, 1912. On nettle (*Urtica*). (Same as the European species.) Punjab.

*T. fletcheri*, Crawford, *Rec. Ind. Mus.* VII, p. 434, 1912. On *Gmelina aroborea*, Pusa, Bengal; also in galls on *Trewia*, Coimbatore, S. India. (Y. R. Rao Coll.)

*T. fletcheri minor*, Crawford, n. var., *Rec. Ind. Mus.* VII, p. 434, 1912. On *Terminalia arjuna*, Pusa, Bengal.

*T. jambolanae*, Crawford, *Phil. Journ. Sci.* XII, p. 173, 1917. On *Eugenia jambolana*, Pusa, Bengal.

*Megatrioza* Crawford.

*M. vitiensis*, Kirkaldy, *Proc. Haw. Ent. Soc.* I, p. 193, 1907. On *Eugenia*.

=*Trioza eugeniae*, Crawford *Phil. Journ. Sc.* X, p. 265, 1915. In galls on *Eugenia malaccensis*.

=*M. vitiensis*, Crawford, *Phil. Journ. Sc.* XV, p. 195, 1919. In galls on *Eugenia malaccensis*, Singapore.

*M. eugenioides*, Crawford, *Phil. Journ. Sc.* XV, p. 198, 1919. One specimen from Pusa, Bengal.

= *Trioza eugenioides*, Crawford, *Phil. Journ. Sc.* XII, p. 171, 1917. From Philippines.

*M. hirsuta*, Crawford, *Phil. Journ. Sc.* XV, p. 201, 1919. In galls of *Terminalia tomentosa*, Lonavla, Bombay.

= *Kuwayama hirsuta*, Crawford, *Rec. Ind. Mus.* VII, p. 427, 1912. Igatpuri, Bombay.

Recently recorded in galls on leaves of *Terminalia* in Mundakayam, Travancore. (Ramakrishna Coll.)

*Lourenota* Crawford.

*L.* ? (*Allotrioza*) *minuta*, Crawford, *Rec. Ind. Mus.* VII, p. 433, 1912. Hazaribagh, Bengal.

*Cecidotrioza* Kieffer.

*C. baccarum*, Kieffer, *Marcellia Rev. Cecidol.* VII, p. 159, 1909. In galls of *Symplocos* sp., Kurseong, E. Himalayas.

*Neotrioza* Kieffer.

*N. machili*, Kieffer, *Ann. Soc. Sci. Bruxelles*, XXIX, p. 176, 1905. Bengal. On *Machilus gamblei*.

*Ozotrioza* Kieffer.

*O. styracearum*, Kieff., *Ann. Soc. Sci. Bruxelles*, XXIX, p. 179, 1905. Bengal.

*O. laurinearum*, *Ibid.*, p. 180. Bengal.

NOTE—The exact position of Kieffer's species is not definitely known to the writer ; they are only provisionally put where they are.

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APPENDIX.

List of Literature referring to Indian Zoology (excluding Insecta) received in Calcutta during the year 1924.