

# I. CATALOGUE OF ORIENTAL AND SOUTH ASIATIC NEMOCERA

By E. BRUNETTI.

## INTRODUCTION.

Van Der Wulp's "Catalogue of the Diptera of South Asia" (1896) has been the only one available since its publication, and the want of a more up-to-date work has probably been felt by all workers in this somewhat neglected order of insects. The present effort is, so far as the first suborder goes, an endeavour to fill the breach *pro tempore*, for the study of oriental diptera is very obviously still in its infancy.

The arrangement of families and subfamilies is the one that appears to me most natural, and the nomenclature adopted is that which has, with few exceptions, been used by the leading dipterologists of the past three quarters of a century. The opportunity may here be taken to state my unshakeable adherence to both the present classification and nomenclature. The continual shuffling of names under the guise of priority is a wholly unnecessary handicap to effective study, and the only way to establish finality is to retain the nomenclature which has been found satisfactory by practically all the greatest writers on diptera. Osten Sacken and Verrall openly confessed to "continuity before priority" and I cannot but whole-heartedly agree with them in the best interests of the science itself.

As has been pointed out by others besides myself, Meigen's paper of 1800 (which has been the chief cause of the suggested general overturning of the principal generic and family names throughout the order by the strict priorist) was not binomial, no species being given as representative of the genera described. This fact, therefore, in itself entirely invalidates its acceptance under the customary laws of zoological literature, and the adoption of the names contained in it seems to suggest merely a morbid craving for continual change.

It is not out of place to recall Verrall's view that it is incumbent upon us to accept the methods of the writers of old and the etiquette of their times. Meigen's "1800 paper" as it has been called was wholly preparatory; the author himself almost entirely ignored it in his later works, and his right to rename his genera was never questioned by his *confrères* at the time he wrote.

My own fixed policy is to retain the nomenclature as employed by the principal authors of the last century, Schiner, Loew, Meigen, Macquart, Walker, Osten Sacken, Verrall and their contemporaries, and family and subfamily names should be held in-

violable for ever. Generic and specific names of long standing should be similarly regarded and the strict priorist discouraged in every possible way. Within the last few years I read somewhere that the great majority of American and German zoologists were opposed to the rigid application of the law of priority yet the International Commission appear to be mainly composed of those of the opposite way of thinking.

Some endeavour has been made to ascertain the location of types but for various reasons the results have not been over-satisfactory. My best thanks are due and tendered to those who have assisted me in this matter, notably Mr. Edwards of the British Museum and Mr. F. V. Theobald respecting many of his types in Culicidae.

A number of types (though of which species is by no means certain) of Walker and of Doleschall described from the Malay Peninsula and the East Indian Islands are definitely known to be lost and a certain number of those of Osten Sacken have been for many years, presumed lost also. In cases where the location of the type is not stated in the present Catalogue it simply means that no information has been obtained about it. All types of my own species, unless otherwise stated, were in good condition at the time of description.

#### REFERENCE LIST OF LOCALITIES.

- Albay, a Province in Luzon.
- Angeles, Pampanga, Philippine Is.
- Armageon, east coast, India.
- Aru (Aroe), one of the East Indian Islands.
- Astrolabe Bay, Papua.
- Aurangabad, Hyderabad State.
  
- Badrinath, 10,200 ft., Garhwal Dist., United Provinces, India.
- Bago, 450 ft., Negros Occidental, Philippine Is.
- Bakloh, 4,500—5,000 ft., Punjab.
- Balighai, near Puri, Orissa.
- Bandaong (Bandong), Java.
- Bangalore, 3,000 ft., Mysore State, S. India.
- Barogh, 5,000 ft., Simla Dist., Western Himalayas.
- Bataan, one of the Philippines.
- Batticaloa, district on E. Coast of Ceylon.
- Bayambang, Pangasinan, Philippine Is.
- Benguet, Province in Luzon.
- Berars, Province in the Deccan, India.
- Berhampur, Murshidabad Dist., Bengal.
- Berlinhafen, Papua.
- Bhim Tal, 4,500 ft., Kumaon Div., W. Himalayas.
- Bhogaon, Purneah Dist., Bihar, India.
- Bhowali, 5,700 ft., Kumaon Div., W. Himalayas.
- Buitenzorg, Java.

Bukit Kutu, 3,400 ft., Federated Malay States.  
Bulaco, Mindoro Is., Philippines.

Camerines Sur, Province in Luzon.

Canara, see North Kanara.

Canlaon Volcano, 2,300 ft., Negros Is., Philippines.

Castle Rock, N. Kanara District, Western India.

Cavite, near Manila (Luzon).

Cebu, one of the Philippines.

Chilka Lake, east coast of India.

Chitlong, Nepal.

Chittagong, Eastern Bengal.

Cochin State, South India.

Coconada, East Coast, Madras Presidency.

Coonor, 6,000 ft., Nilgiri Hills, Madras Presidency.

Coromandel, 2,500 ft., east coast of India.

Cottabato, Mindanao, Philippine Is.

Dacca, district in Eastern Bengal.

Damukdia, Damukdia Ghat, on River Ganges (Calcutta-Darjiling route), N. Bengal.

Darjiling, Eastern Himalayas : most of the localities given in this catalogue are from the town and its immediate neighbourhood, about 6,900 ft. The altitude of the district ranges from about 1,000 to 10,000 ft.

Dawna Hills, 2,000—3,000 ft., Amherst Dist., Burma.

Deccan, a general term for Hyderabad State and adjacent districts, India.

Deesa, Cantonment in Bombay Presidency.

Dehra Dun, foot of Mussoorie Hills, W Himalayas.

Depok, Java.

Deslac Island, off coast of Papua.

Dharampur, 5,000 ft., Simla District.

Dharamsala, West Himalayas.

Dindings, Straits Settlement.

Djokjokarta, Java.

Dondra, extreme south of Ceylon.

Dorey, a small island off Papua.

Dum Dum, near (and N. of) Calcutta.

Ellichpur, Berar, Central India.

Ennur, Madras Coast.

Erima, Astrolabe Bay, Papua.

Ernakulam, Cochin.

Etawah, district in United Provinces, India.

Etna Bai, South Papua.

Ferozepore, district and city in the Punjab.

Foo Chow, South China.

Fort McKinley, Luzon, Philippine Is.

Friedrich Wilhelmshafen, Papua.

- Galle, south coast of Ceylon.  
 Gangtok, 6,000 ft., Sikkim State.  
 Garhwal Dist., base of Western Himalayas.  
 Ghoom, 7,500—8,000 ft., above Darjiling.  
 Goa, district on west coast of India (Portuguese).  
 Gombong, Mid-Java.  
 Gonda, N. India, south of Nepal.  
 Gopkuda Island, Chilka Lake, east coast of India.  
 Gorontalo, Malay Archipelago.  
 Guimaris Is., Philippines.  
 Gunung Ungaren, Java.
- Hakgala, 7,000 ft., Central Ceylon.  
 Hajonoy, Luzon.  
 Hoshangabad, Central Provinces, India.  
 Huon Gulf, Papua.
- Jalpaiguri, N. Bengal plains, south of Darjiling.  
 Jeypore, State in Madras Presidency.  
 Jhansi, district in United Provinces, India.  
 Jhaunsa, Tons Valley, Western Himalayas.  
 Jolo, Island and City, Philippines.  
 Jubbelpore (Jubbulpur, etc.), Central Provinces, India.  
 Jugra, 1,000 ft., on solitary hill on Langat Riv., Federated Malay States.
- Kandy, 1,600—1,700 ft., Central Ceylon.  
 Kangra Valley, 4,500—4,800 ft., Punjab.  
 Karachi, city on west coast of India, Sind.  
 Karwar, Coast Town, Bombay Presidency.  
 Kalimpong, 2,000—5,500 ft., Darjiling District.  
 Kasauli, 6,300 ft., Simla District.  
 Katihar, Purnea Dist., Bihar, India.  
 Katmandu, Nepal.  
 Kawkareik, base of Dawna Hills, Tenasserim.  
 Key Islands, Eastern Malay Archipelago.  
 Khasi Hills, Assam, S. of Brahmaputra R.  
 Klang, on Klang Riv., Federated Malay States.  
 Kuala Lumpur, Selangor State, Federated Malay States.  
 Kuching, British N. Borneo.  
 Kufri, 8,000 ft., Simla District, Western Himalayas.  
 Kumaon, Area in Western Himalayas, including Naini Tal and Bhim Tal.  
 Kurseong, about 5,000 ft., below Darjiling.
- Laguna, Province in Luzon.  
 Lahago, Central Lias Island.  
 Lahore, Punjab.  
 Lake Chilka, east coast of India.  
 Laos, Siam.

- Leyte, one of the Philippines.  
Lushai Hills, Assam, on N E. Frontier of India.  
Luzon, the principal island in the Philippines, in which is  
Manila.
- Macassar (Makassar), Celebes.  
Maddathorai, Travancore State, S. India.  
Madhupur, Bengal.  
Madulsima, 2,500–3,000 ft., Central Ceylon.  
Makerian, Punjab.  
Mandalay, district and city in Upper Burma.  
Manila, Luzon.  
Manipur, State in Assam.  
Margherita, Assam.  
Marinduque, one of the Philippines.  
Masbata, one of the Philippines.  
Maskeliya, 4,000 ft., Central Ceylon.  
Matheran, Bombay Presidency, India.  
Matiana, 8,000 ft., Simla District, Western Himalayas.  
Mazbat, Mangaldai Dist., Assam.  
Medan, Sumatra.  
Meenglass, Dooars, Jalpaiguri, Bengal.  
Merauke, South Papua.  
Mergue, Assam.  
Mergui, Tenasserim, Lower Burma.  
Mian Mir, near Lahore (*q.v.*).  
Mindanao, one of the Philippines.  
Mindoro, one of the Philippines.  
Moerah Tewah, Borneo.  
Moradabad, United Provinces, India.  
Moulmein, Amherst District, Tenasserim, Lower Burma.  
Mount Hauseman, Astrolabe Bay, Papua.  
Mount Singalang, Sumatra.  
Mount Siya-Siya; *v.* Canlaon Volcano.  
Mozufferpore, Bihar, India.  
Muina, Papua.  
Mungphu, 5,000 ft., Darjiling District, Eastern Himalayas.  
Murree Hills, W Himalayas, Punjab.  
Mussoorie, 6,000–7,000 ft., Western Himalayas.  
Mysore, State in S. India.
- Nagpur, town and district in Central Provinces, India.  
Naini Tal, 6,500–7,000 ft., Kumaon, W Himalayas.  
Nara Ghat, Nepal, near Indian Frontier.  
Narcondam Island, Bay of Bengal, 80 miles East of North  
Andaman Island.  
Nedumangad, 10 miles N.E. of Trivandrum (*q.v.*).  
Negros (Occidental), one of the Philippines.  
Nicobar Islands, south of the Andamans.  
Nilgiri Hills, about 3,000–8,000 ft., Madras Presidency.

Nongpoh, Assam.

North Kanara Dist., on Goa Frontier, Western Coast of Bombay Presidency.

*N.B.*—South Kanara Dist. is in Madras Presidency.

Ootacamund, Nilgiri Hills, South India, alt. 7,000--8,000 ft.  
Orissa, East Coast of India.

Padang, W. Sumatra.

Pahang, Malay States.

Palawan, one of the Philippines.

Pallode, Travancore State, S. India.

Pampanga, Province in Luzon.

Pangasinan, Province in Luzon.

Pangerango, Java.

Pangkor Haut, Malay Peninsula.

Parang, Mindanao, Philippine Is.

Paresnath Hill (4,800 ft.), Bihar.

Paumonu River, Papua.

Peradeniya, Ceylon, 4 miles from Kandy.

Perak, Federated Malay States.

Phagu, 8,700—9,000 ft., Simla District, Western Himalayas.

Phrapatoon, Siam.

Port Canning, 30 miles S. of Calcutta, on Matla River.

Port Swettenham, Selangor, Federated Malay States.

Preanger, Borneo.

Pundaluoya, 5,000 ft., Mid-Ceylon.

Puri, Orissa Coast.

Purneah, district in Bihar, India.

Pusa (Agricultural Research Institute), Bihar, India.

Quilon, Coast Town, Travancore, S. India.

Rajmahal, N. Bengal.

Rajpore, base of Mussoorie Hills, Western Himalayas.

Rajshahi, North Bengal.

Ranikhet (Ranaghat, Reneghat), 4,000 ft., Kumaon, Western Himalayas.

Raub, Pahang, Federated Malay States.

Rawas, Mid-Sumatra.

Rio Baco, Chicogo, Mindoro, Philippine Is.

Rizal, Province in Luzon.

Samar, one of the Philippines.

Sambalpur, Central Provinces, India.

Selangor, Federated Malay States.

Seleo Berlinhafen, Papua.

Selve, Papua.

Semarang, Java.

Senchal, 8,000 ft., Darjiling District, E. Himalayas.

- Serang Tjimahi, Java.  
 Shahjahanpur, district in United Provinces, India.  
 Shamnagar, Bengal.  
 Shan Hills, Upper Burma.  
 Shaohyling, S. China.  
 Shasthancotta, Travancore State, S. India.  
 Shencotta, Travancore State, S. India.  
 Shillong, 4,900—6,400 ft., Assam.  
 Sibsagar, Assam.  
 Sikhim (Sikkim), State in Eastern Himalayas, often confused  
 with Darjiling District.  
 Siliguri, base of Darjiling Hills, 200 ft.  
 Simbang, Huon Gulf, Papua. [alayas.  
 Simla, 7,000—8,000 ft., town in Simla District, Western Him-  
 Singla, 1,500 ft., Darjiling District.  
 Soekaboemi, City on E. extremity of Java.  
 Soerabaya, East Java.  
 Soeroelangoen, Sumatra.  
 Soondrijal, Nepal.  
 Stephansort, Papua.  
 Sukna, 500 ft., base of Darjiling Hills.  
 Sukwani, Nepal, near Indian Frontier.  
 Sula, Indo-Malay Archipelago.  
 Sureil, 5,000 ft., Darjiling District.  
 Sylhet, district in Assam.
- Taiping, Perak, Federated Malay States. [dency.  
 Talewadi, near Castle Rock, N. Kanara District, Bombay Presi-  
 Tamsui, Formosa.  
 Tandjong, N.E. Sumatra.  
 Tandjong Priok, near Batavia, Java.  
 Tandong, 4,000 ft., Tenasserim.  
 Tayabas, Province in Luzon.  
 Tellschong, Nicobar Islands.  
 Tenmalai, Western Ghats, Travancore State.  
 Thaumaspur, Lower Nepalese Himalayas.  
 Thayetmyo, Upper Burma.  
 "The Gap," Pass between Selangor and Pahang, Federated  
 Malay States.  
 Theog, 8,000 ft., Simla District, Western Himalayas.  
 Tonglu, 10,000 ft., Darjiling Distr.  
 Tosari, E. Java.  
 Travancore, State in S. India.  
 Trivandrum, Capital of Travancore State, S. India.  
 Trincomalee (Hot Wells), 8 miles inland, east coast of Ceylon.
- Ukhrul, 6,400 ft., Manipur State, Assam.  
 Ulu Gombok, 13 miles from Kuala Lumpur, Selangor.  
 Ulu Klang, near Kuala Lumpur.  
 Umling, Assam.

Waigiou, one of the East Indian Islands.  
 Waria River, British Papua.  
 Weligama, south coast of Ceylon.  
 West Lake, Hangchow (Hankow), South China.  
 Wonosobo, Java.

Yomba, Papua.  
 Yunnan, Province in South China on Burmese Frontier.

### Family CECIDOMYIIDAE.

It should be remarked respecting the nomenclature of this family that the alterations suggested by Dr. Karsch, and accepted by Rübsaamen, Keiffer and others, have been vigorously opposed by both Aldrich and Osten Sacken. Aldrich says (Cat. N. Amer. Dipt., 152): "The practical effect of the changes adopted by Karsch, Rübsaamen and Kieffer is to apply the name *Cecidomyia* to the *Diplosis* of Osten Sacken's catalogue, and to divide up his *Cecidomyia* between *Rhabdophaga* and *Dasyneura*. .the adoption of the changed nomenclature will leave few members of the family in the same genera to which Osten Sacken referred them."

Osten Sacken had expounded and, I think, fully substantiated his views (Ent. Month. Mag., 1901, p. 40) and concluded as follows: "What I would propose now would be to restore as far as possible the original concept of *Cecidomyia* of Meigen and Latreille, and to consider the very numerous new genera, since formed at its expense, as *subgenera*."

My own view is identical, but having no practical experience of the family I refrain from inaugurating the change in the present catalogue.

It must also be noted that species of which the adult form is not known are not included as an integral part of the catalogue, but the *names* of such species are given, with a brief reference to the works in which they are described.

### Subfamily CECIDOMYINAE.

#### Sect. LASIOPTERARIAE.

Kieff., Gen. Ins., Fasc. 152, 18, tab. gen.

#### **Lasioptera**, Mg.

Syst. Besch. I, 88 (1818).

Sch., F. Austr. II, 406: Kieff., Gen. Ins., Fasc. 152, 30: Auctt. var.

GENOTYPE, *Cecidomyia albipennis* Mg., according to Coquillett's designation in 1910.

*Diomyza*, Megerle in Mg., Syst. Besch., I, 89 (1818).

GENOTYPE, *Lasioptera picta* Mg., by original designation.



**bryoniae** Sch., Nov. Reise, Dipt., 5, ♂ ♀, pl. i, 2, wing, 3, ant. (1868).

Madras. *Type* in Vienna Museum.

**textor** Kieff., Ann. Soc. Sci. Brux. XXIX, 155, ♀ (1905).

Bengal. *Type* in Kieffer's collection. Kieffer erects two species, *longispatha* and *trilobata* in Marcellia VII, but only the gall and larva of each is described.

**fluitans** Felt, Ent. News, XXVIII, 73, ♂ ♀ (1917).

Coimbatore, 3-xii-15 [Y R. Rao]. From galls in *Panicum fluitans*. "*Type* Cecid. 22779."

### **Prolasioptera, Kieff.**

Bull. Soc. Hist. Nat. Metz XXVIII, 47 (1913).

Kieff., Gen. Ins., Fasc. 152, 33.

GENOTYPE, *Lasioptera niveocincta* Kieff., by original designation.

**javanica** Kieff. and Leeuwen-Reijnvaan, Marcellia IX, 123, ♂ ♀ (*Lasioptera*) (1909).

Java. *Type* in Kieffer's collection.

### Sect. OLIGOTROPHARIAE.

Kieff., Gen. Ins., Fasc. 152, 34, tab. gen.

### **Microperrisia, Kieff.**

Neue Gallmucken Gattungen, Bitsch, 2 (1912).

GENOTYPE unknown to present author.

**pulvinariae** Felt, Jour. N. Yk. Ent. Soc. XXIII, 174 (1915).

Philippine Is.

### **Panteliola, Kieff.**

Bull. Soc. Hist. Nat. Metz XXVIII, 49 (1913).

Kieff., Gen. Ins., Fasc. 152, 46.

GENOTYPE, presumably *P. haasi*, sp. nov., *loc. cit.*

One species only (*P. haasi*, Kieff., *loc. cit.*) has been described of this genus, but the imago is not known. It is from Bengal.

### **Oligotrophus, Latr.**

Hist. Nat. Crust. Ins. XIV, 288 (1805).

Kieff., Gen. Ins., Fasc. 152, 49.

GENOTYPE, *Tipula juniperinus* Linn., by original designation.

No species in the adult has been described from the Orient. The following have been set up on the gall, larva or pupa. *O. indicus* (*nom. nov.* for *indianus* preocc.), *ischaemi*, *mangiferae*, *quadrilobatus*, *saligneus* and *tenuispatha*, all by Kieffer except

*saligneus* for which no author is quoted by that author in the Genera Insectorum.

### Trichoperrisia, Kieff.

Rec. Ind. Mus. IX, 199 (1913).

Kieff., Gen. Ins., Fasc. 152, 65.

GENOTYPE, *T. pipericola* Kieff., by original designation.

**pipericola** Kieff., Rec. Ind. Mus. IX, 199, ♂ (1913).

Peradeniya. The *type* should be in the Indian Museum, but has apparently not been returned by the author.

### Harpomyia, Felt.

Can. Ent. XLVIII, 401 (1916).

GENOTYPE, *H. indica* Felt, sp. nov., *loc. cit.*

**indica** Felt, Can. Ent. XLVIII, 401, ♂ ♀ (1916).

Pusa (presumably), 19-viii-15 [*Bahadur*]; reared from larvae found under the lining of a felt cap.

### Dasyneura, Rond.

Sopra alcuni nuovi generi d'insetti Ditteri,

Parma, p. 17 (*Dasineura*) (1840).

Kieff., Gen. Ins., Fasc. 152, 86.

GENOTYPE, *D. obscura* Rond., by original designation.

**gossypii** Felt, Can. Ent. XLVIII, 29, ♀ (1916).

"*Type* Cecid. 22678." Sent by Mr. T. B. Fletcher, from S. India; ♂ ♀ figured (unnamed) in his "South Indian Insects."

### Sect. ASPHONDYLARIAE.

Kieff., Gen. Ins., Fasc. 152, 87, tab. gen.

### Schizomyia, Kieff.

Ent. Nach. XIV, 183 (1889).

Kieff., Gen. Ins., Fasc. 152, 88.

GENOTYPE, *S. galii* Kieff.

Only two species *S. indica*, Kieff. and *S. incerta*, Kieff. (*Marcellia* VII, 154, 1908) have been described from the Orient, but the imago is not known.

### Asphondylia, Loew.

Dipt. Beitr. IV, 21 (1850).

Sch., F. Austr. II, 395: Kieff., Gen. Ins., Fasc. 152, 91: *Auctt.*

GENOTYPE, *Cecidomyia sarothamni* Lw., according to Coquillett.

*Phyllophaga*, Rond., Dipt. Ital. Prod. I, 199 (1856).

GENOTYPE, *Cecidomyia fusca* Mg., by original designation.

*Cylindrocera*, Lioy, Atti. Istit. Veneto (3) IX, 503 (1863).

**viticola** Kieff. and Leeuwen, Marcellia VIII, 124, ♂ ♀ (1909).  
Java. *Type* in Kieffer's collection.

**sesami** Felt, Can Ent. XLVIII, 31, ♂ ♀ (1916).

South India, vi-12, reared from galls on the "gingelly" plant (*Sesamum indicum*). Adult (unnamed) and gall figured in Fletcher's "South Indian Insects," p. 364.

### **Daphnephila**, Kieff.

Ann. Soc. Sci. Brux. XXIX, 144 (1905).

Kieff., Gen. Ins., Fasc. 152, 96.

GENOTYPE, *D. haasii* Kieff., by original designation.

**haasi** Kieff., Ann. Soc. Sci. Brux. XXIX, 144, ♂ ♀ (1905).  
Bengal. *Types* in Kieffer's collection.

**glandifex**, *id.*, *loc. cit.*, 148, ♀ (1905).

Bengal. *Type* in Kieffer's collection.

**linderæ**, *id.*, *loc. cit.*, 149, ♂ (1905).

Bengal. *Type* in Kieffer's collection.

### Sect. BRACHYNEURAKIAE.

Kieff., Gen. Ins., Fasc. 152, 101, tab. gen.

### **Hallomyia**, Kieff.

Spol. Zeyl. VIII, 25 (1912).

Kieff., Gen. Ins., Fasc. 152, 106.

GENOTYPE, *H. iris* Kieff., by original designation.

**iris** Kieff., Spol. Zeyl. VIII, 25, ♀, figs. 1, 2 (1912).

Peradeniya, 17 and 19-v-10. Three *paratypes* in Indian Museum.

### Sect. DIPLOSARIAE.

### **Eumerosema**, Kieff.

Marcellia, XII, 42 (1913).

Kieff., Gen. Ins., Fasc. 152, 140.

GENOTYPE, *E. dispar* Kieff., by original designation.

**dispar** Kieff., Marcellia, XII, 42, ♂ ♀ (1913).

Formosa. *Type* in Entomological Museum, Berlin-Dahlem.

### **Chrysodiplosis**, Kieff.

Trans. Linn. Soc. Lond. XIV, 318 (1911).

Kieff., Gen. Ins., Fasc. 152, 145.

GENOTYPE, *C. pulchricornis* Kieff., sp. nov., *loc. cit.*, by present designation.

**squamatipes** Kieff., Spol. Zeyl. VIII, 28, ♂ (1912).  
Peradeniya, 20-v-10. *Type* in Indian Museum, unique.

#### Coelodiplosis, Kieff.

Marcellia XII, 43 (1913).

Kieff., Gen. Ins., Fasc. 152, 141.

GENOTYPE, *C. magnipennis* Kieff., by original designation.

**magnipennis** Kieff., Marcellia XII, 43, ♂ ♀ (1913).  
Formosa. *Type* in the Entomological Museum, Berlin-Dahlem.

#### Courteia, Kieff.

Marcellia VIII, 131 (1909).

Kieff., Gen. Ins., Fasc. 152, 153.

GENOTYPE, *C. graminis* Kieff., by original designation.

**graminis** Kieff., Marcellia VIII, 131, ♀ (1909).  
Java. *Type* in Kieffer's collection.

#### Feltodiplosis, Kieff.

Gen. Ins., Fasc. 152, 154 (1913).

*Endaphis*, Felt, Ent. News XXII, 128-224 (1911).

GENOTYPE, *F. abdominalis* Felt, by original designation.

**hirta** Felt, Ent. News XXII, 224 (1911).  
Ceylon. *Type* in Kieffer's collection.

#### Arthrocnodax, Rüb. s.

Wien. Ent. Zeitg. XIV, 189 (1895).

Kieff., Gen. Ins., Fasc. 152, 155.

GENOTYPE, *A. vitis* Rüb. s., sp. nov.

**rutherfordi** Felt, Jour. N. Yk. Ent. Soc. XXIII, 180 (1915).  
Ceylon.

**walkeriana**, *id.*, *loc. cit.*, 181 (1915).  
Ceylon.

#### Plutodiplosis, Kieff.

Spol. Zeyl. VIII, 27 (1912).

Kieff., Gen. Ins., Fasc. 152, 166.

GENOTYPE, *P. magnifica* Kieff., by original designation.

**magnifica** Kieff., Spol. Zeyl. VIII, 27, ♀ (1912).  
Peradeniya, 15-vii-10. The unique type accidentally destroyed.

**Indodiplosis**, Felt.

Can. Ent. XLVIII, 403 (1916).

GENOTYPE, *I mangiferae*, *id.*, *loc. cit.*, sp. nov.**mangiferae** Felt, *loc. cit.*, 403, ♂ ♀ (1916).♂ Bred from galls in mango leaf, Pusa, 13-iii-14, "Case No. 1023"; ♀ from same source, Pusa 26-ix-15 [*T Ram*], "Case No. 100."**Streptodiplosis**, Felt.

Can. Ent. XLVIII, 405 (1916).

GENOTYPE, *S. indica*, *id.*, *loc. cit.*, sp. nov.**indica** Felt, *loc. cit.*, 405 ♂ (1916).Kusti, North Wynaad, S. India, 16-ii [*Bahadur*], on leaves infested by the scale insect *Mytilaspis piperis*, Green.**Dentifibula**, Felt.

Bull. N. Yk. State Mus. CXXIV, 389 (1908).

Kieff., Gen. Ins., Fasc. 152, 174.

GENOTYPE, *Contarinia viburni* Felt, by original designation.**ceylanica** Felt, Jour. N. Yk. Ent. Soc. XXIII, 175 (1915).  
Ceylon.**obtusilobae**, *id.*, *loc. cit.*, 176 (1915).  
Ceylon.**Stictodiplosis**, Kieff.

Bull. Soc. Ent. Fran. LXIII, 28 (1894).

Kieff., Gen. Ins., Fasc. 152, 183.

GENOTYPE, *S. nubilipennis* Kieff., by original designation.**pulcherrima** Kieff., Rec. Ind. Mus. III, 130, fig. 2, wing (*Contarinia*) (1909).Kurseong [*Haas*]. Type in Kieffer's collection.**Procontarinia**, Kieff. & Cecconi.

Marcellia V, 135 (1906).

Kieff., Gen. Ins., Fasc. 152, 183.

GENOTYPE, *P. matteiana* Kieff. & Cecconi, by original designation.**matteiana** Kieff. & Cecconi, Marcellia, V, 135 ♂ ♀ (1906).  
India. Type in Kieffer's collection.**Hypodiplosis**, Kieff.

Gen. Ins., Fasc. 152, 187 (1913).

*Clinodiplosis partim.*, Kieff. & Leeuwen-Reijnuvaan, Marcellia VIII, 129 (1909).GENOTYPE, *Clinodiplosis paederiae* Kieff. & Leeuwen, by original designation.

**paederiae** Kieff & Leeuwen, Marcellia, VIII, 129, ♂ ♀ (1909).  
Java. *Type* in Kieffer's collection.

**Oribremia**, Kieff.

Rec. Ind. Mus. IX, 199 (1913).

Kieff., Gen. Ins., Fasc. 152, 194.

GENOTYPE, *O. multifida* Kieff., by original designation.

**multifida** Kieff., Rec. Ind. Mus. IX, 199, ♂ (1913).

Bhowali, Kumaon, W Himalayas, 5700 ft. [*Imms*]. *Type* apparently mislaid, *not* in Indian Museum.

**Lestodiplosis**, Kieff.

Bull. Soc. Ent. Fran. LXIII, 28 (1894).

Kieff., Gen. Ins., Fasc. 152, 195.

GENOTYPE, *L. alternans* Kieff., by his designation.

*Coprodiplosis*, Kieff., Feuille Jeune Natur. XXIV, 84 (1894).

GENOTYPE, *Diplosis polypori* Lw., by original designation.

**ceylanicus** Kieff., Spol. Zeyl. VIII, 28, ♀ (1912).

Peradeniya. *Type* in Indian Museum.

**Diplecus**, Kieff.

Bull. Soc. Hist. Nat. Metz. XXVIII, 55 (1913).

Kieff., Gen. Ins., Fasc. 152, 201.

GENOTYPE, *Coprodiplosis inconspicuus* Kieff., by original designation.

**inconspicuus** Kieff., Spol. Zeyl. VIII, 29, ♀ (*Coprodiplosis*) (1912).

Peradeniya, 11 and 21-vi-10. No definite *type* set up. Described from five specimens, said by Kieffer to have been taken in May, but the two in the Indian Museum forming part of the set of five are dated June. These become *paratypes*.

**Diadiplosis**, Felt.

Jour. N. Yk. Ent. Soc. XIX, 54 (1911).

GENOTYPE, *D. coccidivora*, *id.*, by original designation.

**coccidivora** Felt, Entom. XLVII, 86 (1914).

Ceylon.

**smithii** Felt, Jour. N. Yk. Ent. Soc. XXIII, 178 (1915).

Philippine Is.

**Dyodiplosis**, Rubs.

Zeits. wiss Insektenbiol. VIII, 49 (1912).

Kieff., Gen. Ins., Fasc. 152, 205.

GENOTYPE, *D. arenariae* Rubs., by original designation.

**generosi** Felt, Jour. N. Yk. Ent. Soc. XXIII, 183 (1915).  
Ceylon.

**Pseudhormomyia**, Kieff.

Synop. d. Cecid. d'Eur. et d'Alg. 57 (1898).

GENOTYPE, *P. granifex* Kieff., sp. nov., *loc. cit.*

*Amaurosiphon*, Rubs., Zeits. wiss. Insek., VII, 391 (1911).

GENOTYPE, *A. caricis* Rubs., sp. nov., by original designation.

**fluviatilis** Felt, Ent. News, XXVIII, 74, ♂ ♀ (1917).

Coimbatore, 29-vii-16. From galls on *Panicum fluitans* [Y. R. Rao]. "Type Cecid. a2777."

**cornea** Felt, *loc. cit.*, 76, ♂ ♀ (1917).

Coimbatore, 2-viii-16 [Rao]. From galls on *Ischaemum ciliare*.  
"Type Cecid. a2778."

**Lowiola**, Kieff.

Miscell. Ent. V, 5 (1896).

Kieff., Gen. Ins., Fasc. 152, 206.

GENOTYPE, *L. centaureae*, according to Kieffer.

**costata** Felt, Jour. N. Yk. Ent. Soc. XXIII, 182 (1915).  
Ceylon.

**Orseoliella**, Kieff.

Marcellia XI, 231 (1912).

Kieff., Gen. Ins., Fasc. 152, 152.

GENOTYPE, *O. javanica* Kieff., by original designation.

**javanica** Kieff., Marcellia VIII, 125, ♂ ♀ (*Orseolia*) (1909).

Java. Type in Kieffer's collection.

**Cecidomyia**, Mg.

Illig. Mag. II, 261 (1803).

Sch., F. Austr. II, 369 *et* *Auctt.*: Kieff., Gen. Ins., Fasc. 152, 211.

GENOTYPE, *Tipula pini* DeGeer, according to Coquillet, and Kieffer.

*Diplosis*, Loew, Dipt. Beitr. IV, 20 (1850).

*Cryptodiplosis*, Kieff., Bull. Soc. Ent. Fran: LXIV, 194 (1895).

GENOTYPE, *Tipula pini*, DeGeer, by original designation.

**deferenda** Walk., Proc. Linn. Soc. Lond. I, 105, ♀ (1857).

Sarawak. Type apparently lost; not in British Museum.

**Pachydiplosis**, Kieff.

Bull. Soc. Hist. Nat. Metz, XXVIII, 108 (1913).

Kieff., Gen. Ins., Fasc. 152, 224.

GENOTYPE, *P. apricans* Kieff., by original designation.

- oryzae** Wood-Mason, Amer. Naturalist, p. 149 (*Cecidomyia*) (1881):  
 Y. R. Rao, J. Asiat. Soc. Beng. n.s. XIII, p. clxxxiv (1917).  
 Bengal; living in "paddy," causing the disease known as  
 "silvershoots." *Type* untraceable, not in Indian Museum.
- graminicola** Kieff., Marcellia, VIII, 127, ♂ ♀ (*Clinodiplosis*) (1909).  
 Java. *Type* in Kieffer's collection.
- ceylanica** Kieff., Spol. Zeyl. VIII, 26, ♀, fig. 3, tip of antenna  
 (*Clinodiplosis*) (1912).  
 Peradeniya, 13-v-10; 2, 9, and 25-vi-10; Pusa, 19-vi-11, at  
 light [Howlett]. *Paratypes* in Indian Museum; no type erected.

#### **Clinodiplosis, Kieff.**

Feuille Jeunes Natur. Paris, XXIV, 121 (1894).  
 Kieff., Gen. Ins., Fasc. 152, 237.  
 GENOTYPE, *C. cilicrus* Kieff., by original designation.

No species in the adult stage is recorded from the Orient, but Kieffer has described the gall and the larva of three, *artemisiarum*, *cellularis* and *nodifex*, in Marcellia VII, from the East Indies.

#### **Androdiplosis, Felt.<sup>1</sup>**

Jour. N. Yk. Ent. Soc. XXIII, 182 (1915).  
 GENOTYPE, *F. coccidivora*, *id.*, *loc. cit.*, sp. nov.

**coccidivora** Felt, *loc. cit.*, 183 (1915).  
 Ceylon.

#### **Mycodiplosis, Rubs.**

Ent. Nachr. XXI, 186 (1895).  
 GENOTYPE, *Diplosis coniophaga* Winn., by original designation.

**simulacri** Felt, Jour. N. Yk. Ent. Soc. XXIII, 177 (1915).  
 Philippine Is.

#### **Xiphodiplosis, Felt.<sup>1</sup>**

Jour. N. Yk. Ent. Soc. XXIII, 180 (1915).  
 GENOTYPE, *X. fulva*, *id.*, *loc. cit.*, sp. nov.

**fulva** Felt, *loc. cit.*, 180 (1915).  
 Ceylon.

#### Sect. PORRICONDYLARIAE.

Kieff., Gen. Ins., Fasc. 152, 258, tab. gen.

#### **Dicroneurus, Kieff.**

Ent. Nachr. XXI, 122 (1895).  
 Kieff., Gen. Ins., Fasc. 152, 270.

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<sup>1</sup> The work in which these genera are described is inaccessible in India, and it is therefore impossible to place them in their exact systematic position.



GENOTYPE, *Epidosis lineatus* Kieff., by original designation.

**indicus** Kieff., Rec. Ind. Mus. IX, 200, ♂ (*Epidosis*) (1913).

Kalighat, 6000 ft. *Type*, apparently mislaid, not in Indian Museum.

**Misocosmus**, Kieff.

Bull. Soc. Hist. Nat. Metz, XXVIII, 55 (1913).

Kieff., Gen. Ins., Fasc. 152, 276.

GENOTYPE, *Epidosis ceylanicus* Kieff., by original designation.

**ceylanicus** Kieff., Spol. Zeyl. VIII, 29, ♀ (*Epidosis*) (1912).

Peradeniya, 19-v-10. *Type* in Indian Museum.

**Colpodia**, Winn.

Linn. Ent. VIII, 188 (1853).

Kieff., Gen. Ins., Fasc. 152, 268.

GENOTYPE, *C. angustipennis* Winn., sp. nov., *loc. cit.*

**fletcheri** Felt, Can. Ent. XLVIII, 400, ♂ (1916).

Pusa, a unique ♂, 1-1-16. [*Bahadur*]. "*Type* Cecid. 1696."

No location of type is stated.

**Epidosis**, Lw.

Dipt. Beit. IV, 21 (1850).

GENOTYPE, *E. fragilis* Lw., sp. nov., *loc. cit.*, p. 38, the 1st species by present designation.

**indicus** Kieff., Rec. Ind. Mus., IX, 200 (1913).

India.

Subfamily *LESTREMINAE*.<sup>1</sup>

**Peromyia**, Kieff.

Bull. Soc. Ent. Fran. 63 (1894).

Kieff., Gen. Ins., Fasc. 152, 292.

GENOTYPE, *P. leveillei* Kieff., by original designation.

**bengalensis** Kieff., Ann. Soc. Sci. Brux. XXIX, 158, ♂, fig. 4, wing (1905).

Bengal. *Type* in Kieffer's collection.

**Lestremia**, Macq.

Recueil Soc. Agric. Lille, 173 (1826).

Sch., F. Austr. II, 413 *et* Auctt.

Kieff., Gen. Ins., Fasc. 152, 307.

GENOTYPE, *Lestremia cinerea* Mcq., according to Coquillett.

*Cecidogona*, Lw., Stett. Ent. Zeit. V, 324 (1844).

GENOTYPE, *Lestremia carnea* Lw., by original designation.

<sup>1</sup> For table of genera, see Kieff., Gen. Ins., Fasc. 152, 305.

*Furcinerva*, Rond., Nuovi Ann. Soc. Nat. Bologna (2) VI, 369 (1846).<sup>1</sup>

*Mimosciara*, *id.*, Mem. Ia. ditt. Ital. 25 (1840).

*Molobraea*, *id.*, Atti. Soc. Ital. Sci. Nat. Milano, II, 287 (1860).

*Yposataea*, *id.*, Dipt. Ital. Prod. I, 198 (1856).

*indica* Kieff., Rec. Ind. Mus. III, 129, fig. 1, wing (1909).

Calcutta [*Annandale*]; Kurseong, 26-iii-10 [*Gravely*].

*ceylanica* Kieff., Spol. Zeyl. VIII, 29, ♀ (1912).

Peradeniya, 13-v-10, at light. *Type* in Indian Museum, unique.

### Family MYCETOPHILIDAE.

#### Subfamily SCIARINAE.

#### Sciara, Mg.

Illig. Mag. II, 263 (1803).

Sch., Fauna Austr. II, 417: Auctt. var.

Brun., Fauna Brit. Ind., Dipt., 120, figs. (p. 121), pl. ii, 15—17, wings.

GENOTYPE, *S. thomae* L.<sup>2</sup>

*Molobrus*, Latr., Hist. Nat. Crust. Ins. XIV, 288 (1805).

GENOTYPE, *Tipula thomae* L., as the "Tipule de Thomas."

*Planetes*, Walk., Ent. Month. Mag. III, 178 (1836).

GENOTYPE, *P. extremus*, *id.*, *loc. cit.*, sp. nov.

*Planatella*, Westw., Synop. gen. Brit. Ins., 126 (1840).

*indica* Walk.,<sup>3</sup> Ins. Saunds. Dipt. V, 419 (1856).

Brun., Fauna Brit. Ind. I, 130, ♀

East India; Darjiling, 5-viii-09 [*Paiva*]; Kurseong, 13—16-vii-07; common, 14-viii-09 [*Paiva*]; Siliguri, 18—20-vii-07; Phagu, 21-v-16; Bhim Tal, 19—22-ix-06 [*Annandale*]; Senchal, v-13. *Type* in British Museum in good condition.

*pusilla* Dol., Nat. Tijd. Ned. Ind. X, 407, pl. iv, 4 (*Scatopse*) (1856).

Java. *Type*, location unknown, apparently lost.

*laticornis* Walk., Proc. Linn. Soc. Lond. I, 105, ♂ ♀ (1857).

Sarawak. *Type* in British Museum, damaged but recognizable.

<sup>1</sup> *Furcinerva* was founded on the union of *Zygoneura* Mg., *Lestremia* Macq., *Mimosciara* Rond. and *Catocha* Hall. In his Prodrôme vol. I, Rondani admits *Catocha* as valid, ignores *Furcinerva* and erects *Yposataea* for the three other genera without any type species. Coquillett proposed *Mimosciara molobrina* Rond., which was the genotype of this latter genus.

<sup>2</sup> *S. thomae* L., the common European species, was recorded from Sumatra by Van der Wulp (Dipt. Sum. Exped. 7, and Cat. Dipt. S. Asia, 1), but in the latter work he says that Rübsaamen (Berl. Ent. Zeits. XXXIX, 32) doubts the identity of the species. I therefore refrain from including it in the present catalogue.

<sup>3</sup> *S. indica* Walk. is a good and conspicuous species, but his others are mostly unrecognizable from the descriptions, except perhaps *filipes*.

**solita** Walk., *loc. cit.*, I, 105, ♀ (1857).

Sarawak. *Type* in British Museum, in fair condition.

**femoralis** Dol., *Nat. Tijd. Ned. Ind.* XVII, 78 (1858).

Amboina. *Type*, location unknown, apparently lost.

**selecta** Walk., *Proc. Linn. Soc. Lond.* III, 77, ♂ (1859).

Aroe. *Type* in British Museum, in good condition.

**longipes**, *id.*, *loc. cit.*, V, 263 (1861).

Tondano. *Type* in British Museum, in fair condition (abdomen missing).

**ponderosa**, *id.*, *loc. cit.*, VII, 230, ♀ (1864).

North Ceram; Mimika River, Dutch Papua, viii-1910. *Type* in British Museum, in good condition.

**varipes**, *id.*, *loc. cit.*, VIII, 102, ♀ (1865).

Papua. *Type* in British Museum (no abdomen).

**filipes**, *id.*, *loc. cit.*, VIII, 102 (1865).

Papua. *Type* in British Museum, in fair condition but without antennae.

Both Walker and Van der Wulp state that this species represents a new genus, but the type (and only) specimen is too damaged to diagnose its characters.

**rufithorax** Wulp, *Mid. Sum. Exped.*, *Dipt.* 6, pl. i, 1, full insect (1881): Rübs., *Berl. Ent. Zeits.* XXXIX, 39: Meij., *Tijd. v. Ent. L.* 200, pl. v, 1: Brun., *Fauna Brit. Ind.*, *Dipt.* I, 128, ♂ ♀, pl. iii, 15, ♂ genitalia.

Probably widely distributed in the East. Sumatra, Java (var. locs.), Ceylon, India (many localities, *vide* Brun., *Fauna*), Assam, Burma, and probably South China and other parts. Recorded during the greater part of the year. Occurs as far north as Simla, x-08 [Howlett]. *Type* in Leyden Museum, *cotype* in Amsterdam Museum.

**sulcata** Wulp, *Tijd. v. Ent.* XXX, 177, pl. xi, 12 (1887).

Java. *Type* probably lost, originally in Van der Wulp's collection.

**pruinosa** Rübs., *Berl. Ent. Zeits.* XXXIX, 33, pl. i, 2 (1894).

Borneo. *Type* in Berlin Museum.

**rotunda**, *id.*, *loc. cit.*, 34 (1894).

Himalayas. *Type* in Berlin Museum.

**singhalensis**, *id.*, *loc. cit.*, 35 (1894).

Ceylon. *Type* in Berlin Museum.

**trilineata** Brun., *Fauna Brit. Ind.*, 126, ♀ (1912).

Darjiling, 8-viii-09, *type*; 6-viii-09 [both Paiva]. *Type* in Indian Museum.

**trifasciata**, *id.*, *loc. cit.*, 126, ♀ (1912).

Darjiling, 10—16-x-05 [Brunetti]. *Type*, unique, in Brunetti collection.

**opposita**, *id.*, *loc. cit.*, 127, ♂ (1912).

Kurseong, 3-vii-08. *Type*, unique, in Indian Museum.

- distinguenda**, *id.*, *loc. cit.*, 127, ♂ (1912).  
Darjiling (7000 ft.), 12-viii-09 [*Jenkins*]. *Type*, unique, in Indian Museum.
- rufoabdominalis**, *id.*, *loc. cit.*, 129, ♀ (1912).  
Ukhrul, Manipur (6400 ft.) [*Pettigrew*]. *Type*, unique, in Indian Museum.
- luteiventris**, *id.*, *loc. cit.*, 129, ♀ (1912).  
Phagu, 12-v-09 [*Annandale*]. *Type*, unique, in Indian Museum.
- flammiventris**, *id.*, *loc. cit.*, 129, ♀ (1912).  
Darjiling, 6-viii-09 [*Paiva*]. *Type*, unique, in Indian Museum.
- flavofemorata**, *id.*, *loc. cit.*, 130, ♂ (1912).  
Kurseong, 8-vii-08; Simla, x-08 [*Howlett*]. *Type* in Indian Museum.
- nigripennis**, *id.*, *loc. cit.*, 131, ♂ ♀ (1912).  
Darjiling, 26-v-10, *type* ♂; 29-ix-08; 28-v-10 [all *Brunetti*]; Kurseong, 13-viii-09 [*Paiva*]; Bhim Tal, 19—22-ix-06 [*Annandale*]; Simla, x-08 [*Howlett*]; Pashok, Sikkim (2000 ft.), 5-ix-09; Ukhrul, Manipur; Shillong; Pattipola, Ceylon. *Types* in Indian Museum.  
Some ♀ ♀ taken by Mr. C. W. Beebe at Kuching, Sarawak, 23-vi-10 and 4-vii-10 are probably a small variety of this species.
- diversipes**, *id.*, *loc. cit.*, 131, ♂ ♀ (1912).  
Darjiling, 10-viii-09 [*Paiva*]; Ghoom (above Darjiling, 7500 ft.), 18-ix-08; Kurseong, 13—16-vii-07; Siliguri, 18—25-vii-07. *Type* ♂ ♀ in Indian Museum.
- fratercula**, *id.*, *loc. cit.*, 132, ♀ (1912).  
Kurseong, 7-ix-09 [*Annandale*]; Bhim Tal, 22—27-ix-06 [*Annandale*]. *Type* in Indian Museum.
- exacta**, *id.*, *loc. cit.*, 132, ♀ (1912).  
Darjiling, 4—7-viii-09, *type* [*Paiva*]; Kurseong, 7-ix-09; 4—8-vii-08; Ghoom (above Darjiling), 19-ix-08; Siliguri, 18—20-vii-07; Bhowali, Kumaon, vii-09 [*Imms*]; Ukhrul, Manipur; all in the Indian Museum. In my collection from Darjiling, 10—16-x-05 and Shanghai, 9-v-06 [both *Brunetti*], and from Ohiya, Ceylon [*Green*]. *Type* in Indian Museum.
- longinervis**, *id.*, *loc. cit.*, 133, ♀ (1912).  
Siliguri, 18—20-vii-07, *type*; Kurseong, x-1910 [*D'Abreu*]; in the Pusa collection from Mussoorie, viii-1906. *Type* in Indian Museum.
- flavicollis**, *id.*, *loc. cit.*, 134, ♂ ♀ (1912).  
Siliguri, 18—20-vii-07, *type* ♂; Darjiling, 1-x-08, *type* ♀ [*Brunetti*]; 26—29-vi-10; Kurseong, 29-vi-10 [both *Annandale*]. *Types* in Indian Museum.
- orientalis**, *id.*, *loc. cit.*, 135, ♂ ♀ (1912).

Darjiling; Kurseong; Siliguri; Bhim Tal; Mandalay; Ukhrul; Dibrugarh, 17—19-xi-11; Rotung, N.E. Ind. Frontier, 24—25-xii-11 [both *Kemp*]; Calcutta (common Jan. to May and July to Sept.); Lucknow; Bijnor District; Ganges Delta; Travancore State (var. locs.); Ceylon; Dawna Hills; Lower Burma. Occurs, speaking generally, nearly all the year round in many localities. *Types* in Indian Museum, *cotypes* in my collection.

**fascipennis**, *id.*, *loc. cit.*, 136, ♀ (1912).

Darjiling, xi-1910 [*D'Abreu*]. *Type*, unique, in Indian Museum.

**sexsetosa**, *id.*, *loc. cit.*, 137 ♀ (1912).

Darjiling, 20-ix-08, *type* [*Brunetti*]; 6-viii-09 [*Paiva*]; Pashok, Sikkim (2000 ft.), 5-ix-09. *Type* in Indian Museum.

**quadrisetosa**, *id.*, *loc. cit.*, 137, ♂ (1912).

Darjiling, 6-viii-09 [*Paiva*]. *Type* in Indian Museum.

**pallescens**, *id.*, *loc. cit.*, 137 (sex uncertain) (1912).

Khayon (or "Farm") caves, 9 miles from Moulmein, Tenasserim, 7-iii-08, taken in the darkest part of the cavern by Dr. Annandale, in company with *Crysithyris speloea*, the only known moth adapted for a cavernicolous existence. *Type*, unique, in Indian Museum.

**fulvescens**, *id.*, *loc. cit.*, 138, ♀ (1912).

Rajshai, East Bengal, 1—6-ii-07 [*Annandale*]. *Type*, unique, in Indian Museum, possibly identical with *pallescens*.

**setilineata**, *id.*, *loc. cit.*, 138, ♂ ♀ (1912).

Simla, 10-v-09, *type* ♂ [*Annandale*]; Darjiling, 6-viii-09, *type* ♀ [*Paiva*]. *Types* in Indian Museum.

**latelineata**, *id.*, *loc. cit.*, 139, ♂ (1912).

Dawna Hills, Tenasserim (on western slopes, 2000—3000 ft.), 2—3-iii-08 [*Annandale*]. *Type*, unique, in Indian Museum.

**radicum**, *id.*, *loc. cit.*, 139, ♂ ♀ (1912).

Calcutta, 21-i-10 to 24-ii-10 [*Annandale*]. *Types* in Indian Museum; *cotypes* in my collection.

The larva lives on lily bulbs and kindred plants.

**impostor**, *id.*, *loc. cit.*, 140, ♂ (1912).

Darjiling, 1-x-08, *type*, 2-x-08, 10—16-x-05 [all *Brunetti*]. *Type* in Indian Museum, *cotype* in my collection

**segmenticornis**, *id.*, *loc. cit.*, 141, ♂ (1912).

Bindukhera (Naini Tal Distr., plains), 13-iv-09. *Type* in Indian Museum, unique.

**compacta**, *id.*, *loc. cit.*, 141, ♀ (1912).

Gangtok, Sikkim (6150 ft.), 8-ix-09, *type*; Butal, Nepal, 12-ii-08. *Type* in Indian Museum.

**inconspicua**, *id.*, *loc. cit.*, 142, ♀ (1912).

Sylhet, 14-i-05 [*Hall*]. *Type*, unique, in Indian Museum.

**hirtilineata**, *id.*, *loc. cit.*, 142, ♂ ♀ (1912).

Phagu, 12-v-09, *type* ♂, 12-v-09; Simla, 10-v-09; Darjiling, 6-viii-09; Kurseong, 4-vii-08 [*Annandale* and others]. *Types* in Indian Museum.

**niveiapicalis**, *id.*, *loc. cit.*, 143, ♀ (1912).

Ukhrul, Manipur (6400 ft.) [*Pettigrew*]. *Type* in Indian Museum.

**longipennis**, *id.*, *loc. cit.*, 143, ♂ ♀ (1912).

Below Simla, 6-v-10, *type* ♂ [*Annandale*]; Darjiling, 25-v-10, *type* ♀ [*Brunetti*]; Kurseong, 4-vii-08; 26—27-vi-10 [*Annandale*]; Tonglu, Darjiling (10,000 ft.), 22-iv-10 [*Beebe*]. *Type* in Indian Museum.

**flaviseta**, *id.*, *loc. cit.*, 144, ♀ (1912).

Simla, 10-v-09 [*Annandale*]. *Type*, unique, in Indian Museum.

**nitidithorax**, *id.*, *loc. cit.*, 145, ♂ (1912).

Kalighat (Garhwal Distr., 6000 ft., India), 4-vi-10 [*Imms*]. *Type*, unique, in Indian Museum.

**longitudinalis**, *id.*, *loc. cit.*, 145, ♂ ♀ (1912).

Kurseong, 8-vii-08, *type* ♂ [*Annandale*]; Darjiling, 28-v-10, *type* ♀ [*Brunetti*]; Tonglu, Darjiling, 10,000 ft., 22-iv-10 [*Beebe*]. *Types* in Indian Museum.

**ruficoxa**, *id.*, *loc. cit.*, 146, ♀ (1912).

Kurseong, 25-vi-10 [*Annandale*]. *Type*, unique, in Indian Museum.

**flavipleura**, *id.*, *loc. cit.*, 146, ♂ ♀ (1912).

Darjiling, 2-x-08, *type* ♂ [*Brunetti*]; 6-viii-09, *type* ♀ [*Paiva*]; Kurseong, 3-ix-09 [*Annandale*]. *Types* in Indian Museum.

**evanescens**, *id.*, *loc. cit.*, 147, ♂ ♀ (1912).

Simla, 9-v-09, *type* ♂; Calcutta, 25-ii-09 [both *Annandale*]; Darjiling, 6-viii-09 [*Paiva*]; Peradeniya, 14-vii-10, 7-viii-10. *Types* in Indian Museum.

**parallela**, *id.*, *loc. cit.*, 147, ♂ ♀ (1912).

Simla, 9-v-09, *type* ♂ [*Annandale*]; Darjiling, 2-x-08, *type* ♀, and 26-v-10 [*Brunetti*]. *Types* in Indian Museum.

**turrita** de Meij., *Bijd. tot Dierk*, XIX, 45, ♀, pl. i, 1, head, 2, wing, (1913).

Ceram, ii. *Type*, unique, in (?) Amsterdam Museum.

**heteroptera** de Meij., *Tijd. v. Ent.* LVI, 318, ♂ ♀; pl. xv, 1, wing; 1a, genitalia ♂ (1913).

Gedeh crater, Java [*Roepke*]. *Type* in Amsterdam Museum.

**fuscolimbata** Ender., *Arch. Naturg.* LXXVII, Supp. 3, 150 [*Lycoria*] (1912).

Sumatra.

**sumatrana**, *id.*, *loc. cit.*, 151 (*Lycoria*) (1912).

**bispinosa** Pettey, *Phil. J. Sci.* XIII, D, 215, ♂, pl. i, 2, ♂ clasper, 4, wing (1918).

Los Banos, Luzon, 3-iii-17. Unique *type* in Cornell University collection.

**uichancoi**, *id.*, *loc. cit.*, 215, ♂ ♀, pl. i, 1, ♂ clasper, 3, wing (1918).

Mt. Maquiling, Luzon, 28-viii-17. *Types* in Cornell University collection.

#### Phorodonta, Coq.

Proc. U.S. Mus. XXXVIII, 589, nom. nov. for *Odontonyx*, Rübs., preocc. (1910).

*Odontonyx*, Rübs., Berl. Ent. Zeits. XXXIX, 19 and 25 (1894).

GENOTYPE, *O. fruhstorferi* Rübs., by original designation.

*Odontonyx* preoccupied by Stephens in Coleoptera (1828), and used again by Guerin in 1843.

**fruhstorferi** Rübs., Berl. Ent. Zeits. XXXIX, 25, fig. 3, pl. iii, 13, 23 (1894).

Java. *Type* in Berlin Museum.

#### Psilomegalosphys, Enderl.

Archiv f. Naturges. LXXVII, 137 (1911).

GENOTYPE, *P. xanthogaster* Enderl., by original designation.

**xanthogaster** Enderl., *loc. cit.*, 137, ♀, pl. i, 6, wing (1911).

Sumatra. *Type* in Stettin Zoolog. Museum.

#### Trichomegalosphys, Enderl.

Archiv f. Naturges. LXXVII, 136 (1911).

GENOTYPE, *T. funesta* Enderl., by original designation.

**funesta** Enderl., *loc. cit.*, 136, ♀ (1911).

Soekaranda (Sumatra). *Type* in Stettin Zoolog. Museum.

#### Scythropochroa, Enderl.

Archiv f. Naturges. LXXVII, 138 (1911).

GENOTYPE, *S. latefurcata* Enderl., by original designation.

**velata** Enderl., *loc. cit.*, 139, ♀ (1911).

Soekaranda (Sumatra). *Type*, unique, in Stettin Zoological Museum.

#### Zygoneura, Mg.

Syst. Besch. VI, 304 (1830).

GENOTYPE, *Z. sciarina* Mg.

**remota** deMeij., Nova Guinea Res. IX, 305, ♂ (1913).

Riverkamp, ii. *Type* in Amsterdam Museum.

Subfamily *MACROCERINAE*.**Macrocera**, Mg.

Illig Mag. II, 261 (1803).

Sch., F. Austr. II, 430 : *Auctt. var.* : Johan., Gen. Ins., Fasc. 93, 28 : Brun., Fauna Brit. Ind., 49.GENOTYPE, *M. lutea* Mg., by designation of Curtis, Brit. Entom., 637 (1837).*Tipula longicornis* Mg., has been proposed as the type-species, but the identification seems doubtful.*Geneja*, Lioy, Atti Istit. Ven. (3) IX, 229 (1863).<sup>1</sup>GENOTYPE, *Macrocera fasciata* Mg., by Coquillett's designation.? *Macroura*, Berendt, Organ. Reste Bernstein I, 51, nom. nud. (1845).**ornata** Brun., Fauna Brit. Ind., 51, ♂ ♀, pl. i, 1, wing; pl. iii, ♂ genitalia (1912).Darjiling, 28-v-10, type ♂ [*Brunetti*]; Kurseong, 15-viii-09, type ♀ [*Jenkins*]. Types in Indian Museum.**alternata**, *id.*, *loc. cit.*, 52, ♂ ♀, pl. i, 2, wing (1912): *Id.*, Rec. Ind. Mus. XIII, 61.Naini Tal, type ♂, 10-vi-09; Mussoorie, vi-09, type ♀ [*Brunetti*]; Simla, x-08 [*Howlett*]. Type ♂ in Indian Museum, type ♀ in my collection.**flavicosta**, *id.*, *loc. cit.*, 53, ♀, pl. i, 3, wing (1912).

Exact locality uncertain, probably India, but certainly the Orient. Type in my collection.

**brunnea**, *id.*, *loc. cit.*, 53, ♀, pl. i, 5, wing (1912).Phagu, 12-v-09 [*Annandale*]. Type in Indian Museum.**elegans**, *id.*, *loc. cit.*, 54, ♂, pl. i, 4, wing (1912).Darjiling, 26-v-10 [*Brunetti*]. Type in Indian Museum, unique.**inconspicua**, *id.*, *loc. cit.*, 54, ♂ (1912).Naini Tal Distr., 28-v-09; Simla, x-08 [*Howlett*]. Type in Indian Museum, unique.**ferruginea**, *id.*, *loc. cit.*, 55, ♀ (1912).Bhim Tal, 22—27-ix-06 [*Annandale*]. Type in Indian Museum, unique.**fryeri** Edw., Ann. Mag. Nat. Hist. (8) XII, 200, ♂ (1913).

Peradeniya, ix-1911.

Subfamily *CEROPLATINAE*.**Ceroplatus**, Bosc.

Act. Soc. Hist. Nat. Paris I, i, 42 (1792).

Sch., F. Austr. II, 433 : *Auctt. var.* : Johan., Gen. Ins., Fasc. 93, 18 : Brun., Fauna Brit. Ind., 56.

<sup>1</sup> A *nom. nov.* for *Macrocera* Mg., under the plea of the latter being preoccupied by Spinola in Hymenoptera. I cannot trace any such preoccupation.



GENOTYPE, *Tipula lineata* F., designated by Rondani as *Platyura laticornis* Mg.

**quadripunctatus** Brun., Fauna Brit. Ind. 57, ♀, pl. i, 6, wing; pl. iii, 2, abdomen (1912).

Calcutta, 27-vii-09 [*Annandale*]. *Type*, unique, in Ind. Mus.

If *Cerotelion* Rond., Dipt. Ital. Prod. I, 191 (1856), is admitted as generically distinct from *Ceroplatus*, this species will come in it.

### **Rhynchoplatyura**, de Meij.

Tijd. v. Ent. LVIII, Supp. 3 (1915).

GENOTYPE, *R. longirostris*, *id.*, sp. nov., by original designation.

**longirostris** de Meij., *loc. cit.*, 3 (1915).

Simalur Is., Sumatra.

### **Platyura**, Mg.

Illig. Mag. II, 264 (no species) (1803).

Mg., Klass, 101 (1804).

Sch., F. Aust. II, 435: *Auctt.*: Johan., Gen. Ins., Fasc. 93, 20: Brun., Fauna Brit. Ind., 58.

GENOTYPE, *Platyura fasciata* Mg., by Zetterstedt's designation.

*Orfelia*, A. Costa, Il Giambatt. Vico, II, 448 (1857).

GENOTYPE, unknown to present author.

*Isoneuromyia*, Brun., Fauna Brit. Ind., 66 (1912).<sup>1</sup>

GENOTYPE, *I annandalei*, *id.*, sp. nov., *loc. cit.*

**venusta** Walk., Ins. Saund. Dipt. pt. V, 421 (1856).

Brun., Fauna Brit. Ind., 63, ♀

Bareilly, 15—22-iii-07; Pusa, 16-iv-07, iv-08, v-07; Chapra, Bengal; Chittagong, 14-vii-08 [*Hall*]. *Type*, location unknown.

**grandis** Brun., Fauna Brit. Ind., 60, ♂ ♀, pl. i, 7, wing (1912).

Mussoorie, 22-vi-05, *type* ♂ ♀, *in cop.*, 26-vi-05 [both *Brunetti*].

*Types* in my collection.

**suffusinervis**, *id.*, *loc. cit.*, 60, ♂ ♀, pl. i, 9, wing (1912).

Sylhet, 10-iv-05, *type* ♂ ♀, *in cop.* [*Hall*]. *Types*, unique, in Indian Museum.

**apicipennis**, *id.*, *loc. cit.*, 61, ♀, pl. i, 8, wing, pl. iii, 4, head (1912).

Naini Tal, 2-vi-09. *Type*, unique, in Indian Museum.

**affinis**, *id.*, *loc. cit.*, 62, ♀ (1912).

Darjiling, 25-v-10 [*Brunetti*]. *Type*, unique, in Ind. Mus.

**flaviventris**, *id.*, *loc. cit.*, 62, ♀ (1912).

Darjiling, 23-ix-08 [*Brunetti*]. *Type*, unique, in Ind. Mus.

**vicina**, *id.*, *loc. cit.*, 63, ♀ (1912).

Naini Tal, 3-vi-09. *Type* in Indian Museum.

<sup>1</sup> I have accepted Edwards' opinion (in litt.) as to the synonymy; Rec. Ind. Mus. XIII, 61.

**octosegmentata**, *id.*, *loc. cit.*, 64, ♂ (1912).

Allahabad, 9-ix-09 [*Imms*]. *Type*, unique, in Ind. Mus.

**ruficornis**, *id.*, *loc. cit.*, 64, ♀ (1912).

Sylhet, 2-ii-45, 30-ii-04; Naini Tal, 10-vi-09. *Type* in Indian Museum.

**indistincta**, *id.*, *loc. cit.*, 65, ♂ (1912).

Kurseong, 20-vi-10 [*Annandale*] *Type*, unique, in Ind. Mus.

**longifurcata**, *id.*, *loc. cit.*, 65, ♂ ♀ (1912).

Kurseong, 24—26-iii-10 [*Annandale*]. *Types* in Ind. Mus.

**funerea**, *id.*, *loc. cit.*, 65, ♀ (1912).

Gangtok, 6150 ft., Sikkim, 9-ix-09. *Type*, unique, in Indian Museum.

**flavomarginata**, *id.*, *loc. cit.*, 66, ♂ (1912).

Naini Tal, 3-vi-09. *Type*, unique, in Indian Museum.

**fumipes**, *id.*, *loc. cit.*, 66, ♂ (1912).

Peradeniya, 22-vii-10. *Type*, unique, in Indian Museum.

**annandalei** Brun., *loc. cit.*, 67, ♀, pl. iii, 5, full insect (*Isoneuromyia*) (1912).

Sylhet, 27-v-05, *type* [*Hall*]; Kandy, v and viii-09 [*Green*]; Cochin State, 28—29-xi-14 [*Gravelly*]. *Type* in Indian Museum, *cotypes* in my collection.

**rufescens**, *id.*, *loc. cit.*, app. 559, ♀ (*Isoneuromyia*) (1912).

Simla, 20-vii-11 [*Annandale*]. *Type*, unique, in Indian Museum.

**limbata**, *nom. nov.*, Brun., Rec. Ind. Mus. XIII, 61 (1917).

*P. marginata*, Brun., *loc. cit.*, 62, ♂ ♀, pl. iii, 3, genitalia ♂ (1912), preocc. Mg.

Naini Tal, 3 and 10-vi-09. *Types* in Indian Museum.

### Subfamily SCIOPHILINAE.<sup>1</sup>

#### Sciophila, Mg.

Syst. Besch. I, 245 (1818).

Sch., F. Austr. II, 441: *Auctt. var.*: Johan., Gen.

Ins., Fasc. 93, 36: Brun., Fauna Brit. Ind., 68.

GENOTYPE, *S. hirta* Mg., designated by Curtis, Brit. Ent. 641 (1837).

*Lasiosoma*, Winn., Verh. z.b. Ges. Wien XIII, 748 (1863).

GENOTYPE, *Sciophila pilosa* Mg., by Coquillett's designation.

**bicolor** Brun., Fauna Brit. Ind., 70, ♀, pl. i, 10, wing (1912).

Darjiling, 7—8-viii-09, *type* [*Paiva*]; 28-v-10 [*Brunetti*]. *Type* in Indian Museum.

<sup>1</sup> For table of genera see Kieff., Gen. Ins., Fasc. 93, 31.

**Mycomya**, Rond.

Dipt. Ital. Prod. I, 194 (*Mycomya*)(1856).

Johan., Gen. Ins., Fasc. 93, 45: Brun., Fauna Brit. Ind., 70.

GENOTYPE, *M marginata* Mg., designated by Rondani, Dipt. Ital. Prod. I.

*Sciophila*, Mg., pt.

*Sciophila*, Winn., Verh. z.b. Ges. Wien XIII, 707 (1863).

GENOTYPE, apparently no species ever selected.

? *Sciobia*, Lw., Bernst. u. Bernst. Fauna, 33 (1850).

? *Cnephoephila*, Phil., Verh. z.b. Ges. Wien XV, 618 (1869).

**flaviventris** Brun., Fauna Brit. Ind., 72, ♂ ♀ (1912).

Kurseong, 3-vii-08, type ♂ [*Annandale*]; Ohiya, Ceylon, ii-07, type ♀ [*Green*]. Type ♂ in Indian Museum, type ♀ in my collection.

**bifascipennis**, *id.*, *loc. cit.*, 72, ♂, pl. iii, 6, ♂ genitalia (1912).

Brun., Rec. Ind. Mus. XIII, 61, note.

Bhowali, 5700 ft., vii-09, type [*Imms*]; Simla, x-08 [*Howlett*]; Maskeliya, Ceylon [*Green*]. Type in Indian Museum, cotype in my collection.

**basalis** Brun., Fauna Brit. Ind., 73, ♂, pl. i, 13, wing (1912).

Bhowali, 5700 ft., vii-09 [*Imms*]. Type in Indian Museum.

The abdomen of the unique type has since been lost.

**tinctipennis**, *id.*, *loc. cit.*, 74, pl. i, 11, wing (1912).

Kurseong, 3-vii-08 [*Annandale*]. Type, unique, sex uncertain, in Indian Museum.

**ferruginea**, *id.*, *loc. cit.*, 74, ♂ ♀, pl. i, 12, wing (1912).

Kurseong, 3-vii-08, type ♂ [*Annandale*]; Darjiling, 29-v-10, type ♀ [*Brunetti*]; Calcutta, 11-ii-90; Peradeniya, xii [*Gravelly*]. Types in Indian Museum.

**trilineata**, *id.*, *loc. cit.*, 75, ♂ (1912).

Simla, 10-v-09 [*Annandale*]; x-11, sweeping near the Dhobi Ghat [*Howlett*]. Type in Indian Museum.

**indefinita**, *id.*, *loc. cit.*, 76, ♂, and ? ♀ (1912).

Brun., Rec. Ind. Mus., XIII, 62.

Darjiling, 29-v-10 [*Brunetti*]; Simla, x-11. Type and second specimen in Indian Museum.

**indica**, *id.*, *loc. cit.*, 76, ♂ ♀ (1912).

Simla and Phagu, 10—12-v-09 [*Annandale*]. Type in Indian Museum.

**flavithorax**, *id.*, *loc. cit.*, 77, ♂ (1912).

Darjiling, 25-v-10 [*Annandale*]. Type, unique, in Ind. Mus.

**curvilinea**, *id.*, *loc. cit.*, 77, ♂ (1912).

Tonglu, Darjiling Distr., 10,000 ft., 22-iv-10, type [*Beebe*]; Darjiling, 29-viii-10 [*Brunetti*]. Type in Indian Museum.

**Polylepta**, Winn.

Verh. z.b. Ges. Wien XIII, 745 (1863).

Sch., F. Austr. II, 447: *Auctt. var.*: Johan., Gen. Ins., Fasc. 93, 43: Brun., Fauna Brit. Ind, 78, pl. i, 14.

GENOTYPE, *P. undulata* Winn., by designation of Johannsen (Gen. Ins., Fasc. 93, 43, 1909).

**dublosa** Brun., Fauna Brit. Ind., 79, ♂ (1912).

Mundali, Dehra Dun, 9000 ft., 10-v-10 [Beebe]. *Type*, unique, in Indian Museum.

**incerta**, *id.*, *loc. cit.*, 79 (1912).

Mundali, 12-v-10 [Beebe]. *Type*, a unique specimen, apparently a ♀, in Indian Museum.

**Neoempheria**, Ost. Sack.<sup>1</sup>

Cat. N. Amer. Dipt., Ed. II, 9 and 16, *nom. nov.* (1878).

*Empheria*, Winn., Verh. z.b. Ges. Wien XIII, 738 (1863), preocc. Hagen 1856 in Psocidae; Sch., F. Austr. II, 446.

GENOTYPE, *Sciophila striata* Mg., by Coquillett's designation.

*Mycomyia*, Johann., pt., Gen. Ins., Fasc. 93, 45 (1909).

GENOTYPE, *Sciophila striata* Mg., according to Coquillett.

**tropcia** Dol., Nat. Tijd. Ned. Ind. XIV, 392, pl. iv, 2 (*Sciophila*) (1857).

Java. *Type* possibly lost; location unknown to present author. Van der Wulp removes the species from *Sciophila* to this genus on the strength of Doleschall's figure.

**indivisa** Walk., Proc. Linn. Soc. Lond. VII, 233 (*Leia*) (1864).

Waigou. *Type* in good condition in British Museum.

Mr. Edwards informs me the species belongs here.

**propinqua** de Meij., Tijd. v. Ent., L, 203, ♂ ♀, pl. v, 4, wing, pt. (*Empheria*) (1907).

Semarang, iii [Jacobson]. *Types* in Amsterdam Museum, including pairs *in cop.*

**apicalis**, *id.*, *loc. cit.*, 204, ♂, pl. v, 5, wing, pt. (*Empheria*) (1907).

Semarang, i [Jacobson]. Unique *type* in Amsterdam Museum.

Subfamily **DIADOCIDIINAE**.**Chiasmoneura**, de Meij.

Tijd. v. Ent., LVI, 323 (1913).

GENOTYPE, *C. anthracina*, *id.*, *loc. cit.*, sp. nov.

**anthracina** de Meij., *loc. cit.*, 324, ♀, pl. xv, 1b, wing (1913).

<sup>1</sup> I followed Johannsen in uniting this genus with *Mycomyia* in my Fauna volume, but both Coquillett and de Meijere keep them separate.

Wonosobo, Java [*Jacobson*]. *Type*, unique, in Amsterdam Museum.

Subfamily MYCETOBIIINAE.

**Mesochria**, Enderl.

Tr. Linn. Soc. Lond. XIV, 65 (1910).

GENOTYPE, *M scoffiana*, sp. nov., *loc. cit.*

**cinctipes** de Meij., Tijds. v. Ent. LVI, 322, ♂ (1913).

Batavia, viii [*Jacobson*]. *Type* in Amsterdam Museum.

Subfamily MYCETOPHILINAE.<sup>1</sup>

(For tab. orient. gen. v. Brun., Fauna Brit. Ind., 80).

**Boletina**, Staeg.

Naturh. Tidsskr. III, 233 (1840).

Johan., Gen. Ins., Fasc. 93, 73.

GENOTYPE, *Leia trivittata* Mg., by designation of Johannsen.

**brevirostris** Brun., Fauna Brit. Ind., 83, ♂, pl. iii, 7, head (*Gnoriste*) (1912).

Mundali, Dehra Dun, 9000 ft., 12-v-10 [*Beebe*]. *Type*, unique, in Indian Museum.

The name of this species is misleading now that it is referred here, but was applicable when placed in *Gnoriste*. My error was kindly pointed out to me by Mr. Edwards (*in litt.*).

**Leptomorphus**, Curt.

Brit. Entom. 365 (1831).

Sch., F. Austr. II, 453: Johan., Gen. Ins., Fasc. 93, 71: Brun., Fauna Brit. Ind., 84, pl. ii, 1, wing.

GENOTYPE, *L. walkeri* Curt., by original designation.

**ornatus** Brun., Fauna Brit. Ind., 85, ♀ (1912).

Sylhet, 3-ii-05 [*Hall*]. *Type*, unique, in Indian Museum.

**Palacoanaclinia**, Meun.

Monog. Mycetoph., 143 (1904).

Johan., Gen. Ins., Fasc. 93, 85, pl. v, 22, 23, wing (1909); Brun., Fauna Brit. Ind., 85, pl. ii, 7, wing (1912).

GENOTYPE, *P. distincta* Meun., by original designation.

**spathulata** Brun., Fauna Brit. Ind., 84, ♂, pl. iii, 8, head (*Gnoriste*) (1912).

Darjiling, 29-v-10 [*Brunetti*]. *Type*, unique, in Indian Museum.

<sup>1</sup> For table of genera see Kieff., Gen. Ins., Fasc. 93, 52.

**flavohirta** Brun., *loc. cit.*, 86, ♂ (1912).

Darjiling, 11-viii-09 [*Jenkins*]. *Type*, unique, in Indian Museum.

**Allactoneura**, de Meij.

Tijd. v. Ent. L, 201 (1917).

Johan., Gen. Ins., Fasc., 93, 70: Brun., Fauna Brit. Ind., 88.

GENOTYPE, *A. cincta* de Meij., the original species.

*Scottella*, Enderl., Trans. Linn. Soc. Lond. XIV, 60 (1910).

GENOTYPE, *S. argenteosquamosa*, sp. nov., *loc. cit.*

**obscurata** Walk., Proc. Linn. Soc. Lond. VIII, 130 (*Mycetophila*) (1865).

Salawatti. *Type* in British Museum, in fair condition, abdomen missing.

**cincta** de Meij., Tijd. v. Ent. L, 202, ♂ ♀, pl. v, 2, 3, wing (1907).

Brun., Fauna Brit. Ind., 88 ♂ ♀, pl. i, 17, wing: Meij., Tijd. v. Ent. LVI, 321.

*Scottella formosana*, Enderl., Trans. Linn. Soc. Lond. XIV, 63, ♀, fig. 3, wing (1910).

*Allactoneura formosana*, de Meij., Tijd. v. Ent. LVI, 320.

*Scottella argenteosquamosa*, Enderl., Trans. Linn. Soc. Zool. (2) XIV, 60 (1910).

Sylhet, 1-i-05 [*Hall*]; Thaumaspur, Nepal, 18—20-ii-08; Kobo, N.E. Ind. Frontier, 2-xii-11 [*Kemp*]; Peradeniya, ix, xii-09 [*Green*]; 10—30-vi-10 and 15-viii-10 [both *Gravelly*]; Semarang, ii, iii-06; Buitenzorg, ix; Nongkodjadar, i; Wonosobo, iv [all Java and *Jacobson*]; Kyukokado, Formosa, 6-i-08 [*Sauter*]. *Types* of *cincta* in Amsterdam Museum, of *S. formosana* in Stettin Zoological Museum.

**nigrofemorata** de Meij., Tijd. v. Ent. LVI, 322, ♀

Nongkodjadar, Java, i [*Jacobson*]. *Type*, unique, in Amsterdam Museum.

**Odontopoda**, Aldr.

Rep. Geol. Indiana, XXI, 187 (1898).

Johann., Gen. Ins., Fasc. 93, 70: Brun., Fauna Brit. Ind., 89, pl. i, 16, wing.

GENOTYPE, *O. sayi* Aldr., by original designation.

*Proanaclinia*, Meun., Monog. Myceto., 145 (1904).<sup>1</sup>

**indica** Brun., Fauna Brit. Ind., 90, ♂ (1912).

Darjiling, 1-x-08 [*Brunetti*]. Unique *type* in Indian Museum.

**Anomalomyia**, Hutton.

Index Fauna Nov. Zeal., 134 (1904).

Johann., Gen. Ins., Fasc. 93, 83: Brun., Fauna Brit. Ind. 90, pl. ii, 6, wing.

<sup>1</sup> I cannot obtain access to this work.

*Anomala*, Marshall (*nec* Stephens), Trans. N. Zeal. Inst. XXVIII, 293 (1896).

GENOTYPE, *Mycetophila guttata* Hutton, by original designation.

**indica** Brun., Fauna Brit. Ind., 91, ♂ (1912).

Darjiling, 7-viii-09 [*Paiva*]. Unique *type* in Indian Museum.

#### Acrodicrania, Skuse.

Proc. Linn. Soc. N. S. Wales (2) III, 1194 (1888).

Johann., Gen. Ins., Fasc. 93, 81: Brun., Fauna Brit. Ind. 92.

GENOTYPE, *A. atricauda* Skuse, by original designation.

**ferruginea** Brun., Fauna Brit. Ind., 93, ? ♀ (1912).

Khasi Hills, 1000-3000 ft., x-06. Unique *type* in Pusa coll.

**incerta**, *id.*, *loc. cit.*, 93, ♀ (1912).

Kurseong, 20-vi-10 [*Annandale*]. Unique *type* in Ind. Mus.

#### Clastobasis, Skuse.

Proc. Linn. Soc. N.S. Wales (2) V, 617 (1890).

Johann., Gen. Ins., Fasc. 93, 80: Brun., Fauna Brit. Ind., 94, pl. ii, 5, wing.

GENOTYPE, *C. tryonii* Skuse, by original designation.

**vittigera** Brun., Fauna Brit. Ind., 95, ♀ (1912).

Sadiya, Assam. Unique *type* in Indian Museum.

#### Leia, Mg.<sup>1</sup>

Syst. Besch. I, 253 (1818).

Sch., F. Austr. II, 459; Johann., Gen. Ins., Fasc. 93, 76: Brun., Fauna Brit. Ind., 96: *Auctt.*

GENOTYPE, *L. fascipennis* Mg., by Curtis's designation, 1837.

*Lejomya*, Rond., Dipt. Ital. Prod. I, 195 (1856).

*Lejosoma*, *id.*, *loc. cit.*, I, Corrigenda (1856).

*Glaphyoptera*, Winn., Verh. z.b. Ges. Wien XIII, 781 (1863).

GENOTYPE, *Leia fascipennis* Mg., by Coquillett's designation.

*Neoglaphyoptera*, Ost. Sack., Cat. N. Amer. Dipt., 10, *nom. nov.* (1878).

*Greenomyia*, Brun., Fauna Brit. Ind., 87 (1912).

GENOTYPE, *G. nigricoxa*, *id.*, *loc. cit.*, sp. nov.

**winthemi** Lehm., Ins. spec., etc., 39 (1822): Meig., Syst. Besch.

VII, 48: Winn., Verh. zool.-bot. Ges. Wien XIII, 789

(*Glaphyoptera*): Wulp, Dipt. Sum. Exped., 7 (*Glaphyoptera*):

*Auctt. var.*: Brun., Fauna Brit. Ind., 97, ♂ ♀, pl. ii, 2 wing.

<sup>1</sup> Respecting *Leia v. Lejomya*, see Johann., Gen. Ins., Fasc. 93, 76, and Edw., Ann. Mag. Nat. Hist. (8) XII, 201 (1913).

*Mycetophila maculipennis*, Say, in Long's Exped. St. Peter's Riv., App. 365 (1824).

*Leia trifasciata*, Walk., List Dipt. Brit. Mus. I, 93 (1848).

Simla, 25-iv-07, 5-v-07, 10-v-09; Matiana, Simla District, 28—30-iv-07 [all *Annandale*]; Naini Tal, 2-vi-09; Darjiling, 29-v-10 [*Brunetti*, *Paiva*]; Ukhrul, Manipur [*Pettigrew*]; Sumatra. Also occurs in Europe and North America. *Type*: the location of this unknown to me.

**bimaculata** Walk., List Dipt. Brit. Mus. I, 100 (*Mycetophila*) (1848).

East Indies. *Type* in British Museum in fair condition (no abdomen). Mr. Edwards informs me it belongs to this genus.

**maculicoxa** Enderl., Trans. Linn. Soc. Lond. XIV, 69 (1910).

Edw., Ann. Mag. Nat. Hist. (8) XII, 200, note.

*Rhymosia fascipes*, Brun., Fauna Brit. Ind., 106, ♂, pl. iii, 12, ♂ genitalia (1912).

Peradeniya, x, 1912 [*Edw.*], 7-viii-10 [*Gravelly*]. *Type* of *fascipes* in Indian Museum, location of that of *maculicoxa* unknown to me.

**nigricoxa** Brun., Fauna Brit. Ind., Dipt., 87, ♂, pl. ii, 8, wing; pl. iii, 9, ♂ genitalia (*Greenomyia*) (1912).

*Leia spathulata*, *id.*, *loc. cit.*, 101, ♂ (1912).

Phagu, 3-v-07, *type* of *nigricoxa* [*Annandale*]; Darjiling, 25-v-10, *type* of *spathulata* [*Brunetti*]. The identity of these two species was pointed out to me by Mr. Edwards (*in litt.*).

**flavobrunnea** Brun., Fauna Brit. Ind., 99, ♂ (1912).

Darjiling, 29-v-10 [*Brunetti*]. *Type*, a unique specimen, in Indian Museum.

**arcuata**, *id.*, *loc. cit.*, 99, ♂ ♀, pl. ii, 3, wing (1912).

Brun., Rec. Ind. Mus. XIII, 62.

Kurseong, 9-vii-08, *type* ♂, 5-vii-08, *type* ♀, 3-vii-08, 15-iv-11, 26-vi-10; Darjiling; Naini Tal, 10-vi-09; Simla, x-08 [*Howlett*]; Bhowali, Kumaon, 28-vi-10 and vii-09 [*Imms*]; Khasi Hills (1000—3000 ft.), iii-07; Komsing, N.E. Ind. Frontier, 1-iii-12 [*Kemp*]; Ceylon. *Type* in Indian Museum, *co-type* in Pusa collection.

**bicolor**, *id.*, Fauna Brit. Ind., 100, ♀ (1912).

Kurseong, 7-ix-09 [*Annandale*]. *Type*, a unique specimen, in Indian Museum.

**insignis**, *id.*, *loc. cit.*, 101, ♀ (1912).

Ukhrul, Manipur (6400 ft.). *Type*, a unique specimen, in Indian Museum.

**nigra**, *id.*, *loc. cit.*, 101, ♀ (1912).

Naini Tal, 2-vi-09, *type*; Simla, 9-v-09 [*Annandale*]; Senchal, v-13 [*Lord Carmichael* coll.]. *Type* in Indian Museum.

**demeijerei** *nom. nov.*



*L. nigra*, de Meij., Bijd. tot. Dierk. XIX, 46, pl. i, 3, wing (1913).  
Ceram, ii. *Type* in Amsterdam Museum  
The name *nigra* is preoccupied by me in 1912.

### Rhymosia, Winn.

Verh. z.b. Ges. Wien XIII, 810 (1863).

Sch., F. Austr. II, 463: *Auctt. var.*: Johan.,  
Gen. Ins., Fasc. 93, 102: Brun., Fauna Brit.  
Ind., 102.

GENOTYPE, *R. fasciata* Mg., by designation of  
Johannsen (Gen. Ins., Fasc. 93, 102, 1909).

**flavolimbata** Brun., Fauna Brit. Ind., 103, ♂ ♀ (1912).

Kurseong, 4-vii-08, *type*, 21-vi-10 [both *Annandale*]; Simla,  
x-03 [*Howlett*]; Kumaon, vii-09 [*Imms*]. *Type* in Ind. Mus.

**genitalis**, *id.*, *loc. cit.*, 104, ♂ (1912).

Darjiling, 29-v-10 [*Brunetti*]. *Type*, a unique specimen, in  
Indian Museum.

**albolateralis**, *id.*, *loc. cit.*, 104, ♂ (1912).

Naini Tal, 10-vi-09. *Type* in Indian Museum, a unique  
specimen.

**annulicornis**, *id.*, *loc. cit.*, 105, ♂ ♀, pl. ii, 10, wing; pl. iii, 13, 14,  
genitalia and antennae (1912).

Madhupur, Bengal, 13-x-09, *type* ♂ ♀, 15-x-09 [*Paiva*]; Cal-  
cutta, 18-vii-08 [*Annandale*]; Peradeniya, 14—16-vii-10 [*Gravelly*].  
*Types* in Indian Museum.

**humeralis**, *id.*, *loc. cit.*, 106, ♂ (1912).

Sylhet, 3-ii-05 [*Hall*]. *Type*, a unique specimen, in Indian  
Museum.

### Allodia, Winn.

Verh. zool.-bot. Ges. Wien XIII, 826 (1863).

Sch., F. Austr. II, 466: *Auctt. var.*: Johan.,  
Gen. Ins., Fasc. 93, 103: Brun., Fauna Brit.  
Ind., 107.

GENOTYPE, *Mycetophila lugens* Wied., by Johann-  
sen's designation.

*Brachycampta*, Winn., Verh. z.b. Ges. Wien XIII,  
833 (1863).

GENOTYPE, *Mycetophila alternans* Zett., by Co-  
quillet's designation.

**nigrofasciata** Brun., Fauna Brit. Ind., 108, ♂ ♀, pl. ii, 11, wing  
(1912).

Simla, 10-v-09, *type* ♂ ♀ [*Annandale*]; Kufri, v; Mundali,  
Dehra Dun, 9000 ft., 10—12-v-10 [*Beebe*]. *Types* in Indian  
Museum.

### Macrobrachius, Dzied.

Hor. Soc. Ent. Ross. XXII, 520 (1889).

Johan., Gen. Ins., Fasc. 93, 98: Brun., Fauna  
Brit. Ind., 108.

GENOTYPE, *M kowarzii* Dzied., by original designation.

**longicosta** Brun., Fauna Brit. Ind., 109, ♂, pl. iii, 11, ♂ genitalia (1912).

Kurseong, 25-vi-10 [Annandale]. *Type*, a unique specimen, in Indian Museum.

**Phronia**, Winn.

Verh. zool.-bot. Ges. Wien XIII, 857 (1863).  
Sch., F. Austr. II, 471: *Auctt. var.*: Johan., Gen. Ins., Fasc. 93, 95: Brun., Fauna Brit. Ind., 110, pl. ii, 9, wing.

GENOTYPE, *P. rustica* Winn., by designation of Johannsen.

**simplex** Brun., Fauna Brit. Ind., 111, ♀ (1912).

Assam. *Type*, unique, in Indian Museum.

**semifumata**, *id.*, *loc. cit.*, 111, ♂, pl. iii, 10, ♂ genitalia (1912).

Tonglu, Darjiling, 21-iv-10 [Beebe]. *Type* in Indian Museum, a unique specimen.

**Exechia**, Winn.

Verh. zool.-bot. Ges. Wien XIII, 879 (1863).  
Sch., F. Austr. II, 475: *Auctt. var.*: Johan., Gen. Ins., Fasc. 93, 106: Brun., Fauna Brit. Ind., 112.

GENOTYPE, *E. fungorum* DeGeer, by Johannsen's designation.

*Parexechia*, Bech., Ins. v. Jan Mayen, 62 (1886).

GENOTYPE, *P. concolor*, *id.*, sp. nov., *loc. cit.*, pl. v., fig. 3, 3a—3c, full ins. var. chars.

*Brachydicrania*, Skuse, Proc. Linn. Soc. N.S. Wales (2) III, 1215 (1888).

GENOTYPE, *B. pullicauda*, *id.*, sp. nov., *loc. cit.*

**basilinea** Brun., Fauna Brit. Ind., 113, ♂ ♀, pl. ii, 12, wing (1912).

Kurseong, 3—4-vii-08 [Annandale]; Simla, x-08 [Howlett]. *Types*, a unique pair, in Indian Museum.

**Euryschalis**, Brun.

Fauna Brit. Ind., App., 559 (1912).

GENOTYPE, *E. spectralis*, the original species.

**spectralis** Brun., *loc. cit.*, 560, ♂ (1912).

Kurseong, 16-iv-11 [Annandale]. *Type*, a unique specimen, in Indian Museum.

Mr. Edwards informs me (*in litt.*) that *Euryschalis* may be synonymous with *Coelosia* Winn., but as there are no specimens at hand of the latter genus for comparison, I leave the question open for the present. The costa attains the wing tip in *Euryschalis*; the genital organs are very different to those figured in the Genera Insectorum; the fore metatarsi are about equal to the corresponding tibiae.

**Mycetophila**, Mg.

Illig. Mag. II, 263 (1803).

Sch., F. Austr. II, 484: *Auctt.*: Johan., Gen. Ins., Fasc. 93, 115: Brun., Fauna Brit. Ind., 113.

GENOTYPE, *M. agarici* Oliv., proposed by Johannsen (Gen. Ins., Fasc., 93, 106, 1909).

*Mycetina*, Rond., Dipt. Ital. Prod. I, 195 (1856).

GENOTYPE, *Mycetophila flavipes* Macq., by original designation.

*Mycozetoea*, *id.*, *loc. cit.*, IV, Corrigenda, 12 (1861).

**cinctiventris** Brun., Fauna Brit. Ind., 115, ? ♂ (1912).

Simla, 10-vii-09 [*Annandale*], x-08 [*Howlett*]. *Type*, unique, in Indian Museum.

**quadrifasciata**, *id.*, *loc. cit.*, 115, ♂, pl. ii, 13, wing (1912).

Simla, 10-v-09 [*Annandale*]. *Type*, unique, in Ind. Mus.

**curvilinea**, *id.*, *loc. cit.*, 116, ♀, pl. ii, 14; wing (1912).

Darjiling, 10-16-x-05 [*Brunetti*]. *Type*, unique, in my collection.

**suffusa**, *id.*, *loc. cit.*, 117, ♀ (1912).

Simla, 10-v-09 [*Annandale*]. *Type*, unique, in Ind. Mus.

**himalayensis**, *id.*, *loc. cit.*, 117, ♂ (1912).

Simla, 10-v-09 [*Annandale*]; Naini Tal, 10-v-09. *Type* in Indian Museum.

**binotata** *id.*, *loc. cit.*, 118, ♂ ♀ (1912).

*Id.*, Rec. Ind. Mus., XIII, 63.

Darjiling, 20-ix-08, *type*, ♂, 26-ix-08, 29-v-10 [all *Brunetti*]; Simla, 10-v-09, *type* ♀ [*Annandale*], 8-x-11 [*Howlett*]; Ukhrul, Manipur. *Types*, ♂ ♀, in Indian Museum.

Mr. Edwards calls my attention to the name *M. binotata*, Halid., which, as he states, is a synonym of *Zygomya pictipennis*. The name of my species need not therefore be changed.

**Delopsis**, Skuse.

Proc. Linn. Soc. N.S. Wales (2) v, 623 (1890).

Brun., Fauna Brit. Ind., 118: Johan., Gen. Ins., Fasc. 93, 115.

GENOTYPE, *D. flavipennis* Skuse, by original designation.

**griseolateralis**, *id.*, *loc. cit.*, 116, ♂ (*Mycetophila*) (1912).

Tonglu, Darjiling, 10,000 ft., 21-iv-10 [*Beebe*]. *Type*, unique, in Indian Museum.

**brunettii** Edwards, Ann. Mag. Nat. Hist. (8) XII, 55, *nom. nov.* (1913).

*collaris*, Brun., Fauna Brit. Ind., 119, ♂ (1912).

Maddathorai (Travancore), 17-xi-08 [*Annandale*]. *Type* in Indian Museum, unique.

This species is renamed by Edwards who finds that *Mycetophila collaris*, Enderl., from the Seychelles, is a *Delopsis*.

## Family BLEPHAROCERIDAE.

**Hammatorhina**, Loew.

Bull. Soc. Ent. Ital. I, 4 (1869).

Brun., Fauna Brit. Ind., 152.

Kellogg, Gen. Ins., Fasc. 56, 9.

GENOTYPE, *H. bella*, the original and only species.**bella** Loew, Bull. Soc. Ent. Ital. I, 96, pl. ii, 4—6 (1869).

Kellogg, Gen. Ins., 9, pl. ii, 17, antenna, 27, wing: Brun.,

Fauna Brit. Ind., 152, fig. 14, wing, antenna.

Ceylon. *Type*, location uncertain.**Apistomyia**, Big.

Ann. Soc. Ent. Fran. (4) II, 109 (1862).

Kellogg, Gen. Ins., Fasc. 56, 8.

Brun., Fauna Brit. Ind., 153.

GENOTYPE, *A. elegans* Big.**trilineata** Brun., Rec. Ind. Mus. IV, 315, ♂ (1911).*Id.*, Fauna Brit. Ind., 154, ♀Kurseong, 4-ix-09 [Annandale]. *Type*, a unique ♂, in Indian Museum.**Blapharocera**, Macq.Ann. Soc. Ent. Fran. (2) I, 61 (1843) (*Blepharicera*).Sch., F. Austr. II, 637 (*Blepharicera*): Kellogg,

Gen. Ins., Fasc. 56, 11: Brun., Fauna Brit. Ind.,

155 (*Blepharocera*).GENOTYPE, *Asthenia fasciata* Westw. (as *Blepharicera limbipennis*, sp. nov.).*Asthenia*, Westwood, Guer. Mag. d. Zool. (2) IV,

pl. xciv (1842); preocc. Hubn. 1816.

GENOTYPE, *Asthenia fasciata* Westw., by original designation.**indica** Brun., Rec. Ind. Mus. IV, 316, ♂ ♀ (1911).*Id.*, Fauna Brit. Ind., 156, ♂ ♀, fig. 15, wing.Phagu, 12—15-v-00 [Annandale]. *Types* in Indian Museum.**Philorus**, Kellogg.

Proc. Acad. Sci. Calif. (3) Zool. 3, 199 (1903).

Kellogg, Gen. Ins., Fasc. 56, 14.

GENOTYPE, *Liponeura bilobata* Loew.<sup>1</sup>**bionis** Agharkar, Rec. Ind. Mus. X, 160, ♂ ♀, pl. xvi, figs. of various larvae, pl. xvii, full figs. ♂ ♀, head ♂ ♀, genitalia ♂ ♀, wing (1914).Nagaberan, Kashmir. *Types* in Indian Museum.<sup>1</sup> Apparently this species was selected by Kellogg as the type.

## Family BIBIONIDAE.

## Subfamily SCATOPSINAE.

**Scatopse**, Geoff.<sup>1</sup>

Hist. Nat. II, 545 (1764).

Sch., F. Austr. II. 348: *Auctt. var.*: Brun.,  
Fauna Brit. Ind., 179.*Scathopse*, Geoff., Hist. abregée Ins. II, 544 (1762).GENOTYPE, *Tipula notata* L., by designation of  
Latreille, as *Tipula albipennis* F.**brunnescens** Brun., Rec. Ind. Mus. IV, 281, ♀ (1911).*Id.*, Fauna Brit. Ind., 180, ♀, fig. 20, wing.Peradeniya, 9-vii-10 [*Gravelly*]. *Type*, unique, in Ind. Mus.**nigronitida** Brun., Rec. Ind. Mus. IV, 281, ♂ ♀ (1911).*Id.*, Fauna Brit. Ind., 181, ♂ ♀, fig. 21, antenna, wing, leg.Dharampur, 5000 ft., Simla Hills, 14-v-08, two pairs *in cop.*  
[*Annandale*]. *Types* in Indian Museum.**crassiuscula** de Meij., Tijd. v. Ent. LVI, 325, pl. xv, 2, wing (1913).Batavia, x [*Jacobson*]. *Type*, unique, in Amsterdam  
Museum.**palliditarsis**, *id.*, *loc. cit.*, 325, ♀, pl. xv, 3, wing (1913).Banjuwangi, E. Java [*MacGillavry*]. *Type*, unique, in  
Amsterdam Museum.**pallidicornis**, *id.*, *loc. cit.*, 326, pl. xv, 4, wing (1913).Semarang, x [*Jacobson*]. *Type* in Amsterdam Museum.**crassicornis**, *id.*, *loc. cit.*, 326, pl. xv, 5, wing (1913).Batavia, x [*Jacobson*]. *Type* in Amsterdam Museum.

## Subfamily BIBIONINAE.

**Crapitula**, Gimm.

Bull. Soc. Imp. Nat. Mosc. XVIII, 2, 330 (1845).

GENOTYPE, *Penthetria melanaspis* Wied., by original  
designation.*Pleciomyia*, Brun., Rec. Ind. Mus. IV, 269 (1911):*id.*, Faun. Brit. Ind., 160.GENOTYPE, *Penthetria melanaspis* Wied., by original  
designation.**melanaspis** Wied., Auss. Zweifl. I, 72 (*Penthetria*) (1828).Brun., Rec. Ind. Mus. IV, 270 (*Pleciomyia*): *id.*, Fauna Brit.Ind., 161, ♂ ♀, pl. xii, 11, wing, 14, antenna (*Pleciomyia*).*Penthetria japonica*, Wied., Auss. Zweifl. II, 618 (1830).*Crapitula motschulskii*, Gimm., Bull. Soc. Imp. Nat. Mosc. XVIII,  
2, 330, fig. (1845).

<sup>1</sup> Coquillet upholds the original spelling, *Scathopse*, but as no named species was quoted at its erection, though two unnamed species were described, this generic name cannot be accepted.

*Id., id.*, Loew., Berl. Ent. Zeits. II, 106, pl. i, 12.

*Crapitula melanaspis*, Brun., Rec. Ind. Mus. IX, 256.

*Plecia ignicollis*, Walk., List Dipt. Brit. Mus. I, 116 (1848).

*Plecia melanaspis*, *Auctores*.

Himalayas (many locs.); Nepal; Assam; N.E. Ind. Frontier; China; Japan; Siberia. Probably common everywhere throughout the temperate regions of the Orient, and in Eastern Asia from about March to October. Not found in the plains in India. Occurs in Australia. *Types* in the Leyden and Vienna Museums.

### **Plecia, Wied.**

Auss. Zweifl. I, 72 (1828).

Brun., Rec. Ind. Mus. IV, 270: *Id.*, Fauna Brit. Ind. 162: *Auctores*.

GENOTYPE, *Hirtea fulvicollis* F., by designation of Blanchard (Hist. Nat. Ins. III, 576, 1840).

*Eupeitenus*, Macq., Dipt. Exot. I, 88 (1838).

GENOTYPE *E. atra* Macq., by original designation.

*Rhinoplecia*, Bell., Ditt. Messico I, 16 (1859).

GENOTYPE, *Plecia rostellata* Lw., as *rostrata*, sp. nov., by original designation.

**fulvicollis** F., Syst. Antl., 53 (*Hirtea*) (1805).

*Plecia fulvicollis*, Wied., Auss. Zweifl. I, 73: Macq., Hist. Nat. Dipt. I, 176: Dol., Nat. Tijd. Ned. Ind. X, 407, pl. vi, 3: Ost. Sack., Ann. Mus. Gen. XVI, 397: *id.*, Berl. Ent. Zeits. XXVI, 96: de Meij., Tijd. v. Ent. LIII, 59, larva and pupa, pl. iv, 1, 2: Brun., Rec. Ind. Mus. IV, 271: *id.*, Fauna Brit. Ind., 163, ♂ ♀, pl. xii, 12, wing, 15, antenna.

*Plecia dorsalis*, Walk., Proc. Linn. Soc. Lond. I, 5 (1857), Singapore, Mount Ophir.

*Plecia subvarians*, *id.*, *loc. cit.*, I, 105 (1857), Sarawak.

*Penthetria thoracica*, Guer., Belanger's Voy. aux Indes Orient., Zool., 557, pl. iv, 9 (1833).

India; Ceylon; Burma; Assam; Java; Sumatra; Borneo; Ternate; Celebes; Dutch Papua; Philippines; probably common throughout the Oriental Region (though confined mainly to the plains), during the greater part of the year. *Type*. Probably no individual specimen was ever selected as such: the species is found in the Fabrician and other older collections.

**tergorata** Rond., Ann. Mus. Gen. VII, 462 (1875).

Ost. Sack., *loc. cit.*, XVI, 397: Brun., Rec. Ind. Mus. IV, 271, notes: *id.*, Fauna Brit. Ind. 164, pl. xii, 17, antenna.

Bhim Tal, 19—27-ix-06, including ♂ ♀, *in cop.*; Sukna, 1-vii-08 [both *Annandale*]; Kurseong, 6—9-viii-09 [*Paiva*]; Mussoorie, x-06; Bhowali, 13-vi-10 [*Imms*]; Shan Hills, Upper Burma, 26-vi-10 [*Annandale* and *J. C. Brown*]; Shillong, 5500—6400 ft., 29-viii—5-ix-15 [*Kemp*]; Khasi Hills, 17-iii-07; Malabar,

5-viii-07; Singapore; Java; Sarawak. *Type* in Genoa Museum.

**forcipata** Ost. Sack., Ann. Mus. Gen. XVI, 397 (1881).

de Meij., Tijd. v. Ent. LIII, 63.

Sumatra; Semarang, iii, viii, Wonosobo, iv [both Java and *Jacobson*]. *Type* in Genoa Museum.

**tristis** Wulp, Notes Leyden Mus. VI, 251, ♀ (1884).

de Meij., Tijd. v. Ent. LVI, 327, note.

Mount Ardjoeno, East Java; Gunung Gedeh, iii; Nongkodjadjar [both Java and *Jacobson*]. *Type* in Leyden Museum.

**indica** Brun., Rec. Ind. Mus. IV, 271, ♂ ♀ (1911).

*Id.*, Fauna Brit. Ind., 165, ♂ ♀

Darjiling, *type* ♂ ♀, 2-x-08 and 10—16-x-05 [both *Brunetti*]; Theog., 27-iv-06; Kumaon, ix-06 [both *Annandale*]; Mussoorie, x-06; Soondrijal, Nepal; Kimoli, 24-x-07; Kangra Valley (4500 ft.); Ukhrul, Manipur [*Pettigrew*]; Khasi Hills, 17-iii-07. *Types* in Indian Museum; *cotypes* in Pusa coll. and my own.

**atra** Brun., Rec. Ind. Mus. IV, 272, ♀ (1911).

*Id.*, Fauna Brit. Ind., 165, ♀, pl. xii, 13, wing, 16, antenna.

Bhim Tal (4500 ft.), including *type*, 19—22-ix-06 [*Annandale*]; Soondrijal, Nepal. *Type* in Indian Museum.

**obscura** Brun., Rec. Ind. Mus. IV, 272, ♂ ♀ (1911).

*Id.*, Fauna Brit. Ind., 166, ♂ ♀

Mussoorie, 24-v-05, *types* [*Brunetti*]. *Types* in my collection.

**impostor**, *id.*, Rec. Ind. Mus. VII, 446, ♂ ♀ (1912).

Airadeo, Kumaon Div., 6,880 ft., 31-v-12, *type* ♂ ♀; Bhowali, 25-vi-12 [both *Imms*]. *Type* ♂ ♀ in Indian Museum, *cotype* ♀ in Forest Zoology coll., Dehra Dun.

### **Parapleciomyia**, Brun.

Rec. Ind. Mus. IX, 446 (1912).

GENOTYPE, *P. carbonaria* Brun., by original designation.

**carbonaria** Brun., *loc. cit.*, 447, ♂ ♀ (1912).

Bhowali, 11-v-12, *type* ♂; Sat Tal, near Kumaon, 9-v-12 [both *Imms*]. *Type*, a unique pair, in Indian Museum.

### **Bibio**, Geoff.

Hist. Nat. Ins. II, 571 (1764).

Sch., F Austr. II, 357: Brun., Rec. Ind. Mus., IV, 273, tab. orient. spp.: *id.*, Fauna Brit. Ind., 166, fig. 17, head ♂ ♀: *Auctt. var.*

GENOTYPE, *B. hortulanus* L., by Latreille's designation.

*Pullata*, Harris, Expos. Engl. Ins., 77 (1776).

GENOTYPE, *Tipula pomonae* F., as *funestus*, sp. nov., by original designation.

*Hirtea*, Mg., Illig. Mag. II, 264 (1803).

GENOTYPE, no species selected.

**johannis** L., Syst. Nat. XII, 2, 976 (1767).

Sch., F., Austr. II, 361: Brun., Rec. Ind. Mus IV, 278: *id.*,

Fauna Brit. Ind. 172, ♂ ♀: *Auctt. var.*

*Bibio rufipes*, Mg., Syst. Besch. VII, 55 (1838).

*Hirtea praecox*, Fab., Syst. Antl., 51 (1805).

*Hirtea hyalina et praecox*, Mg., Klass. I, 110, 111 (1804).

*Hirtea johannis et pyri*, *Auctt.*

*Tipula pomonae*, Schrk., Fauna Boica III, 79 (1803).

*Tipula pyri*, F., Ent. Syst. IV, 249 (1794).

Matiana, 28—30-iv-07; Theog., 2-v-07 [both *Annandale*].

*Type*, location unknown to present author.

A common European species.

**bicolor** Walk., List Dipt. Brit. Mus. I, 121, ♀ (1848).

East Indies. *Type* in British Museum in good condition.

Van der Wulp (Cat.) quotes East India as the locality, which is quite different. This error is frequent in his Catalogue.

**obediens** Ost Sack., Ann. Mus. Gen. XVI, 395, ♀ (1881).

Hatam, Papua. vii, 1875 [*Beccari*]; Heuvel-Biwak, xi, ♀

*Type*, a unique ♀, in Genoa Museum.

**plecioides** Ost. Sack., *loc. cit.*, 396, ♀ (1881).

Hatam, Papua, vii, 1875 [*Beccari*]. *Type* in Genoa Museum.

**rubicundus** Wulp., Notes Leyd. Mus. VI, 251, ♀ (1884).

Java [*Muller*]. *Type*, a unique ♀, in Leyden Museum.

Possibly identical with *obediens* Ost. Sack.

**obscuripennis** de Meij., Bijd. tot Dierk. XVII, 86, ♂ ♀ (1904).

Brun., Rec. Ind. Mus. IV, 275, notes: *id.* Fauna Brit. Ind., 170, ♂ ♀, fig. 18, wing.

Darjiling, 16-x-05 [*Brunetti*], 27-v-10 [*D'Abreu*]; Kurseong, 27—28-iv-10 [*D'Abreu*]; Chitlong, Nepal; Mt. Tahe-pum, 4000—5000 ft., N.E. Burmese Frontier, xi-10 [*C. W. Beebe*]; Rotung, Dihang Riv., 25-xii-11 [*Kemp*]; Matiana, 28—30-iv-07 [*Annandale*]; Naini Tal, 26-ix-07. *Type* in Amsterdam Museum.

**hortulanoides** Brun. Rec. Ind. Mus. IV, 274, ♂ ♀ (1911).

*Id.*, Fauna Brit. Ind., 169, ♂ ♀

India (probably Darjiling District), *type* ♂; Kurseong, 15-v-10, *type* ♀; Darjiling District, vi-12. *Types* in Indian Museum.

**proximus** Brun., Rec. Ind. Mus. IV, 275, ♂ (1911).

*Id.*, Fauna Brit. Ind., 171, ♂

Darjiling, xi-1910 [*D'Abreu*]. *Type*, a unique ♂, in Ind. Mus.

**abdominalis** Brun., Rec. Ind. Mus. IV, 276, ♂ ♀ (1911).

*Id.*, Fauna Brit. Ind., 172, ♂ ♀

Western Himalayas; Badrinath, 10,200 ft., Garhwal Distr., 27-v-10, ♂ ♀, *types in cop.* [*A. D. Imms*]; Phagu, 11-v-09 [*Annandale*]. *Types* in Indian Museum.

**approximatus** Brun., Rec. Ind. Mus. IV, 277, ♀ (1911).

*Id.*, Faun. Brit. Ind., 173, ♀

Kurseong, xi-10 [*D'Abreu*]. *Type*, a unique ♀, in Ind. Mus.

**discalis** Brun., Rec. Ind. Mus. IV, 278, ♀ (1911).



- Id.*, Fauna Brit. Ind., 174, ♀  
Phagu, 11-v-09 [*Annandale*]. *Type*, a unique ♀, in Ind. Mus.
- rufifemur** Brun., Rec. Ind. Mus. IV, 279, ♀ (1911).  
*Id.*, Fauna Brit. Ind. 175, ♀  
Darjiling, 20-x-05 [*Brunetti*]. *Type* and *cotype* in my collection.
- fuscitibia** Brun., Rec. Ind. Mus. IV, 279, ♂ (1911).  
*Id.*, Fauna Brit. Ind., 175, ♂  
Phakia, Kumaon Div., 10,700 ft., 3-vi-09 [*Imms*]. *Type* in Indian Museum.
- defectus** Brun., Rec. Ind. Mus. IV, 280, ♂ (1911).  
*Id.*, Fauna Brit. Ind., 176, ♂  
Kurseong, 13-viii-07 [*Paiva*]. *Type* in Indian Museum, a unique specimen.
- nigripennis**, *id.*, Rec. Ind. Mus. IX, 256, ♀ (1913).  
Senchal, Darjiling, 8000 ft., v-13. *Type*, a unique ♀ in inferior condition, in Indian Museum.

### **Dilophus**, Mg.

- Illig. Mag. II, 264 (1803).  
Sch., F. Austr. II, 355: Brun., Fauna Brit. Ind., 176: *Auctt.*  
GENOTYPE, *D. febrilis* L., designated by Latreille.  
*Acanthocnemis*, Blanchard, Gay's Hist. fis. polit. Chile. Zool. VII, 355 (1852).  
GENOTYPE, unknown to present author.
- gratiosus** Big., Jour. Asiat. Soc. Beng. LIX, 265, ♂ ♀ (1890).  
Brun., Rec. Ind. Mus. IV, 280, redescr. ♂ ♀: *id.*, Fauna Brit. Ind., 178, ♂ ♀, fig. 19, var. chars.  
Dharamsala, W Himalayas, ix-1890, *type* ♂ ♀ *in cop.* [*Major Sage*]; Kurseong, 24-vi-10; Theog., 2-v-07; Phagu, 11-v-09 [both *Annandale*]; Bhowali, Kumaon, 5700 ft., 20-vi-10; vii-1909 [both *Imms*]; Darjiling, 21-iv-10 [*Beebe*]; Sadon, Upper Burma, 5,000 ft., 2-ii-11, at light; Amangarh, Central India, 24-ii-10. Also occurs in Yunnan, S. China. *Types* in Ind. Mus.
- nigriventris** de Meij., Tijd. v. Ent. LVI, 327, ♀ (1913).  
Nongkodjadjar, Java, i [*Jacobson*]. *Type*, a unique ♀, in Amsterdam Museum.

### Family SIMULIIDAE.<sup>1</sup>

#### **Simulium**, Latr.

- Hist. Nat. Crust. Ins. III, 426 (1802); XIV, 294 (1805).  
Sch., F. Austr. II, 363 (*Simulia*): Brun., Rec. Ind. Mus. IV, 282, tab. orient. spp.: *id.*, Fauna Brit. Ind., 182, fig. 23, early stages.

<sup>1</sup> For family characters *v.* Sch., F. Austr. II, xvii and Brun., Fauna, 182.

*Simulium* et *Simulia*, Auctt.

*Atractocera*, Mg., Klass. I, 94 (1804).

GENOTYPE, *S. reptans* Mg., as designated by Zetterstedt. Coquillett suggests *columbaczensis* Schoub. (*Culex id.*), but *reptans* is most generally accepted.

**indicum** Becher, Jour. Asiat. Soc. Beng. LIII, 199, ♀, pl. xiv, var. chars (1884).

Brun., Rec. Ind. Mus. IV, 286, notes and *neotype* ♂ described.

*Id.*, Fauna Brit. Ind., 191, ♂ ♀, figs. 24, 25, var. chars.

Simla, 24-iv-07 [*Annandale*]; Darjiling, 12-viii-09 [*Jenkins*]; Kurseong, 10—26-ix-09 [*Lynch*]; Bamon and Thadier (3500 ft.); Tons Valley, N.W. Himalayas [*C. W. Rogers*]; Sylhet, 2-iii-05, 18-iv-05 [*Hall*]; Bombay, 25-xi-09 (*neotype*); Khasi Hills; Ukhrul, Manipur [*Pettigrew*].

*Neotype* ♂ in Indian Museum. Location of original type unknown to present author, probably no particular specimen selected as such from the series, all of which were females. Specimens from Rotung taken on the Abor Expedition, xii-1911 and 6-i-12 are probably this species.

**nobile** de Meij., Tijd. v. Ent. L, 206, ♂ (1907).

Semarang, iii [*Jacobson*]. *Type*, a unique ♂, in Amsterdam Museum.

**rufithorax** Brun., Rec. Ind. Mus. IV, 282, ♂ ♀ (1911).

*Id.*, Fauna Brit. Ind., 187, ♂ ♀

Kanara, Bombay, viii-07 (*type* ♂); Karwar, Bombay, viii-07; Kurseong, 10—26-ix-09 [*Lynch*]; 7-ix-09 (*type* ♀) [*Annandale*].

*Type* ♂ in Pusa collection, *type* ♀ in Indian Museum.

**grisescens** Brun., Rec. Ind. Mus. IV, 283, ♂ (1911).

*Id.*, Fauna Brit. Ind., 188, ♂

Kurseong, 10—26-ix-09 [*Lynch*]. *Type* in Indian Museum, a unique specimen.

**metatarsale** Brun., Rec. Ind. Mus. IV, 284, ♂ (*metatarsalis*) (1911).

*Id.*, Fauna Brit. Ind., 189, ♂

Kurseong, 28-iii-10 [*Annandale*]. *Type*, a unique ♂, in Indian Museum.

**griseifrons** Brun., Rec. Ind. Mus. IV, 285, ♀ (1911).

*Id.*, Fauna Brit. Ind., 190, ♀

Kalighat, Kumaon (6000 ft.), 4-vi-10 [*Imms*]. *Type*, a unique ♀, in Indian Museum.

**rufibasis** Brun., Rec. Ind. Mus. IV, 285, ♀ (1911).

*Id.*, Fauna Brit. Ind., 190, ♀

Kurseong, 18-vi-10 [*Annandale*]. *Type*, a unique ♀, in Indian Museum.

**aureohirtum** Brun., Rec. Ind. Mus. IV, 287, ♂ ♀ (1911).

*Id.*, Fauna Brit. Ind., 194, ♂ ♀ : de Meij., Tijd. v. Ent. LVI, 331.

Umling, Assam, iii-07 (including *type* ♂); Kanara, Bombay.

viii-07 (including *type* ♀); Kurseong, 6-ix-09; Gunung Gedeh, Java, iii [*Jacobson*]. *Types* in Pusa collection.

**senile** Brun., Rec. Ind. Mus. IV, 288, ♂ (*senilis*) (1911).

*Id.*, Fauna Brit. Ind., 191, ♂

Phagu, 8-v-07 [*Annandale*]. *Type*, a unique ♂, in Indian Museum.

**striatum** Brun., Spol. Zeyl. VIII, 90, ♂, pl., var. chars. (1912).

*Id.*, Fauna Brit. Ind., App. 561, ♂: Patton and Cragg, Text Bk. Med. Ent. 172, pl. xxxii, 1-4, var. chars.

Peradeniya, vii-1911 (*type*), xiii-10, 2-vi-19 [*Green and Gravely*].

Kodaikanal, S. India, 6000 ft., very common, breeding in hill streams.

**eximium** de Meij., Tijd. v. Ent. LVI, 330, ♂ ♀ (1913).

Nongkodjadjar, Java, i [*Jacobson*]. *Types* in Amsterdam Museum.

**atratum**, *id.*, *loc. cit.*, 331, ♂ ♀ (1913).

Gunung Gedeh, Java, iii [*Jacobson*]. *Types* in Amsterdam Museum.

**argyrocinctum**, *id.*, *loc. cit.*, 332, ♂ ♀ (1913).

Gunung Gedeh, Java, iii [*Jacobson*]. *Types* in Amsterdam Museum.

**iridescens**, *id.*, *loc. cit.*, 333, ♂ ♀ (1913).

Nongkodjadjar, Java, i [*Jacobson*]. *Types* in Amsterdam Museum.

#### Family CHIRONOMIDAE.<sup>1</sup>

In the Chironomidae, a family with which I am but poorly acquainted, it has been my endeavour to steer an intermediate course between the broader view as instanced by Dr. Kertész (Catalogue, 1902), and the narrower one followed by Dr. Kieffer. The former sinks in *Ceratopogon* many groups (*Culicoides*, *Palpomyia*, *Sphaeromyias*, etc.), that are regarded by the latter as generic, some of which have yet again been subdivided into further genera. The exact amount of pubescence on the wing, the degree of incrassation of the femora, also the presence thereon or absence of small spines or spinules, are all characters liable to vary much in degree, so that drawing a hard and fast generic line between the groups becomes increasingly difficult as a greater number of species are discovered.

In admitting *Sphaeromyias*, *Serromyia*, *Heteromyia* and *Bezzia* to generic rank I follow Coquillett (1910), but though that author admits *Culicoides* as generically distinct from *Ceratopogon*, I have been unable to sufficiently differentiate them to do more than list the species of the different groups herein regarded as subgeneric, according to the views of their authors.

Professor Kieffer, in describing many of his new species, has

<sup>1</sup> A number of Indian Museum *types* in this family are still with Prof. Kieffer, but communication with Germany being interrupted by the present war, these *types* are entered in this catalogue as "belonging to the Indian Museum."

not specified any individual as actual *type*, so that in cases where the species has been described from several specimens these are herein designated as paratypes, each being regarded as of equal value.

Subfamily CERATOPOGONINAE.<sup>1</sup>

*Calyptopogon*, Kieff.

Mem. Ind. Mus. II, 209 (1910).

GENOTYPE, *C. albitarsis* Kieff., sp. nov.

*gibbosa*<sup>2</sup> Wied., Anal. entom., 10 (*Macropeza*) (1824).

*Macropeza gibbosa*, *id.*, Auss. Zweifl. I, 20: Macq., Hist. Nat. Dipt. I, 69: de Meij., Tijd. v. Ent. L, 216; LVI, 337.

*Macropeza javanensis*, Kieff., Mem. Ind. Mus. II, 210, *nom. nov.* for *gibbosa* de Meij. (1910).

? *Macropeza javanensis*, Edwards, Ann. Mag. Nat. Hist. (8), XII, 202.

"Ostindien" [*Wied.*], Semarang, i [*Jacobson*]; Peradeniya, ii-1912. *Type* in Copenhagen Museum.

<sup>1</sup> For characters and table of genera *v.* Kieff., Gen. Ins., Fasc. 42, p. 44; also (for table of genera), *id.*, Rec. Ind. Mus. IX, 161 (Culicoidinae).

<sup>2</sup> The synonymy of these two species is somewhat confused, owing to erroneous conceptions. Wiedemann described *gibbosa* as entirely black with the front part of the thorax projecting strongly over the head. He then says, "Vorderste Beine" yellow with black tips; "hintere" lengthened, whitish, etc. Did Wiedemann by "beine" mean *legs* or *feet* (i.e. *tarsi*)? "Legs" would be correct, and consistent with his general use of the term. De Meijere adopts this view in his redescription (Tijd. v. Ent. L, 216), giving the legs as reddish-yellow, with knees and extreme tips of tibiae, also last joint of all the tarsi, black.

In the common Indian species, of which the Indian Museum has a dozen specimens, and which I had always regarded (prior to Kieffer setting up *albitarsis*) as *gibbosa* (interpreting "beine" for once as "feet" [*tarsi*] and not "legs"), the femora and tarsi are black or dark brown—irrespective of a little paleness at the bases of one or more pairs in individual specimens; the front tarsi are normally yellow, but may occasionally vary from light brown to nearly white, with black tips; the posterior tarsi are white or whitish, the hind pair generally the whitest, all with narrowly black tips. This species has the conspicuous, conically produced shining black thorax and wholly black body attributable to *gibbosa*.

The erection of *Calyptopogon* and *albitarsis* first caused me to doubt this identification of *gibbosa*, as Kieffer described as *albitarsis* the common Indian species I had regarded as *gibbosa*. He mistranslates the older author's species thus: "anterior and middle feet yellow with black tips; posterior feet whitish." He wrongly employs the terms "anterior" and "posterior" for "fore" and "hind": because whether Wiedemann meant legs or tarsi in this particular instance, he certainly by "vorderste" alluded to the front pair only. The colour of the middle tarsi may well vary from yellow to white. He concludes that Meijere's identification of *gibbosa* from Java is incorrect assuming that as he (Meijere) retained the species in *Macropeza*, the thorax could not be conically produced, but must be as in normal species of that genus. He renamed Meijere's species "*javanensis*." As I pointed out elsewhere (Rec. Ind. Mus. VIII, 150) Meijere could not have failed to note Wiedemann's very distinct description of the peculiarly shaped thorax, so that, whatever his *species* might be, Meijere's "*gibbosa*, Wied." must at least be a *Calyptopogon*.

Mr. Edwards notes (Ann. Mag. Nat. Hist. [8], XII, 202, 1913) a specimen each of two species from Ceylon: (1), "*javanensis* Kieff. (*gibbosa* Meij. *nec* W.)," with *dull brown* thorax only slightly and bluntly produced forwards, and with *yellow* femora and tibiae; and, (2), "*gibbosa*, W. (*albitarsis*, Kieff.)," with shining black, sharply and conically produced thorax, and *black* femora and tibiae.

**albitarsis** Kieff., Mem. Ind. Mus. II, 209, ♀, pl. viii, 2, hind claws, 6, full ins. ♀ (1910).

Kieff., Rec. Ind. Mus. VI, 124 ♂; IX, 165, note.

Brun., *loc. cit.*, VIII, 150 (note on synonymy).

*Macropeza gibbosa*, Edwards, Ann. Mag. Nat. Hist. (8), XII, 202.

Calcutta, II-viii, 27-viii, 25-ix, 3-x, 25-x, II—18-xi-07; Katihar, Bengal; Madhupur, Bengal, x; Monghyr, Bengal, 22-ix [*Jenkins*]; Damukdia Ghat, Ganges Riv., E. Bengal, at light, 30-vi; Lake Chilka, 5-iii; Puri, at light; Dibrugarh, Assam, 17—19-xi-11 [*Kemp*]; Peradeniya, x-1911, ii-1912. *Paratypes* in Indian Museum.

### **Jenkinsia**, Kieff.

Rec. Ind. Mus. IX, 165 (1913).

GENOTYPE, *J. setosipennis* Kieff., n. sp., by original designation.

**setosipennis** Kieff., *loc. cit.*, 165, ♀ (1913).

Calcutta, 17-ix-09 [*Paiva*]; Bhogaon [*Paiva*]. Two *paratypes* in Indian Museum.

### **Dasyhelia**, Kieff.<sup>1</sup>

Rec. Ind. Mus. IX, 179 (1913).

GENOTYPE, *D. halophila*, Kieff., by original designation.

His view of *gibbosa* is the same as my first impression, that it possesses black femora and tibiae.

More recently, Meijere (Tijd. v. Ent. LVI, 337) considers that both the species accepted by Edwards are distinct from the true *gibbosa*, W., and his other remarks are contingent on the view of *gibbosa* being a yellow-legged species. He notes that Kieffer's *albitarsis* must be different from *gibbosa*, as the former has wholly white tarsi; but though Kieffer actually states this, it is an error, as the paratypes returned by him to the Indian Museum all possess distinctly black tips to all the tarsi.

It is clear, therefore, that two species exist, one with *yellow* femora and tibiae represented by Meijere's Javan and Edwards' Ceylonese specimen (unless the *brown blunt* thorax in the latter should make it distinct, which I doubt, thinking it only a question of personal use of terms or perhaps of actual variation); and one with *black* femora and tibiae, that is Kieffer's *albitarsis*.

Therefore, if *gibbosa* has yellow legs the synonymy will be as given in this catalogue, if it has black legs and is identical with Kieffer's *albitarsis*, the synonymy will be as follows:—

1. *gibbosa*, W. (*Macropeza*).

*Calyptopogon albitarsis*, Kieff., Mem. Ind. Mus. II: Brun., Rec. Ind. Mus. VIII, 150.

*Macropeza gibbosa*, Edwards, Ann. Mag. Nat. Hist. (8), XII, 202.

2. *species sine nom.* (with *yellow* femora and tibiae).

*Macropeza gibbosa*, de Meij., Tijd. v. Ent. L, 216.

*Macropeza javanensis*, Edwards, Ann. Mag. Nat. Hist. (8), XII, 202.

Only a reference to the type of *gibbosa* can decide the exact identity of the species.

<sup>1</sup> In Dr. Kieffer's table of genera (Rec. Ind. Mus. IX, 161), *Dasyhelia* falls in two of his principal divisions; his subgenus *Kempia* in that of "empodium well developed"; the subgenus *Prokempia* in that of "empodium atrophied." All the species seem characterised by pubescent eyes.

**ornaticornis** Kieff., Rec. Ind. Mus. IX, 180, ♀ (subgen. *Prokempia*) (1913).

Puri, 13-ix [*Kemp*]. Three *paratypes* in alcohol in Ind. Mus.

**longicornis**, *id.*, *loc. cit.*, 180, ♀ (subgen. *Prokempia*) (1913).

Katihar, Bengal, 24-ix [*Paiva*]. Several *paratypes* in alcohol in Indian Museum.

**minima**, *id.*, *loc. cit.*, 181, ♂ (subgen. *Prokempia*) (1913).

Calcutta, 29-i-10 [*Annandale*]. Two *paratypes* in Ind. Mus.

**calcuttensis**, *id.*, *loc. cit.*, 181, ♀ (subgen. *Kempia*) (1913).

Calcutta, 20-viii-07 [*Annandale*]. *Type* in Indian Museum, much damaged, unique.

**perplexa**, *id.*, *loc. cit.*, 182, ♀ (subgen. *Kempia*) (1913).

Calcutta, 20-viii-07. *Type* in Indian Museum, unique.

### Ceratopogon, Mg.

Illig. Mag. II, 261 (1803).

Sch., F. Aust. II, 574: Kieff., Gen. Ins., Fasc. 42, 48: *id.*, Mem. Ind. Mus. II, 182, tab. Ind. spp.: *id.*, Rec. Ind. Mus. VI, 321, tab. spp. nov.: GENOTYPE, *C. communis* Mg., as *Tipula barbicornis*, F.

*Forcipomyia*, Mg., Syst. Besch. 1st Ed. I, 73 (1818):

de Meij., Tijd. v. Ent. L, 208, tab. sp. nov.

GENOTYPE, *Ceratopogon ambiguus* Mg., by Coquillett's designation.

*Apogon*, Rond., Dipt. Ital. Prod. I, 175 (1856).

GENOTYPE, *Ceratopogon flavipes* Mg., as *hortulanus* Mg., by original designation.

*Labidomyia*, Steph., Cat. Brit. Ins. II, 239 (1829).

GENOTYPE, *Tipula bipunctata* L., by Westwood's designation.

### Ceratopogon, sensu lato.

**trichopus** Thoms., Eugen. Resa, 444 (1869).<sup>1</sup>

China. *Type*, location unknown to present author.

**agas** Rond., Ann. Mus. Gen. VII, 462 (1865).

Borneo. *Type* (presumably) in Genoa Museum.

**lignicola** Brun., Rec. Ind. Mus. VII, 445, ♂ (1912).

Thano, Dehra Dun, W. Himalayas, 1500 ft., 9-ii-12 [*Imms*].

*Type* in Indian Museum; *co-types* in Forest Zoology coll., Dehra Dun.

### Sub-genus *Ceratopogon*, sensu stricto.

**hirtipes** de Meij., Tijd. v. Ent. L, 209, ♂ ♀ (1907).

Semarang [*Jacobson*]; Tosari [*Kobus*], both Java; Peradeniya, 17-xi-11; i-12. *Types* in Amsterdam Museum.

<sup>1</sup> This species is retained here because it figured in Van der Wulp's Catalogue, but it may more properly belong to the Palaearctic Fauna.

- jacobsoni**, *id.*, *loc. cit.*, L, 212, ♂ ♀ ; pl. v, 8, 9, wing, ♂ ♀ (1907).  
Semarang, i [*Jacobson*]; Peradeniya i-12 "attracted by alcohol." *Types* in Amsterdam Museum.
- stimulans**, *id.*, *loc. cit.*, LII, 197, ♀ , pl. xii, 12 (1909): *id.*, *loc. cit.*, LVI, 334.  
Sumatra [*Sahn*]; Semarang, vi [*Jacobson*]. *Type* in Amsterdam Museum.
- salmi**, *id.*, *loc. cit.*, 197, ♂ ♀ , pl. xii, 3—6 (1909).  
Sumatra [*Sahn*]. *Type* in Amsterdam Museum.
- auronitens** Kieff., Mem. Ind. Mus., II, 183, ♂ , pl. xi, 12, wing (1910).  
Base of Dawna Hills, 2-iii-08 [*Annandale*]. Unique *type* in Indian Museum.
- macrorhynchus**, *id.*, *loc. cit.*, 183, ♂ , pl. ix, 3, mouth and palpi, 8, antenna, pt. (1910).  
Calcutta, vii-07 [*Annandale*]. *Type* belonging to Indian Museum.
- albonotatus**, *id.*, *loc. cit.*, 185, ♂ , pl. viii, 10, wing, (1910).  
Calcutta, 3-vi-08 [*Annandale*]. Unique *type* in Indian Museum.

Subgenus **Atrichopogon**, Kieff.

- Gen. Ins., Fasc. 42, 53 (1906).  
Kieff., Rec. Ind. Mus. IX, 174, notes, tab. Ind. spp.  
GENOTYPE, *Ceratopogon exilis* Coq., by designation of Coquillett, 1910.
- indianus** Kieff., Mem. Ind. Mus. II, 185, ♂ (1910).  
Calcutta Zoolog. Gardens, viii [*Annandale*]. Unique *type* in Indian Museum.
- rivicola** Kieff., Rec. Ind. Mus. VI, 324, ♀ (1911).  
Barogh, Simla, 10-vi-10 [*Annandale*]; Darjiling, 24-ix [*Brunetti*]. Three *paratypes* in Indian Museum.
- flaviceps** Kieff., Supp. Ent. Berl. I, 28 (1912).  
Formosa.
- xanthopus**, *id.*, Rec. Ind. Mus. IX, 175, ♀ (1913).  
Lake Chilka, 4-iii-10 [*Annandale*]. Unique *type* in Indian Museum.
- flavipalpis**, *id.*, *loc. cit.*, 175, ♂ ♀ (1913).  
Rajmahal, Bengal, 5-vii-09, *type* ♂ [*Annandale*]; Adra, Manbhumi Dist., Chota Nagpur, 12-x-09, *type* ♀ [*Jenkins*]. Unique *types* in Indian Museum.
- origenus**, *id.*, *loc. cit.*, 176, ♀ (1913).  
Kurseong, 9-ix-09 [*Annandale*]. Unique *type* in Indian Museum.

**sublimatus**, *id.*, *loc. cit.*, 176, ♀ (1913).

Kurseong, 6-ix-09 [*Annandale*]. Unique *type* in Indian Museum.

**flavellus**, *id.*, *loc. cit.*, 177, ♂ ♀ (1913).

Maddathorai, Travancore, 18-xi; Bangalore, S. India, 3000 ft. [*Annandale*]; Dawna Hills, 1-iii-08 [*Annandale*]. Three *paratypes* in Indian Museum.

**spurius**, *id.*, *loc. cit.*, 177, ♀ (1913).

Madhupur, Bengal, 15-x-09 [*Paiva*]. Unique *type* in Indian Museum.

**aterrimus**, *id.*, *loc. cit.*, 178, ♀ (1913).

Darjiling, 8-viii-09 [*Jenkins*]. Unique *type* in Indian Museum.

**setosipennis**, *id.*, *loc. cit.*, 178, ♀ (1913).

Madhupur, Bengal, 16-x-09 [*Paiva*]. Unique *type* in Indian Museum.

**brevistilus**, *id.*, *loc. cit.*, 178, ♀ (1913).

Kurseong, vii [*D'Abreu*]. Unique *type* in alcohol in Indian Museum.

#### Subgenus **Prohelia**, Kieff.

Rec. Ind. Mus. VI, 319 (1911).<sup>1</sup>

GENOTYPE, *Ceratopogon decipiens* Kieff., by present designation.

? *Oecacta* Poey., Mem. Hist. Nat. Cuba, I, 236 (1851).<sup>2</sup>

**decipiens** Kieff., Mem. Ind. Mus. II, 182, ♂, pl. xi, 10, wing (*Ceratopogon*) (1910).

*Id.*, Rec. Ind. Mus. VI, 321 (*Prohelia*).

Simla, v [*Annandale*]. Unique *type* in Indian Museum.

**cubicularis** Kieff., Rec. Ind. Mus. VI, 320, ♂ (1911).

Kurseong, in bedroom, 23-vi-10 [*Annandale*]. Two *paratypes* in Indian Museum.

<sup>1</sup> A little confusion may occur here. In Rec. Ind. Mus. VI, 319 (December 1911), the genus is characterised, but no species is quoted as type. The first species mentioned is "*tetraclada* Kieff." (not described as new), and this is followed by two new species and by *decipiens* Kieff. described in 1910. Now in the Spolia Zeylanica VIII, 1, published January 1912, *Prohelea* is noted as a new subgenus, and *tetraclada* (described for the first time) is the second of five species described as new. On the face of it, it would appear as if the paper in the Spolia Zeylanica had been *written* first, but any way, that in the Rec. Ind. Mus. was undoubtedly *published* first, and therefore the correct original reference to the *genus* must be that of that journal. Following on this reasoning, the type must be either *decipiens* (a previously described species) or one of the two described as new (*cubicularis* and *himalayae*). I propose *decipiens* as genotype on account of being the first described of the species now referred to *Prohelea*. Of course for the two new *species* described in the Spolia paper the original references will be that journal.

<sup>2</sup> Coquillett gives this latter genus as synonymous with *Culicoides* Latr., with *O. furens* Poey, as genotype.



**himalayae**, *id.*, *loc. cit.*, 320, ♂ (1911).

Kurseong, 22-vi-10, in bedroom [*Annandale*]. Unique *type* in Indian Museum.

**ornaticrus** Kieff., *Spol. Zeyl.* VIII, 1, ♀ (1912).

Peradeniya, 9 and 11-viii-10. Two *paratypes* in Indian Museum.

**calcarata** Kieff., *Spol. Zeyl.* VIII, 3, ♀ (1912).

Peradeniya, 2-vi-10. Unique *type* in Indian Museum.

**noctivaga**, *id.*, *loc. cit.*, 3, ♀ (1912).

Peradeniya, 19-ix-10, at light. Two *paratypes* in Indian Museum.

**theobromae**, *id.*, *loc.*, *cit.*, 3, ♀, fig. 1, antenna, pt. (1912).

Peradeniya, 6-vi-10, bred from larvae in decomposed fruit of *Theobroma cacao* L. [*Gravelly*].

**tetraclada**, *id.*, *loc. cit.*, 2, ♀ (1912).

*Id.*, *Rec. Ind. Mus.* VI, 320 (1911).<sup>1</sup>

Peradeniya, 23-v-10, *type*; Kurseong, 23-vi-10 [*Annandale*]. *Type* in Indian Museum.

#### Subgenus **Forcipomyia**, Meg. in Mg.<sup>2</sup>

*Syst. Besch.*, 1st Ed., I, 73 (1818).

Kieff., *Gen. Ins.*, Fasc. 42, 52: *id.*, *Rec. Ind.*

*Mus.* VI, 321 and IX, 166, tab. *Ind. spp.*

GENOTYPE, *Ceratopogon ambiguus* Mg., by Coquillett's designation, 1910.

**vexans** de Meij., *Tijd. v. Ent.* LII, 198, ♂ ♀, pl. xii, 7-10 (1909).

Sumatra [*Dr. Salm*]. *Type* in Amsterdam Museum.

There is a *Ceratopogon vexans*, Staeg, 1839.

**albosignata** Kieff., *Mem. Ind. Mus.* II, 184, ♂ (*Ceratopogon*) (1910).

Rangoon, 24-ii-08, *type* [*Annandale*]. *Type* (pinned) in Indian Museum, also *cotypes* in alcohol.

var. **asticta** Kieff., *Rec. Ind. Mus.* IX, 172, ♀ (1913).

Kurseong, vii [*D'Abreu*]. *Type* in Indian Museum.

var. **variicrus**, *id.*, *loc. cit.*, 172, ♂ (1913).

Port Canning, 5-ii [*Annandale*]. Unique *type* in Indian Museum.

**calotricha** Kieff., *Rec. Ind. Mus.* VI, 322, ♀; pl. xiv, 1 wing, pt. (1911).

Kurseong, 22-vi-10, in bedroom [*Annandale*]. Unique *type* in Indian Museum.

<sup>1</sup> When mentioned in this periodical *tetraclada* was a *nomen nudum*: see footnote 1 on previous page.

<sup>2</sup> De Meijere regards *Forcipomyia* as a subgenus of *Ceratopogon*; Coquillett sinks it in *Culicoides*.

- montivaga**, *id.*, *loc. cit.*, 322, ♀ (1911).  
Darjiling, 28-v-10 [*Brunetti*]. Unique *type* in Indian Museum.
- alticola**, *id.*, *loc. cit.*, 323, ♀ (1911).  
Darjiling, 8-v-10 [*Annandale*]. Unique *type* in Indian Museum.
- oriphila**, *id.*, *loc. cit.*, 324, ♀ (1911).  
Darjiling, 29-v-10 [*Brunetti*]. *Type* in Indian Museum.
- macrothrix**, *id.*, *loc. cit.*, 325, ♀ (1911).  
Kurseong, 20-vi-10 [*Annandale*]. *Type* in Indian Museum.
- var. **flaviceps**, *id.*, *loc. cit.*, IX, 173, ♀ (1913).  
Kurseong, vii [*D'Abreu*].  
Kieffer also describes, (*l. c.* 172) a further, unnamed variety from Kurseong, 4-vii [*Annandale*]: two specimens being in the Indian Museum.
- urbicola** Kieff., Rec. Ind. Mus. VI, 325, ♂ (1911).  
Kurseong, 22-vi-10 [*Annandale*]. *Type* (pinned) in Indian Museum, also *cotypes* in alcohol.
- xanthophila**, *id.*, *loc. cit.*, 326, ♀ (1911).  
Kurseong, 13—16-viii-07 [*Annandale*]. Unique *type* in Indian Museum.
- longicalcar** Kieff., Spol. Zeyl. VIII, 4, ♀, fig. 2, wing (1912).  
Peradeniya, 20-v-10. Unique *type* in Indian Museum.
- semipilosus** Kieff., *loc. cit.*, 5, ♀ (1912).  
Peradeniya, 4-vii-10. Unique *type* in Indian Museum.
- sauteri** Kieff., Supp. Ent. Berl. I, 27 (1912).  
Formosa.
- conifera** Kieff., Rec. Ind. Mus. IX, 168, ♂ (1913).  
Giridih, Bengal, 7-xi [*Kemp*]. Unique *type* in alcohol in Indian Museum.
- trinotata**, *id.*, *loc. cit.*, 169, ♂ ♀ (1913).  
Naini Tal [*Lloyd*]; Simla, 9-v [*Annandale*]; Kurseong, 4-vii; 5-ix [*Annandale*]. Three *paratypes* in Indian Museum.
- tristicta**, *id.*, *loc. cit.*, 169, ♂ (1913).  
Kurseong, 6-iii [*Annandale*]. *Type* belonging to Indian Museum.
- psychasta**, *id.*, *loc. cit.*, 170, ♂ ♀ (1913).  
Kurseong, 4-vii-08, *type* ♂ ♀ [*Annandale*]. Unique *types* in Indian Museum.
- confluens**, *id.*, *loc. cit.*, 170, ♀ (1913).  
Kurseong, vii [*D'Abreu*]. Two *paratypes* in alcohol in Indian Museum.
- monticola**, *id.*, *loc. cit.*, 171, ♂ (1913).  
Kurseong, 4-vii-08 [*Annandale*]. *Type* in Indian Museum.
- heterocera**, *id.*, *loc. cit.*, 173, ♀ (1913).  
Darjiling, 8-viii-09 [*Paiva*]. Unique *type* in Indian Museum.

Subgenus **Culicoides**, Latr.

Gen. Crust. et Ins. IV, 251 (1809).

Kieff., Gen. Ins., Fasc. 42, 53: *id.*, Mem. Ind. Mus. II, 186, tab. Ind. spp.: Annand., Rec. Ind. Mus. IX, 246, notes on four Indian blood-sucking species.GENOTYPE, *Culex pulicarius* L. (as *punctata*, sp. nov.) by original designation.

- guttifer** de Meij., Tijds. v. Ent. L, 209, pl. v, 6, wing (1907).  
Semarang, 1 [Jacobson]. Unique type in Amsterdam Museum.
- pungens**, *id.*, *loc. cit.*, LII, 200, pl. xii, 11, 12 (1909).  
Sumatra. Type in Amsterdam Museum.
- brevimanus** Kieff., Mem. Ind. Mus. II, 187, ♀ (1910).  
Calcutta, 20-viii-07 [Annandale]. Unique type in Indian Museum.
- macrostoma**, *id.*, *loc. cit.*, 188, ♂ ♀, pl. viii, 4, wing; pl. vi, 14, mouth parts (1910).  
Calcutta, ii-08 [Annandale]. Unique type now completely destroyed.
- montivagus**, *id.*, *loc. cit.*, 188, ♂, pl. viii, 3, wing (1910).  
Simla, 11-v-08 [Annandale]. Two paratypes in Indian Museum.
- opacus**, *id.*, *loc. cit.*, 189, ♂ ♀, pl. xi, 3, antenna ♀ (1910).  
Calcutta, 6—7-ii-08 [Annandale]. Three paratypes in Indian Museum.
- scapularis**, *id.*, *loc. cit.*, 189, ♂ ♀ (1910).  
Calcutta, var. dates in January [Annandale]. Several paratypes in Indian Museum.
- nitidulus**, *id.*, *loc. cit.*, 189, ♀ (1910).  
Calcutta, ii, vi, vii [Annandale]; base of Dawna Hills, iii. Several paratypes in Indian Museum.
- quadrilobatus**, *id.*, *loc. cit.*, 189, ♂ ♀, pl. ix, 2, 4, 9, 12, pl. x, 8, 10, var. chars. (1910).  
Calcutta Zoolog. Gardens, 25-viii-07 [Annandale]. Types in Indian Museum in Canada balsam.
- setiger**, *id.*, *loc. cit.*, 190, ♂ ♀, pl. x, 1, 2, 3, var. chars. (1910).  
Calcutta, 16-vii-07. Types belonging to Indian Museum.
- peregrinus**, *id.*, *loc. cit.*, 191, ♀, pl. viii, 1, wing (1910).<sup>1</sup>  
Puri, 24-ii-08, 2-iii-08 [Paiva]. Three paratypes in Indian Museum.

<sup>1</sup> See Annandale, Rec. Ind. Mus. IX, 246, for blood-sucking notes.

- molestus**, *id.*, *loc. cit.*, 192, ♂ ♀, pl. viii, 9, wing (1910).  
*Id.*, Rec. Ind. Mus. IX, 183, ♀, notes.  
 Calcutta Zoolog. Gardens, 24-viii-07 [*Annandale*]; Kurseong,  
 vii [*D'Abreu*]. *Type* in alcohol in Indian Museum.
- paivai** Kieff., Mem. Ind. Mus. II, 193, ♀, pl. viii, 5 (1910).  
 Puri, Orissa, 2-iii-08 [*Paiva*]. *Unique type* in Indian Museum.
- oxystoma**, *id.*, *loc. cit.*, 193, ♀, pl. ix, 1, mouth, palpi (1910).  
 Calcutta Zoolog. Gardens, 25-viii-07 "attacks oxen and deer"  
 [*Annandale*]. *Type* in Indian Museum in Canada balsam.
- himalayae** Kieff., Rec. Ind. Mus. VI, 326, ♂ ♀ (1911).  
 Kurseong, 22-vi-10 [*Annandale*]. *Three paratypes* in Indian Museum.
- pictiventris**, *id.*, *loc. cit.*, 327, ♀ (1911).  
 Tonglu, Darjiling District, 22-iv-10 [*Beebe*]. *Unique type* in Indian Museum.
- formosae** Kieff., Supp. Ent. Berl. I, 29 (1912).  
 Formosa.
- indecora**, *id.*, *loc. cit.*, 29 (1912).  
 Formosa.
- ceylanicus** Kieff., Spol. Zeyl. VII, 5, ♀ (1912).  
 Peradeniya, 25-vi-10. *Unique type* in Indian Museum.
- bilobatus**, *id.*, *loc. cit.*, 6, ♂ (1912).  
 Peradeniya, 14-v-10. *Unique type* in Indian Museum.
- xanthocoma** Kieff., Rec. Ind. Mus. IX, 182 ♂ (1913).  
 Puri, Orissa, 13-xi [*Kemp*]. *Unique type* in alcohol in Indian Museum.
- kiefferi** Patton, Ind. Jour. Med. Res. I, 336, ♂ ♀, pl. xviii, var. chars. (1913).  
 Madras, Nov. to March; Coimbatore [*Fletcher*].

### Palpomyia, Meg. in Mg.

- Syst. Besch. 1st Ed. I, 82 (1818).  
 Kieff., Gen. Ins., Facs. 42, 61: *id.*, Mem. Ind. Mus. II, 194 and Rec. Ind. Mus. VI, 113; IX, 187, tab. Ind. spp.  
 GENOTYPE, *Ceratopogon flavipes* Mg.
- crassinervis** de Meij., Tijd. v. Ent. L, 213, pl. v, 10, wing (1907).  
 Semarang, 1 [*Jacobson*]. *Type* in Amsterdam Museum.
- dicolor**, *id.*, *loc. cit.*, 214 (1907).  
 Semarang, 1 [*Jacobson*]. *Type* in Amsterdam Museum.
- luteinervis**, *id.*, *loc. cit.* 214, pl. v, 11, wing (1907).  
 Semarang, 1 [*Jacobson*]. *Type* in Amsterdam Museum.

**burmae** Kieff., Mem. Ind. Mus. II, 196, ♀ (1910).

Base of Dawna Hills, 1-iii-08 [*Annandale*]. Type in Indian Museum.

**filicornis**, *id.*, *loc. cit.*, 196, ♀; pl. x, 4—7, 9, var. chars. (1910).

Calcutta, 16-vii-07 [*Annandale*]. Type belonging to Indian Museum.

**cinerea** *id.*, *loc. cit.*, 197, ♀ (1910).

Rajmahal, Bengal, 3-vii-07. Unique type in Indian Museum.

**pulchripes**, *id.*, *loc. cit.*, 198, ♀, pl. xi, 8, wing (1910).

Calcutta, 13-viii-07; Purneah, 6-viii-07. Paratypes in Indian Museum.

**pictipes**, *id.*, *loc. cit.*, 199, ♀ (1910).

Calcutta, 15-viii-07; 13-x [*Annandale*]; Katihar, 4-viii-07. Two paratypes in Indian Museum.

**interrupta**, *id.*, *loc. cit.*, 199, ♀, pl. xi, 16, front tarsi claws (1910).

Calcutta, 10—27-vii-07; 27-viii-07. Several paratypes in Indian Museum.

**inaequalis**, *id.*, *loc. cit.*, 200, ♀ (1910).

Purneah, 5-viii-07. Unique type in Indian Museum.

**roseiventris** Kieff., Rec. Ind. Mus. VI, 114, ♀ (1911).

Calcutta, 28-viii-07. Unique type in Indian Museum.

**leucopogon**, *id.*, *loc. cit.*, 114, ♂ (1911).

Calcutta, 1-x-07. Unique type in Indian Museum.

**disticta**, *id.*, *loc. cit.*, 115, ♀, pl. vi, 1, wing (1911).

Calcutta, 3-ix, at light [*Paiva*]; 27-viii, 5-ix, 31-x-07; Dum Dum, near Calcutta, 28-vii [*Lord*]; Madhupur, Bengal, x, at light; Khustea, Bengal, x [*Jenkins*]; Jalpaiguri, N. Bengal, ix, at light; Bhogaon, Purneah, 2-x [*Paiva*]; Chennia, Sunderbunds, Bengal, xi, at light on board launch [*Jenkins*]; Allahabad, viii [*Lord*]. Several paratypes in Indian Museum.

**tetrasticta**, *id.*, *loc. cit.*, 116, ♀ (1911).

Calcutta, 7-ix-07. Unique type in Indian Museum.

**polysticta**, *id.*, *loc. cit.*, 117, ♀ (1911).

Calcutta, 7-ix-07. Unique type in Indian Museum.

**brevispina**, *id.*, *loc. cit.*, 117, ♀ (1911).

Calcutta, 27-vii-07. Unique type in Indian Museum.

**rivularis**, *id.*, *loc. cit.*, 328, ♀ (1911).

Valley of Sutlej Riv. below Simla, 6-v-10 [*Annandale*]. Unique type in Indian Museum.

**taitana** Kieff., Supp. Ent. Berl. I, 29 (1912).

Formosa.

**albinervis** Kieff., Rec. Ind. Mus. IX, 187, ♀ (1913).

Pallode, Travancore, 15-xi [*Annandale*]. Type in Indian Museum.

**photophila**, *id.*, *loc. cit.*, 188, ♀ (1913).

Madhupur, Bengal, at light, x [*Paiva*]; Calcutta, at light, vi.  
*Type* in Indian Museum.

**abjuncta**, *id.*, *loc. cit.*, 189, ♀ (1913).

Calcutta, 14-ix, at light [*Paiva*]. *Type* belonging to Indian Museum.

**disjuncta**, *id.*, *loc. cit.*, 189, ♀ (1913).

Bhogaon, N. Bengal, x [*Paiva*]. *Type* belonging to Indian Museum.

### Sphaeromyias, Curt.

Brit. Entom., 285, pl. (1829).

*Nec Sphaeromyias*, Walk.

*Xylocrypta* Kieff., Bull Ent. Soc. Fr., 69 (1899).

GEONOTYPE of *Sphaeromyias* Curt., *Ceratopogon fasciatus*, Mg., as *albomarginatus*, sp. nov.

Kieffer's type of *Xylocrypta* is the same species.

**bisignata** Kieff., Mem. Ind. Mus. II, 200, ♀, pl. xi, 1, tarsus, part (1910).

Purneah, 5-viii [*Paiva*]. *Type* belonging to Indian Museum.

**bimacula**, *id.*, *loc. cit.*, 201, ♂, pl. xi, 5, tarsus, 7, wing (1910).

Calcutta, 14-viii; Purneah, 5-viii [*Paiva*]. *Types* belonging to Indian Museum.

**filitarsis**, *id.*, *loc. cit.*, 202, ♀, pl. xi, 9, claws (1910).

Calcutta, 3-13-viii-07. "Near *Macropeza*." *Paratypes* in Indian Museum.

**albiditarsis**, *id.*, *loc. cit.*, 203, ♀ (1910).

Calcutta. *Unique type* in Indian Museum.

**viridiventris**, *id.*, *loc. cit.*, 203, ♀, pl. viii, 8, tarsus (1910).

Dawna Hills, 1000 ft., 2-3-iii-08 [*Annandale*]. *Type* in Indian Museum, a unique specimen.

**stictonota** Kieff., Rec. Ind. Mus., VI, 118, ♂ (1911).

Calcutta (Zoolog. Gardens), 8-iii-01. *Type* belonging to Indian Museum.

**inermicrus**, *id.*, *loc. cit.*, ix, 186, ♀ (1913).

Rajmahal, Bengal, 5-vii-09 [*Annandale*]. *Type*. a unique specimen, in Indian Museum.

### Stilobezzia, Kieff.

Rec. Ind. Mus. VI, 118 (1911).

Kieff., *loc. cit.*, IX, 184, notes.

GENOTYPE, *S. festiva* Kieff., by original designation.

**festiva** Kieff., Rec. Ind. Mus. VI, 118, ♂ ♀, pl. vi, 2-6, var. chars. (1911).

Calcutta, 24-viii, 11-ix, 1--29-x. *Paratypes* in Ind. Mus.

var. *scutellaris* Kieff., Spol. Zeyl. VIII, 7, ♀ (1912).

Peradeniya, 24-v-10. Type in Indian Museum, a unique specimen.

*inermipes* Kieff., Spol. Zeyl. VIII, 8, ♀ (1911).

Peradeniya, 2-vi-10. Type in Indian Museum.

A second specimen from Ceylon (? Peradeniya) in same collection.

*lineata* Kieff., Rec. Ind. Mus. IX, 184, ♂ ♀ (1913).

Madhupur, Bengal, 13-x; 18-x [*Paiva*]; Giridih, Bengal, 7-xi [*Kemp*]; Karmatar, Bengal, 23-x [*Paiva*]. Paratypes in Indian Museum.

### *Serromyia*, Meg. in Mg.

Syst. Besch. 1st Ed. I, 66 (1918).

GENOTYPE, *Ceratopogon femorata* Mg., the original species.

*Prionomyia*, Steph., Cat. Brit. Ins. II, 237 (1829).

GENOTYPE, *Ceratopogon femoratus* Mg., by Westwood's designation.

*Ceratolophus*, Kieff., Bull. Soc. Ent. Fran. LXVIII, 69 (1899): *id.*, Gen. Ins., Fasc. 42, 59.

GENOTYPE, *Ceratopogon femoratus* Mg., by original designation.<sup>1</sup>

*Johannseniella*, Will., Jour. N.Yk. Ent. Soc. XV, 1 (1907), *nom. nov.* for *Ceratolophus* Kieff., preocc. Bocoust, 1873.

*notatus* de Meij., Tijd. v. Ent. L. 210, ♂ ♀, pl. v, 7, wing (*Ceratolophus*) (1907).

Semarang, 1 [*Jacobson*] Type in Amsterdam Museum.

Coquillett considers *Johannseniella* Will., as synonymous with *Serromyia* Mg. and I follow him.

### *Heteromyia*, Say.

Americ. Entom. II, 79 (1825).

Kieff., Gen. Ins., Fasc. 42, 64: *id.*, Rec. Ind. Mus. IX, 183.

GENOTYPE, *H. fusiatus* Say, by original designation.

*Pachyleptus*, Walk., Ins. Saund. Dipt. pt. 5, 426 (1856).

GENOTYPE, *P. fasciatus* sp. nov., *loc. cit.*

*indica* Kieff., Rec. Ind. Mus. IX, 183, ♀ (*Pachyleptus indicus*) (1913).

Maddathorai, Travancore, 17-xi-08 [*Annandale*]. Type in Indian Museum.

### *Haasiella*, Kieff.

Rec. Ind. Mus. IX, 190 (1913).

GENOTYPE, *H. semiflava*, by original designation.

<sup>1</sup> Kieffer overlooked the fact of *femoratus* having been employed as the type of *Serromyia*.

**semiflava** Kieff., *loc. cit.*, 190, ♀ (1913).

Tinpahar, Bengal, 7-vii-09 [Annandale]. *Type*, a unique ♀, in Indian Museum.

**Bezzia**, Kieff.<sup>1</sup>

Bull. Soc. Ent. Fr. LXVIII, 69 (1899).

Kieff., Gen. Ins., Fasc. 42, 57: *id.*, Mem. Ind.

Mus. II, 204 (tab. Ind. spp.) (1910).

GENOTYPE, *Ceratopogon crnatus* Mg., by Kieffer's designation.

*Probezzia*, Kieff., Gen. Ins., Fasc. 42, 57 (1906).

GENOTYPE, *Ceratopogon venusta* Mg., by Coquillett's designation.

**guttipennis** de Meij., Nova Guin. Results, 69 (1906).

Papua. *Type* in Amsterdam Museum.

**acanthopus** de Meij., Tijd. v. Ent. L, 215, ♀, pl. v, 12, wing (1907).

Semarang, i, ii, iii [Jacobson]. *Type* in Amsterdam Museum.

**flaviventris** Kieff., Mem. Ind. Mus. II, 204, ♀ (1910).

Noalpur (Nepal), 22-ii-08. *Unique type* in Indian Museum.

**gracilipes**, *id.*, *loc. cit.*, 205, ♀ (1910).

Purneah, 4-viii [Paiva]. *Two paratypes* in Indian Museum.

var. **lineola**, *id.*, *loc. cit.*, 205, ♀

Furi, January. *Type* in Ind. Mus., a unique specimen.

var. **analís** Kieff., Rec. Ind. Mus. IX, 196, ♀ (1913).

Balighai, Orissa, 24-x [Annandale]. *Type*, a unique specimen, in Indian Museum.

var. **bengalensis**, *id.*, *loc. cit.*, 196, ♀ (1913).

Madhupur, Bengal, 16-x [Paiva]. *Type*, a unique specimen, in Indian Museum.

var. **flavescens**, *id.*, *loc. cit.*, 196, ♀ (1913).

Madhupur, Bengal, 13-x [Paiva]. *Type* in Indian Museum.

**fascialis**, *id.*, Mem. Ind. Mus. II, 206, ♂, pl. viii, 11, wing (1910).

Calcutta (Zoolog. Gardens), 25-vii-07 [Annandale]. *Type* in Indian Museum, a unique specimen.

**lactepennis**, *id.*, *loc. cit.*, 206, ♀ (1910).

Calcutta, 15-viii-07, *type*; 11-viii-07, 12—13-ii-08. *Type* in Indian Museum.

An unnamed variety from Lake Chilka also described in same work. In Indian Museum.

<sup>1</sup> De Meijere ranks *Bezzia* as a subgenus of *Ceratopogon*: Coquillett (1910) admits it as a good genus.

In Kieffer's last paper (Rec. Ind. Mus. IX) he places *gracilipes*, *nigricans*, and *eucera*, with a number of new species, in the subgenus *Probezzia*, which differs from *Bezzia* in a minor and possibly variable character. All the species are incorporated herein under *Bezzia*. Even in the Genera Insectorum Kieffer lists all the species alphabetically under *Bezzia* without noting to which of the two subgenera *Probezzia* and *Bezzia*, *s. str.* each belongs.



**nigricans**, *id.*, *loc. cit.*, 207, ♀ (1910).

*Id.*, Rec. Ind. Mus. IX, 193, ♀, notes (*Probezzia*) (1913).

Noalpur, Nepal, 22-ii-08; Calcutta, 27-vii-07 [*Paiva*]; Madhupur, Bengal, 14-x-09 [*Paiva*]; Balighai, Orissa, 24-x-08, *type*; Jalpaiguri, 10-ix-09 [*Annandale*]; Shencottah, 25-x-08 and Quilon, 9-xi-08 [both Travancore and *Annandale*].

**armatipes** Kieff., Mem. Ind. Mus. II, 207, ♀ (1910).

Puri, January. The unique *type* is now completely destroyed.

**rufiventris**, *id.*, *loc. cit.*, 208, ♀ (1910).

Calcutta, 10-viii-07 [*Annandale*]. *Type*, a unique specimen, in Indian Museum.

**trispinosa** Kieff., Rec. Ind. Mus. VI, 123, ♀, pl. vi, 9, antenna (1911).

Calcutta, 31-vii-07. *Type* belonging to Indian Museum.

**eucera**, *id.*, *loc. cit.*, 123, ♀, pl. vi, 10, antenna (1911).

*Id.*, *loc. cit.*, IX, 196, note.

Calcutta, 30-x-07; Trivandrum, Travancore, 14-xi-08 [*Annandale*]. *Type* technically in Indian Museum.

Described originally from the Calcutta specimen, that should be the *type*, but it is not to be found in the Indian Museum, though the Travancore specimen is there.

**albipennis** Kieff., *loc. cit.*, VI, 124, ♀ (*B. nigricans*, var. *albipennis*) (1911).

*Bezzia* (*Probezzia*) *albipennis*, Kieff., *loc. cit.*, IX, 195, ♀ (1913).

Calcutta, 10-ix-07, 26-xi; Sara Ghat, Ganges Riv., Bengal, 11-ix [*Annandale*]; Madhupur, Bengal, 16-x [*Paiva*]; Balighai, Orissa, 25-x [*Annandale*]. *Paratypes* in Indian Museum.

**vaga**, *id.*, Rec. Ind. Mus. IV, 329, ♀ (1911).

Noalpur, Nepal, 22-ii-08, *type*; Madhupur, Bengal, 18-x-09 [*Paiva*]; Igatpuri, Western Ghats, Bombay Presidency, 20-xi-09 [*Annandale*]. *Type* in Indian Museum.

**indecora**, *id.*, Spol. Zeyl. VIII, 8, ♂ (1912).

Peradeniya, 14-v-10. *Type*, unique, in Indian Museum.

**allotropica** Kieff., Rec. Ind. Mus. IX, 193, ♀ (*Probezzia*) (1913).

Frasergunge, 12-xi; Basanti, 16-xi [both Sunderbunds and *Jenkins*]; at light on board launch, Bologhatta, Khulna, Ganges Delta, 28-viii, at light on launch; Besondhur, Khulna, 29-viii [both *Jenkins*]. *Paratypes* in Indian Museum.

**hamifera**, *id.*, *loc. cit.*, 194, ♀ (*Probezzia*) (1913).

Madhupur, Bengal, 15—16-x-09, at light [*Paiva*]; Balighai, Orissa, 25-x-08 [*Annandale*]. *Paratypes* in Indian Museum.

var. **arcuatipes** Kieff., *loc. cit.*, 195, ♀ (*Probezzia*) (1913).

Noalpur, Nepal, 22-ii; Madhupur, Bengal, 14, 16 and 18-x, at light [*Paiva*]; Jalpaiguri, N. Bengal, at light in railway carriage, 10-ix [*Annandale*]; Sara Ghat, Ganges Riv., E. Bengal, 11-ix [*Annandale*]; Balighai, Orissa, 24—25-x; Shencottah, 25-x; Qui-

lon, 9-xi; Kulattupuzha, 19-xi [all three Travancore and *Annandale*]; Igatpuri, Bombay Presid., 20-xi [*Annandale*].

*calcuttensis*, *id.*, *loc. cit.*, 195, ♀ (*Probezzia*) (1913).

Calcutta, 13-ix-07 [*Annandale*]. *Type* in Indian Museum, unique.

*kempi*, *id.*, *loc. cit.*, 197, ♀ (1913).

Puri, 13-x [*Kemp*]. *Type*, a unique specimen in alcohol, in Indian Museum.

*formosana* Kieff., Supp. Ent. Berl. I, 30 (1912).

Formosa.

*chrysolopha*, *id.*, *loc. cit.*, 31 (1912).

Formosa.

#### Subgenus *Dibezzia*, Kieff.

Rec. Ind. Mus. VI, 120 (1911).

GENOTYPE, *D. clavata* Kieff., sp. nov., by original designation.

*clavata* Kieff., Rec. Ind. Mus. VI, 120, ♀, pl. vi, 7, 8, tarsal joints (1911).

Calcutta, 5—9-ix-07. *Paratypes* in Indian Museum.

Kieffer (*l.c.*) also describes a variety from Calcutta.

*longistila*, *id.*, *loc. cit.*, 121, ♀ (1911).

Calcutta, 29-x-07. *Type*, a unique specimen, in Indian Museum.

*brevistila*, *id.*, *loc. cit.*, 122, ♀ (1911).

Sylhet, 3-iv-05 [*Hall*]. *Type*, a unique specimen, in Indian Museum.

*himalayae*, *id.*, *loc. cit.*, VI, 328, ♀ (1911).

Kurseong, 26-vi-10. *Type*, a unique specimen, in Indian Museum.

*ceylanica* Kieff., Spol. Zeyl. VIII, 6, ♀ (1912).

Peradeniya, 9-vii-10. Two *paratypes* in Indian Museum.

*pictipennis* Kieff., Rec. Ind. Mus. IX, 191, ♀ (1913).

Shasthancottah, Travancore 8-xi-08 [*Annandale*]. *Type*, a unique specimen, in Indian Museum.

*spinigera*, *id.*, *loc. cit.* x, 313, ♀ (1914).

Purneah, 5-viii-07. *Type* in Indian Museum.

#### *Leptoconops*, Skuse.

Proc. Linn. Soc. N.S. Wales (2) iv, 288 (1890).

De Meij., Tijd. v. Ent. LVIII, 98.

GENOTYPE, *L. stygius*, *id.*, *loc. cit.*, sp. nov.

*albiventris* de Meij., Tijd. v. Ent. LVIII, 98, ♀, pl. i, 6 (1915).

North Papua.

Subfamily *TANYPINAE*.<sup>1</sup>**Tanypus**, Mg.

Illig. Mag. II. 261 (1803).

Sch., F. Austr. II, 615: Kieff., Gen. Ins., Fasc. 42, 40: *id.*, Mem. Ind. Mus. II, 220, tab. Ind. spp. GENOTYPE, *Tipula cincta* F., by Latreille's designation, 1810.**melanurus** Dol., Nat. Tijd. Ned. Ind. X, 405, pl. iv, 1, full insect and wing (1856).Ambarawa, Java, in houses during the rains. *Type* probably lost.**cyaneomaculatus**, *id.*, *loc. cit.*, 406, pl. xi, 2, full insect (1856).Ambarawa, Java, abundant in bedrooms. *Type* probably lost.**nigrocinctus**, *id.*, *loc. cit.*, 406, pl. xi, 3, full insect (1856).Java. *Type* probably lost.**manillensis** Sch., Reise Novara, Dipt., 26 (1868).Manila. *Type* in Vienna Museum.**signifer** de Meij., Nova Guin. Results, 71 (1906).Papua. *Type* in Amsterdam Museum.**macrocerus** Kieff., Mem. Ind. Mus. II, 212, ♀ (*Isoplastus*) (1910).*Id.*, Rec. Ind. Mus. VI, 333, note (*Pelopia*); *id.*, *loc. cit.*, IX, 160 (*Pelopia*).Thamaspur, Nepal, xi and 18—20-ii-08; Puri, Orissa, 18-i [Annandale]. *Type* in Indian Museum.

A specimen in the same collection from Puri, 18—19-i-08, is noted by Kieffer as a variety.

**paivai** Kieff., Mem. Ind. Mus. II, 213, ♂ (*Isoplastus*) (1910).*Id.*, Rec. Ind. Mus. IX, 159, ♂ ♀ (*Pelopia*) (1913).Bengal, between Manihari and Manshahi, on railway track, 4-viii-07, *type* ♂ [*Paiva*]; Madhupur, Bengal, 14-x-09, *type* ♀ [*Paiva*]; Maniharighat, Ganges Riv., on sand bank, 17-ii [Chaudhuri]. *Types* in Indian Museum.**ornatipes** Kieff., Mem. Ind. Mus. II, 214, ♀ (1910).*Id.*, Rec. Ind. Mus., IX, 160, ♂ ♀ (1913).Balighai, Orissa, 25-x [Annandale]; Madhupur, Bengal, 14-x, at light [*Paiva*]; Berhampore Court, Bengal, 12-iv [Kemp]; Calcutta, 16-ix; Sonadigee, Ganges Delta, 6-xii, at light [Jenkins]; Ernakulam, Cochin State, 4-xi [Annandale]. *Paratypes* in Indian Museum. Three *paratypes* of an unnamed variety also in the Museum.**pulchripes** Kieff., Mem. Ind. Mus. II, 214, ♂ ♀ (1910).Calcutta, ii, vii, at light; xii [Annandale]; Sonarpur, Bengal, at light, 24-xii; Puri, i, iii. *Paratypes* in Indian Museum.<sup>1</sup> For characters and tab. gen. *v.* Kieff., Gen. Ins., Fasc. 42, 33—34 (1906), and Rec. Ind. Mus. IX, 153, under the inadmissible name of *Pelopinae*.

- violaceipennis** Kieff., *loc. cit.*, II, 222, ♀ (1910).  
Calcutta, 2-ii-08, *type*, 20-iii-07 [Annandale]. *Type* in Indian Museum.
- albolineatus**, *id.*, *loc. cit.*, 224, ♂ (1910).  
Mandalay, 12-iii-08 [Annandale]. *Unique type* in Indian Museum.
- oriplanus** Kieff., Rec. Ind. Mus. vi, 125, ♂ (*Isoplastus*) (1911).  
*Id.*, *loc. cit.*, IX, 161, ♀ (*Pelopia*) (1913).  
Simla, 25-iv-07, *type* ♀ [Annandale]. *Type* ♂ apparently lost, *type* ♀ in Indian Museum.
- saltatrix**, *id.*, Rec. Ind. Mus. VI, 330, ♂ (*Pelopia*) (1911).  
Simla, 9-v-10 "in numbers at dusk, males aerial dancing" [Annandale]. *Paratypes* in Indian Museum.
- brunettii**, *id.*, *loc. cit.*, 332, ♂ (*Pelopia*) (1911).  
Darjiling, 28-v-10 [Brunetti]. *Type*, a unique specimen, in Indian Museum.
- riparia**, *id.*, *loc. cit.*, 332, ♂ (*Pelopia*) (1911).  
Barogh (Simla), 10-v-10 [Annandale]. *Type* in Indian Museum, a unique specimen.
- himalayae**, *id.*, *loc. cit.*, 333, ♂ (*Pelopia*) (1911).  
Barogh (Simla), 10-v-10 [Annandale]. Two *paratypes* in Indian Museum.
- annulatipes** Kieff., Spol. Zeyl. VIII, 8, ♀ (*Pelopia*) (1912).  
Peradeniya, 17-v-10. Two *paratypes* in Indian Museum.
- pallidipes**, *id.*, *loc. cit.*, 9, ♀ (*Pelopia*) (1912).  
Peradeniya, 29-v-10. *Type* in Indian Museum a unique specimen.
- birmanensis** Kieff., Rec. Ind. Mus. IX, 159, ♂ (1913).  
Mandalay, 11-iii-08 [Annandale]. *Type*, a unique specimen, in Indian Museum, reduced to a fragment.
- macrochaeta**, *id.*, *loc. cit.*, 159, ♀, pl. xii, 25, antenna ♀ (1913).  
Kurseong, 27-iii [Annandale]. *Type* belonging to Indian Museum.

### Clinotanypus, Kieff.

Rec. Ind. Mus. IX, 157 (1913).

GENOTYPE, *Procladius atratus* Kieff., the first species, by present designation.<sup>1</sup>

- ornatissimus** Kieff., Mem. Ind. Mus. II., 216, ♂ (*Procladius*) (1910).  
*Id.*, Rec. Ind. Mus. IX, 158, note (*Clinotanypus*) (1913).  
Calcutta, 21-vii, 19-viii [Annandale]; Kushtea, Bengal, 7-x [Jenkins]; Purnea, vii [Paiva]; Madhupur, Bengal, 16, 20-x,

<sup>1</sup> Kieffer in instituting this genus refers six of his species of *Procladius* to it without nominating any one as type.

at light [*Paiva*]; Nedumangad, Travancore, 14-xi [*Annandale*]; Victoria Gardens, Colombo, 26-iv [*Paiva*]; Mandalay, iii [*Annandale*].

var. described by Kieffer, Rec. Ind. Mus. VI, 126 (1911) from Calcutta, ix [*Lloyd*]; 2-i, at light [*Annandale*]. *Paratypes* of normal form and the variety in Indian Museum.

**fumipennis**, *id.*, Mem. Ind. Mus. II, 217, ♀ (*Procladius*) (1910).

Calcutta, iii, vi [*Annandale*]; Giridih, Bengal [*Kemp*]. *Type* belonging to Indian Museum. A variety (descr. Kieff., *loc. cit.*), from Puri, iii [*Paiva*], in Indian Museum.

**paivai**, *id.*, *loc. cit.*, 218, ♀ (*Procladius*) (1910).

Puri, 2-iii-08 [*Paiva*]. *Type* in Indian Museum, unique.

**fuscognatus**, *id.*, *loc. cit.*, 218, ♂ ♀, pl. xi, 6, wing (*Procladius*) (1910).

Calcutta Zoolog. Gardens, vii [*Annandale*]; Sylhet, vii [*Hall*]; Purneah [*Paiva*]; Madhupur, x [*Paiva*]; Giridih, Bengal, [*Kemp*].

var. **aterrimus**, *id.*, *loc. cit.*, 219, ♀

Puri, iii [*Paiva*]. Unique.

var. **flavidus**, *id.*, *loc. cit.*, 219, ♀

Bengal, between Bolpore and Rampore, at light in railway carriage; Calcutta, viii [*Annandale*]; Sylhet, vii. [*Lt-Col. Hall*].

var. **vulgaris**, *id.*, Rec. Ind. Mus., IX, 157, ♀ (1913).

Madhupur, Bengal, x [*Paiva*]; Tinpahar, Bengal, 7-vii; Bho-gaon, N. Bengal, 22-iii [*Paiva*]; Calcutta, 17-vii, 13-viii, 22-ix [*Annandale*]; Kankondigee, Sunderbunds, Ganges Delta, on board launch, at light, 14-xi [*Jenkins*], Bosondhur, Khulna Dist., Ganges Delta, on board launch at light, 29-viii [*Jenkins*]; on board ship 10 miles off Masulipatam, Madras Coast, 4-vi [*Paiva*]; Balighai, Orissa, 26-x [*Annandale*]. An additional form of this var. described (*l.c.*) by Kieffer from Madhupur, Bengal.

var. **jenkinsi**, *id.*, *loc. cit.*, 157, ♀ (1913).

Calcutta, 18-ix; Bosondhur, Khulna Dist., Ganges Delta, on board launch at light, 29-viii [*Jenkins*]; Balighai, Orissa, 25-x [*Annandale*]; Shasthancottah, Travancore, 6-xi [*Annandale*].

var. A further form, unnamed, described by Kieffer (*loc. cit.*, 158) from on board ship 10 miles off Masulipatam, Madras Coast, 4-vi [*Paiva*]. *Paratypes* of all the above varieties and the normal form in the Indian Museum. No *type* set up.

**atratus**, *id.*, Mem. Ind. Mus. II, 219, ♀ (*Procladius*) (1910).

Sylhet, 22-vii-05 [*Hall*]. *Type*, unique, in Indian Museum.

**9-punctatus**, *id.*, *loc. cit.*, 219, ♂ (*Procladius*) (1910).

Calcutta Zoological Gardens, iii, vii [*Annandale*]; at light, 2 and 14-viii; 12-ix [all *Annandale*]; Rajmahal, Bengal, vii; between Bolpore and Rampore, at light in railway carriage; Bettiah, Champaran, iii (both Bengal); Mandalay, iii [*Annandale*]; Puri, iii [*Paiva*]. Several *paratypes* in Indian Museum.

**Trichotanypus, Kieff.**

Ann. Soc. Sci. Brux. XXX, 319 (1906) : no species quoted,  
but one mentioned during same year.

Kieff., Gen. Ins., Fasc 42, 42.

GENOTYPE, *Tanypus posticalis* Lundb. according to Coquillett (1910).

**Subgenus Protenthes, Johan.**

Ent. News Philad. XVIII, 400 (1908).

GENOTYPE, *Tipula cincta* F., as *punctipennis* Mg.

**bilobatus** Kieff., Mem. Ind. Mus II, 221, ♂ ♀ (*Tanypus*) (1910).

*Id.*, Rec. Ind. Mus. VI, 330 (*Trichotanypus*, subgenus *Protenthes*).

Sylhet, ii [Hall]; Calcutta, v, vi, vii, xi [Annandale]; Rajshahi, E. Bengal, ii.

**microcerus** Kieff., Mem. Ind. Mus. II, 224, ♀ (1910).

Puri, 2-iii-08 [Paiva]. Type in Indian Museum, a unique specimen.

Kieffer describes (Rec. Ind. Mus. IX, 155) a variety, also a ♀ from Naini Tal [Lloyd]. Three specimens in the Indian Museum.

**photophilus** Kieff., Nova Guin. Results, 223, ♂ (1910).

*Id.*, Rec. Ind. Mus. IX, 154, ♀. (1913). Paratypes in Indian Museum.

Calcutta, i, at light [Annandale], 16-ix, at light, 18, 21-vi; 11-vii; 14-viii [Annandale]; Asansol, Bengal, 14-ii [Paiva, Caunter]; Ernakulam, Cochin State, 4-xi [Annandale]; Shencottah, Travancore, 25-xi [Annandale]; on ship 10 miles off Masulipatam, Madras Coast, 5-vi [Paiva]. Paratypes in Indian Museum.

**Procladius, Skuse.**

Proc. Linn. Soc. N.S. Wales (2), IV, 283 (1889).

Kieff., Gen. Ins., Fasc. 42, 38: *Id.*, Mem. Ind.

Mus. II, 216, tab. Ind. spp.

GENOTYPE, *P. paludicola* Skuse, by designation of Coquillett (1910).

**crux** Wied., Analec. Entom., 10 (*Tanypus*) (1824).

*Id.*, Auss. Zweifl. I, 19 (*Tanypus*): Wulp, Notes Leyd. Mus. VI, 250 (*Tanypus*): de Meij., Tijd. v. Ent. LVI, 335 (*Procladius*).

*pardalis* Dol., Nat. Tijd. Ned. Ind. X, 405, pl. vi, 1 (1856).

*ornatus*, *id.*, loc. cit., XIV, 385, pl. vii, 1 (1897).

Java, Semarang, i, ii, vi, vii [Jacobson]. Type in Copenhagen Museum.

**formosanus** Kieff., Supp. Ent. Berl. I, 31 (1912).

**bilobatus** Kieff., Rec. Ind. Mus. IX, 155, ♂ ♀ (1913).

Asansol, Bengal, 13-ii [*Paiva, Caunter*]. *Types*, a unique pair, in Indian Museum.

**inconspicuus**, *id.*, *loc. cit.*, 156, ♀, pl. xii, 23, antenna ♀ (1913).

Moulmein, 26-ii [*Annandale*]. *Type* belonging to Indian Museum.

**pallidus**, *id.*, *loc. cit.*, 156, ♀ (1913).

Mandalay, 10-iii, ♀ [*Annandale*]. *Type* belonging to Indian Museum.

**obscuripes** de Meij., Tijds. v. Ent. LVI, 336, ♀ (1913).

Semarang, ii, iii [*Jacobson*]. *Type* in Amsterdam Museum.

### Isoplastus, Skuse.

Proc. Linn. Soc. N.S. Wales (2) IV, 279 (1889).

Kieff., Gen. Ins., Fasc. 42, 43: *id.*, Mem. Ind. Mus. II, 210 (tab. Ind. spp.).

GENOTYPE, *I notabilis* Skuse, the first species, by designation of Coquillett (1910).

**annandalei**, Kieff., Mem. Ind. Mus. II, 211, ♂, pl. ix, 6, 7, 9, var. chars. (1910).

Calcutta, vii-07 [*Annandale*]. *Type* belonging to Indian Museum.

**indicus**, *id.*, *loc. cit.*, 212, ♂ ♀ (1910).

Calcutta, i, vii [*Annandale*]; Katihar, vii [*Paiva*]. *Paratypes* in Indian Museum.

**setosicornis**, *id.*, *loc. cit.*, 213, ♀ (1910).

Bettiah, Champaran, Bengal, 6-iii-08. *Type*, a unique specimen, in Indian Museum.

**variipes**, *id.*, *loc. cit.*, 215, ♂ (1910).

Mandalay, 11-iii-08 [*Annandale*]. *Type*, a unique specimen, in Indian Museum.

**photophilus** Kieff., Rec. Ind. Mus. VI, 126, ♀, pl. vi, 11, antenna (1911).

Katihar, at light, 14-x-07 [*Paiva*]. *Type*, a unique specimen, in Indian Museum.

### Subfamily CHIRONOMINAE.<sup>1</sup>

#### Section CLUNIONARIAE.<sup>2</sup>

#### **Nepalia**, Kieff.

Rec. Ind. Mus. VI, 348 (1911).

GENOTYPE, *N filipes*, the original species.

<sup>1</sup> For groups *v.* Kieff., Rec. Ind. Mus. IX, 120.

<sup>2</sup> For table of all genera *v.* Kieff., Rec. Ind. Mus. IX, 121.

**filipes** Kieff., Rec. Ind. Mus. VI, 338, ♂ (1911).  
Noalpur, Nepal, 23-ii-08. The unique *type* is no longer in existence.

Section ORTHOCLADIARIAE.<sup>1</sup>

**Metriocnemus**, Wulp.

Tijd. v. Ent. XVII, 136 (1874):

Kieff., Gen. Ins., Fasc. 42, 31.

GENOTYPE, *Chironomus albolineatus*, Mg., by Coquillett's designation (1910).

*Wulpiella*, Kieff., Bull. Soc. Ent. Fran. LXVIII, 66 (1899).

**callinotus** Kieff., Rec. Ind. Mus. VI, 175, ♂ (1911).

Simla Hills, 25-iv-07 [*Annandale*]. *Type*, a unique specimen, in Indian Museum.

**fusiger**, *id.*, *loc. cit.*, 348, ♂ ♀ (1911).

Simla, 12-v-08 [*Annandale*]. Four *paratypes* in Indian Museum.

**Camptocladius**, Wulp.

Tijd. v. Ent. XVII, 133 (1874).

Kieff., Gen. Ins., Fasc. 42, 24.

GENOTYPE, *Tipula byssina* Schrk by Coquillett's designation (1910).

**monticola** Kieff., Rec. Ind. Mus. VI, 346, ♀, pl. xiv, 9, wing (1911).

Simla, 11-v-08. The unique *type* in the Indian Museum is a mere fragment.

**Rhopalocladius**, Kieff.

Rec. Ind. Mus. VI, 347 (1911).

GENOTYPE, *R. himalayae*, the original species.

**himalayae** Kieff., Rec. Ind. Mus. VI, 347, ♂.

Barogh, Simla, 10-v-10 [*Annandale*]. *Type* lost.

**Conacladius**, Kieff.

Mem. Ind. Mus. II, 242 (1910).

GENOTYPE, *C. flavus*, the original species.

**flavus** Kieff., Mem. Ind. Mus. II, 242, ♂, pl. xi, 15, head, 13, tip of genitalia (1910).

Calcutta. *Type* belonging to Indian Museum.

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<sup>1</sup> For table of genera *v.* Kieff., Rec. Ind. Mus. IX, 122, and Spol. Zeyl. VIII, 23.



**Dolichocladius**, Kieff.

Rec. Ind. Mus. VI, 176 (1910).

GENOTYPE, *D. heteropterus* Kieff., the original species.

**heteropterus** Kieff., Rec. Ind. Mus. VI, 176, ♂ (1910).

Base of Dawna Hills, 4-iii-08 [*Annandale*]. Type in Indian Museum, a unique specimen.

**Orthocladius**, Wulp.

Tijd. v. Ent. XVII, 132 (1874).

Kieff., Gen. Ins., Fasc. 42, 25.

GENOTYPE, *Tipula stercoraria*, De Geer, by Coquillett's designation (1910).

Subgenus **Trichocladius**, Kieff.

Ann. Soc. Sci. Brux. XXX, 356 (1906).

Kieff., Gen. Ins., Fasc. 42, 25; *id.*, Rec. Ind. Mus. VI, 177 (1911).

GENOTYPE, *T. fissicornis* Kieff., the original species.

**spatulicornis** Kieff., Rec. Ind. Mus. VI, 177, ♂, pl. vii, 33, antenna, 34, genitalia, pt. (1911).

Bengal, between Manihari and Manshahi, on railway track, 4-viii-07. Three *paratypes* in Indian Museum.

**pentazonus**, *id.*, *loc. cit.*, VI, 345, ♂ (1911).

Thaumaspur, Nepal, 18-ii-08; Tharbani, Nepal, 27-ii-08. Three *paratypes* in Indian Museum.

**oriplanus**, *id.*, *loc. cit.*, 346, ♂ (1911).

Tonglu, Darjiling, 10,000 ft., 21-iv-10 [*C. W. Beebe*]. Type, unique, but much damaged, in Indian Museum.

**anomalus**, *id.*, *loc. cit.*, IX, 124, ♂ (1913).

Valley of Sutlej River, below Simla, 6-v [*Annandale*]; Darjiling, 8-viii [*Jenkins*]. Type belonging to Indian Museum.

Subgenus **Psectrocladius**, Kieff.

Ann. Soc. Sci. Brux. XXX, 356 (1906).

Kieff., Gen. Ins., Fasc. 42, 26; *id.*, Rec. Ind. Mus. VI, 176 (1911).

GENOTYPE, *Orthocladius psilopterus*, Kieff., according to Coquillett (1910).

**flavicollis** Kieff., Rec. Ind. Mus. VI, 176, ♀ (1911).

Calcutta, 31-i-08 [*Annandale*]. Type in Indian Museum, unique.

Subgenus **Dactylocladius**, Kieff.

Ann. Soc. Sci. Brux. XXX, 356 (1906).

Kieff, Gen. Ins., Fasc. 42, 26: *id.*, Rec. Ind. Mus. IV, 174 (1911).GENOTYPE, *Orthocladius brevicornis*, Kieff., according to Coquillett (1910).**tenuicrus** Kieff., Rec. Ind. Mus. VI, 174, ♂ (1910).Rajshahi, E. Bengal, 6-ii-07 [*Annandale*]. *Type*, unique, in Indian Museum.**ceylanicus** Kieff., Spol. Zeyl. VIII, 21, ♂, fig. 8, genitalia tip (1912).Peradeniya, 14-vii-10. *Type*, unique, in Indian Museum.**Cardiocladius**, Kieff.

Spol. Zeyl. VIII, 22 (1912).

*nom. nov.* for *Thalassomyia* Johann., nec. Sch.*Thalassomyia*, Johan, Bull. N.Yk. State Mus.LXVIII, 437, ♂ ♀ (1903): *nec Thalassomyia*, Sch., 1856.Kieffer sets up *ceylanicus*, sp. nov. as type of his new genus, stating it to be synonymous with Johannsen's, and that the latter is different from Schiner's.<sup>1</sup>**ceylanicus** Kieff., Spol. Zeyl. VIII, 22, ♀, fig. 9, flagellum (1912).Peradeniya, 2-vi-10. *Type* in Indian Museum.**Cricotopus**, Wulp.

Tijd. v. Ent. XVII, 132 (1874)

Kieff., Gen. Ins., Fasc. 42, 23.

GENOTYPE, *Chironomus tibialis* Mg., by designation of Coquillett (1910).**carnosus** Kieff., Supp. Ent. Berl. I, 32 (1912).

Formosa.

**brunettii** Kieff., Rec. Ind. Mus. IX, 125, ♂ ♀ (1913).Kurseong, 6-ix-09, at light [*Annandale*]; Darjiling, 6000 ft., 28-ix-08 and 1-x-07 [*Brunetti*]. Several *paratypes* in Indian Museum.Section **CHIRONOMARIAE**.<sup>2</sup>**Tanytarsus**, Wulp.

Tijd. v. Ent. XVII, 134 (1874).

Kieff., Gen. Ins., Fasc. 42, 29: *id.*, Mem. Ind.Mus. II, 239, tab. Ind. spp.: *id.*, Rec. Ind. Mus.

VI, 166, tab. add. Ind. spp. nov.

<sup>1</sup> The work in which *Thalassomyia*, Johann., is described is inaccessible in India.<sup>2</sup> This name is formed to be in keeping with the names of the other two sections admitted by Kieffer, but the term used by that author is *Tendipedariae*, which is inadmissible, being founded on an inadmissible generic name, *Tendipes*. For table of genera in this section, see Kieffer, Rec. Ind. Mus. IX, 126.

GENOTYPE, *Chironomus punctipes* Wied., by Coquillett's designation (1910).

**clavatitarsis** Kieff., Mem. Ind. Mus. II, 240, ♀, pl. ix, 5, middle tarsus, part (1910).

Calcutta, vii. Type belonging to Indian Museum.

**setosipennis**, *id.*, *loc. cit.*, 240, ♂ (1910).

Calcutta, vii-07 [Annandale]. Type belonging to Indian Museum.

**breviventris**, *id.*, *loc. cit.*, 241, ♀ (1910).

Calcutta, vii-07 [Annandale]. Type belonging to Indian Museum.

**pilosipennis**, *id.*, *loc. cit.*, 241, ♀ (1910).

Calcutta, vii-07 [Annandale]. Type belonging to Indian Museum.

**viridis** Kieff., Rec. Ind. Mus. VI, 168, ♂ ♀, pl. vii, 25, wing, ♂ (1911).

Puri, 2-iii [Paiva]. Paratypes in Indian Museum.

Kieffer describes a variety, *loc. cit.*, ix, 152, from Puri, 19-i; 24-ii; 2-iii [Paiva]. Type in Indian Museum.

**hirtipes**, *id.*, *loc. cit.*, 168, ♂ (1911).

Sylhet, 27-i-05 [Hall]. Type in Indian Museum, a unique specimen.

**lasiopterus**, *id.*, *loc. cit.*, 169, ♂, pl. vii, 26, genitalia, part (1911).

Rajshahi, E. Bengal, 6-ii-07 [Annandale]. Type belonging to Indian Museum.

**confundendus**, *id.*, *loc. cit.*, 169, ♂, pl. vii, 27, genitalia (1911).

Port Canning, 21-vii [Annandale]; Calcutta, 23-vii [Lloyd]. Paratypes in Indian Museum.

**adjacens**, *id.*, *loc. cit.*, 170, ♀ (1911).

Rajshahi, E. Bengal, 6-ii-07 [Annandale]. Type, a unique specimen, in Indian Museum.

**semiglaber**, *id.*, *loc. cit.*, 170, ♀ (1911).

Calcutta, 30-vii-07, at light [Annandale]. Type in Indian Museum, a unique specimen.

**macrochirus**, *id.*, *loc. cit.*, 171, ♀ (1911).

Bhim Tal, 27-ix-06 [Annandale]. Type, a unique specimen, in Indian Museum.

**leptogastrus**, *id.*, *loc. cit.*, 172, ♂ (1911).

Port Canning, 21-vii-07 [Annandale]. Type, a unique specimen, in Indian Museum.

**lasioopus**, *id.*, *loc. cit.*, 172, ♀ (1911).

Port Canning, 21-vii-07 [Annandale]. Type, a unique specimen, in Indian Museum.

The month of capture is July, not August as quoted by Kieffer.

**formosanus** Kieff., Supp. Ent. Berl. I, 42 (1912).

Formosa.

**lobatus** Kieff., Spol. Zeyl. VIII, 18, ♀ (1912).

Peradeniya, 2-vi-10. *Type* in Indian Museum, unique, damaged.

**transversalis**, *id.*, *loc. cit.*, 19, ♂ ♀, fig. 6, antenna tip (1912).

Peradeniya, 2 and 23-vi-10, *type* ♂ ♀ *Types* in Indian Museum, unique.

**prasiogaster**, *id.*, *loc. cit.*, 20, ♂ ♀ (1912).

Peradeniya, 30-v-10. *Paratypes* in Indian Museum.

**ceylanicus**, *id.*, *loc. cit.*, 20, ♀, fig. 7, antenna tip (1912).

Peradeniya, 17 and 19-v-10. *Paratypes* in Indian Museum.

**poecilus**, *id.*, *loc. cit.*, 21 (1912).

Peradeniya, 13-v-10. Fragments of *type* in Indian Museum, in Canada balsam.

**bicornutus** Kieff., Rec. Ind. Mus. IX, 151, ♀ (1913).

Giridih, Bengal, 2-xi [Kemp]. Two *paratypes* in Indian Museum, in alcohol.

**pentatomus**, *id.*, *loc. cit.*, 152, ♀, pl. xii, 22, antenna (1913).

Puri, 13-xi [Kemp]. *Paratypes* in Indian Museum, in alcohol.

#### Subgenus **Micropsectra**, Kieff.<sup>1</sup>

**indica** Kieff., Mem. Ind. Mus. II, 242, ♀ (*indicus*) (1910).

Calcutta, vii-07 [Annandale]. *Type* belonging to Indian Museum.

#### **Polypedilum**, Kieff.<sup>2</sup>

**tripartitum** Kieff., Mem. Ind. Mus. II, 231 (*Prochironomus tripartitum*) ♂ ♀ (1910).

*Id.*, Rec. Ind. Mus. IX, 150, notes.

Madhupur, Bengal, 17-x, at light [Paiva]; Poradah, E. Bengal, in railway station, 26-vi [Jenkins]; Bosondhur, Ganges Delta, 29-viii, on launch at light [Jenkins]; Puri Distr., 14-i and 8-xii [Caunter]; Kuching, Sarawak, 16-vi [Beebe]; on board ship, Suez Canal, 9-x-07; *type* ♂ and ♀ [Annandale]. *Types* in Indian Museum.

**annulatipes**, *id.*, Mem. Ind. Mus. II, 234, ♀ (1910).

*Id.*, Rec. Ind. Mus. IX, 151, ♂ ♀ (1913).

Puri, iii [Paiva]; Lake Chilka, at light, iii [Annandale]; Khulna Distr., Ganges Delta, on board launch at light [Jenkins]. *Paratypes* in Indian Museum.

<sup>1</sup> I have been unable to trace the origin of this genus.

<sup>2</sup> I have been unable to trace the origin of this genus. Kieffer (Rec. Ind. Mus. IX, 146) gives a table of the Indian species.

**fasciatipenne** Kieff., Mem. Ind. Mus. II, 238, ♀, pl. xi, 4, antenna tip (*Prochironomus*) (1910).

*Id.*, Rec. Ind. Mus. VI, 135 (*Chironomus*): *id.*, *loc. cit.*, IX, 150 (*Polypedilum*).

Calcutta, i, ii, vi, vii, viii, ix [mostly *Annandale*]. Larva feeds on *Hydra* (*v.* Journ. As. Soc. Bengal (n.s.), II, 1906, p. 112): Ann., Faun. Brit. Ind., Freshwater Sponges, 155; Bains Prashad, Rec. Ind. Mus. XV, 71, anatomy larva of this or an allied species, pl. xxiii, var. chars. *Paratypes* in Indian Museum.

**pelostolum** Kieff., Supp. Ent. Berl. I, 41 (1912).

Formosa.

**cristatum** Kieff., Rec. Ind. Mus. IX, 146, ♂ ♀ (1913).

Katihar, N. Bengal, ix [*Paiva*]; Port Canning, 6-xii; Lake Chilka, iii [*Annandale*]. *Paratypes* in Indian Museum.

**kempi**, *id.*, *loc. cit.*, 147, ♀, pl. xii, 18, antenna (1913).

Puri, 13-xi [*Kemp*]. *Type* in Indian Museum, in alcohol.

**angustiforceps**, *id.*, *loc. cit.*, 148, ♂, xii, 19, genitalia (1913).

Katihar, Bengal, ix [*Paiva*]. *Type* belonging to Indian Museum.

**milnei**, *id.*, *loc. cit.*, 148, ♂ (1913).

Berhampur, Murshidabad Distr., Bengal, xii [*Milne*]. *Type*, a unique specimen, in Indian Museum.

The only specimen in the Museum, which is marked "type," has no month given but is dated 1907 only.

**purimanus**, *id.*, *loc. cit.*, 149, ♂ (1913).

Calcutta, ix [*Lloyd*]. *Type* belonging to Indian Museum.

**brumalei**, *id.*, *loc. cit.*, 149, ♀, pl. xii, 20, antenna (1913).

Giridih, Bengal, 7-xi [*Kemp*]. Two *paratypes* in alcohol in Indian Museum.

### Paratendipes, Kieff.<sup>1</sup>

Rec. Ind. Mus. IX, 126 (1913).

GENOTYPE, unknown to present author.

**diagraphis** Kieff., Rec. Ind. Mus. VI, 335, ♂ ♀, pl. xiv, 3, genitalia, part (*Tendipes*) (1911).

Simla, 9-v-10; Mundali (Dehra Dun, W Himalayas), 12-v-10. *Paratypes* in Indian Museum.

**melanothorax**, *id.*, *loc. cit.*, 335, ♂ ♀, pl. xiv, 2, genitalia, part (*Tendipes*) (1911).

Thamaspur, Nepal, 20-ii-08; Tharbani, 27-ii-08. *Type* belonging to Indian Museum.

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<sup>1</sup> The only characterisation of this genus that I can find is its inclusion in a table of genera of this group, as quoted, but it is not therein given as new. Kieffer gives a table of four Indian species, p. 143.

**pelargus**, *id.*, *loc. cit.*, IX, 143, ♂ ♀, pl. xii, 16, last 2 joints ♀ antenna (1913).

Calcutta, 29-viii-07, *type*, ♂, 11-xii-07, *type* ♀ *Types* in Indian Museum, the only specimens.

**ditaenius**, *id.*, *loc. cit.*, 144, ♀ (1913).

Katihar, 14-x-07 [*Paiva*]. The unique *type* in the Indian Museum is a useless fragment.

**caunteri**, *id.*, *loc. cit.*, 144, ♀ (1913).

Rajmahal, Bengal, 5-vii, at light [*Annandale*]; on board launch at light, Borondhur, Khulna Distr., Ganges Delta, 29-viii [*Jenkins*]; Chennia, 24 Perghs., Sunderbunds, 10-xi [*Jenkins*]; Balighai, near Puri, 23-x [*Annandale*]. *Paratypes* in Indian Museum.

**dolens**, *id.*, Mem. Ind. Mus. II, 233, ♀ (*Prochironomus*) (1910).

*Id.*, Rec. Ind. Mus. IX, 145, ♂ ♀, pl. xii, 17, genitalia tip (1913).

Calcutta, ii, viii, xi, xii; at light, i; Bettiah, Bengal, iii; Katihar, x [*Paiva*]; Sonapur, Bengal, 24-xii, at light in railway carriage [*Annandale*]; Puri, 2-iii [*Paiva*]. Several *paratypes* in Indian Museum.

A variety from the base of the Dawna Hills, taken in March by Dr. Annandale, noted by Kieffer (Mem. Ind. Mus. II, 234).

### Glyptotendipes, Kieff.<sup>1</sup>

GENOTYPE, *G. sigillatus* Kieff., by original designation.

**verrucosus** Kieff., Rec. Ind. Mus. VI, ♂ ♀ (*Chironomus*) (1911).

*Id.*, *loc. cit.*, IX, 140, note, pl. xi, 11, genitalia tip (*Tendipes*).

Bhim Tal, 25, 27-ix-06 [*Annandale*]; Calcutta, 26-v; 14-vii; 28-xii-07. *Paratypes* in Indian Museum.

### Prochironomus, Kieff.<sup>2</sup>

Mem. Ind. Mus. II, 225 (1910).

GENOTYPE unknown to present author.

**prussicus** Kieff., Mem. Ind. Mus. II, 229, ♂ (1910).

Simla, 12-v-08 [*Annandale*]. *Type*, a much damaged unique specimen, in Indian Museum.

**pictiventris**, *id.*, *loc. cit.*, 229, ♂ (1910).

Bettiah, Champaran, Bengal, 4-iii-08. *Type*, a unique specimen, in Indian Museum.

<sup>1</sup> The original description of this genus is unknown to me.

<sup>2</sup> Although Kieffer removes three species, *striatipennis*, *punctatipennis* and *fasciatipennis*, to *Chironomus*, he says nothing about the remainder from which I infer he still considers *Prochironomus* a valid genus.

**annandalei**, *id.*, *loc. cit.*, 230, ♀, pl. ix, 10, 11, var. chars. (1910).  
Calcutta, vii-07 [*Annandale*]. *Type* technically in Indian Museum, but the only specimen there is labelled "Calcutta, ix-07, *type*." An error seems to have crept in somewhere.

**stripes**, *id.*, *loc. cit.*, 231, ♀ (1910).

Katihar, 4-viii-07 [*Paiva*]. *Type*, a unique specimen, in Indian Museum.

At first considered possibly the ♀ of *albiforceps*, but later (Rec. Ind. Mus. VI, 143) Kieffer admits it as a good species.

**clavatipes**, *id.*, *loc. cit.*, 232, ♂ (1910).

Bengal, between Manihari and Manshali, on railway track, 4-viii-07 [*Paiva*]. *Type* in Indian Museum, a unique specimen.

**graciliforceps**, *id.*, *loc. cit.*, 235, ♂ (1910).

Bengal, between Bolpore and Rampore, at light in railway carriage, 3-viii-07 [*Paiva*]. *Type* in Indian Museum, a unique specimen.

**curtimanus**, *id.*, *loc. cit.*, 235, ♀ (1910).

Mandalay, iii [*Annandale*]. *Type* belonging to Indian Museum.

**hallii**, *id.*, *loc. cit.*, 237, ♀ (1910).

Sylhet, 9-ii [*Hall*]. *Type* belonging to Indian Museum.

**tenuitarsis**, *id.*, *loc. cit.*, 237, ♀ (1910).

Rangoon, 25-ii-08 [*Annandale*]; Mandalay, 11-iii-08 [*Annandale*]. Two *paratypes* in Indian Museum.

**fimbriatus**, *id.*, *loc. cit.*, 238, ♀ (1910).

Tharbani, Nepal, 27-ii-08. Kieffer erroneously quotes November. *Type*, a unique specimen, in Indian Museum.

### Chironomus, Mg.

Illig. Mag. II, 260 (1803).

Sch., F. Austr. II, 595: *Auct. var.*: Kieff., Gen. Ins., Fasc., 42, 14: *id.*, Mem. Ind. Mus. II, 225, tab. Ind. spp.: *loc. cit.*, VI, 127 and VI, 333, tab. addit. spp. nov. (as *Tendipes*): *loc. cit.*, IX, 129, tab. 37 Ind. spp. (as *Tendipes*): *id.*, Spol. Zeyl. VIII 10, tab. spp.

GENOTYPE, *Tipula plumosa* L., by Latreille's designation.

**venustus** W., Auss. Zweifl. I, 547 (1828).<sup>1</sup>

China. *Types* in Wiedemann's and Trentepohl's collections.

**socius** Walk., List Dipt. Brit. Mus. I, 16 (1848).

East India. *Type* in British Museum.

<sup>1</sup> Probably should not be included in oriental lists.

- cubiculorum** Dol., Nat. Tijd. Ned. Ind. X, 405, pl. v, 2 (1856).  
Java. *Type* probably lost.
- vicarius** Walk., Ins. Saund. Dipt., pt. V, 423, ♂ ♀ (1856).  
East India. *Type*, location unknown to present author.
- pictus** Dol., Nat. Tijd. Ned. Ind. XIV, 386, pl. vii, 2 (1857).  
Java. *Type* probably lost.
- instabilis** Walk., Proc. Linn. Soc. Lond. VIII, 103 (1865).  
Papua. *Type*, location unknown to present author.
- trochanteratus** Thoms., Eugen. Resa, 445 (1869).  
Manila. *Type*, location unknown to present author.
- novaeguineensis** de Meij., Nova Guinea Results, V, 69 (1906).  
Papua. *Type* in Amsterdam Museum.
- camptogaster** Kieff, Mem. Ind. Mus. II, 227, ♂, pl. xi, 2, abdomen tip (1910)  
Calcutta. *Type* belonging to Indian Museum.
- longivalvis**, *id.*, *loc. cit.*, 228, ♂, pl. xi, 11, genitalia, pt. (1910).  
Calcutta. *Type* belonging to Indian Museum.
- bipunctatus**, *id.*, *loc. cit.*, 228, ♂ (1910).  
*Id.*, Rec. Ind. Mus. IX, 139, ♀ (*Tendipes*).  
Rangoon, 25-ii-08 [*Annandale*]. Two *paratypes* in Indian Museum.
- albiforceps**, *id.*, Mem. Ind. Mus. II, 231, ♂ (*Prochironomus*) (1910).  
Calcutta, 5-i; ii, iii, 18-v; 2-vii; viii, ix, x, xi, xii; Dum Dum, 28-vii [*Lord*]; Bhogaon, Bengal, 2-x; Katihar, Bengal, 4-viii [*Paiva*]; on board launch at light, Port Canning [*Annandale*]; Bologhatta, near Khulna, Ganges Delta, 28-viii and Khulna, 27-viii [both *Jenkins*]; Katihar, viii [*Paiva*]; Mandalay, 12-iii [*Annandale*]; Peradeniya, 17-v-10, at light. *Paratypes* in Indian Museum.
- punctatipennis**, *id.*, Mem. Ind. Mus. 234, ♂ ♀ (*Prochironomus*) (1910).  
*Id.*, Rec. Ind. Mus. IX, 138, pl. xi, 10, genitalia (*Tendipes*).  
Rajmahal, Bengal, 31-vii-07, *type* ♀, viii; Puri 2-iii-03 [*Paiva*]; Katihar, 4-viii-07, *type* ♂; ix [*Paiva*]; at light on launch, Bosphordhur, Khulna Distr., Ganges Delta, 29-viii [*Jenkins*]; Shencottah, Travancore, 25-xi-08 [*Annandale*]. *Types* in Indian Museum, the ♂ a mere fragment.
- striatipennis** Kieff., Mem. Ind. Mus. II, 326, ♀ (*Prochironomus*) (1910).  
*Id.*, Rec. Ind. Mus. VI, 134, ♂ ♀, pl. vi, 12, genitalia tip, (*Chironomus*): *id.*, *loc. cit.*, IX, 138, notes (*Tendipes*).  
Bhim Tal, 27-ix-06 [*Annandale*]; Calcutta, 22-xii; Shencottah, Travancore, 25-xi [*Annandale*]; Victoria Gardens, Colombo, 26-iv [*Paiva*] Several *paratypes* in Indian Museum.
- speciosus** Kieff., Rec. Ind. Mus. VI, 133, ♂ (1911).  
Matiana [*Annandale*]. *Type*, a unique specimen, in Indian Museum.



**pruinus**, *id.*, *loc. cit.*, 134, ♀ (1911).

Barrackpore, near Calcutta, 11-viii-07 [*Annandale*]. *Type* in Indian Museum, a unique specimen.

**nigrosparus**, *id.*, *loc. cit.*, 135, ♀ (1911).

Mandalay, 11-iii-08 [*Annandale*]. *Type*, a unique specimen, in Indian Museum.

**ceylanicus**, *id.*, *loc. cit.*, 136, 137, ♂ ♀ (1911).

Colombo, vii-1901. *Paratypes* in Indian Museum. Known in Colombo as the "Lake Fly"; see Ind. Mus. Notes, V, 191 and 195.

**polystictus**, *id.*, *loc. cit.*, 137, ♂ (1911).

Bengal (between Bolpore and Rampore), 3-viii-07, at light in railway carriage [*Paiva*]. *Type* in Indian Museum, a unique specimen.

**lobaticeps**, *id.*, *loc. cit.*, 138, ♂ ♀, pl. vi, 13, genitalia, tip (1911).

Sylhet, ii [*Hall*]; Bijnor (United Prov, India), i; Calcutta, xi, xii; Port Canning, Bengal, xii. *Paratypes* in Indian Museum.

var. **validus** Kieff., in H. Sauter's *Formosa Ausbeute*, *Tendipedidae* (Supp. Ent. 1912, V, 1, p. 311, ♂ ♀) (*Tendipes*)?

*Id.*, Rec. Ind. Mus. IX, 140, ♂, note (*Tendipes*).

Calcutta, 30-i; iii, iv, 5-xii; Madhupur, Bengal, x; Sonadigee, Ganges Delta, 6-xii, at light; Formosa, ii, iii [*Sauter*]. *Paratypes* in Indian Museum.

**lobaticollis** Kieff., Rec. Ind. Mus. VI, 139, ♂ ♀, pl. vi, 14, genitalia tip (1911).

Sylhet, ii [*Hall*]. *Paratypes* in Indian Museum

**flaviventris**, *id.*, *loc. cit.*, 139, ♂ (1911).

*Id.*, *loc. cit.*, IX, 141, note (*Tendipes*).

Puri, 20--21-i-08, *type*; Balighai, near Puri, 26-x-08 [*Annandale*]. *Type* in Indian Museum.

**grossipes**, *id.*, *loc. cit.*, VI, 141, ♀ (1911).

Calcutta, v, vii [*Annandale*]. Two *paratypes* in Indian Museum.

**nigromarginatus**, *id.*, *loc. cit.*, 141, ♀ and 344, note (1911).

*Id.*, Spol. Zeyl. VIII, 17, note (*Tendipes*).

"Probably the ♀ of *C. callithorax*" (Kieffer).

Lucknow, iv; Calcutta, i, iii, v, viii, also iii, at light; Port Canning, 21-viii [*Annandale*]; Lake Chilka, iv; Chandan Chowki, United Prov., India, 8-v-07; Kawkereik, Amherst Distr., Lower Burma, 5-iii; Peradeniya, at light. 14-v; 17-v; 17-vi-10.

var. **macrogaster**, *id.*, Rec. Ind. Mus. VI, 142, ♀ (1911).

Maldhun, Naini Tal Distr., 14-ii, United Prov., India; Kuching, Borneo. *Paratypes* of normal form and variety in Indian Museum. The var. *macrogaster* is represented by a unique specimen.

**callithorax**, *id.*, *loc. cit.*, 142, ♂ (1911).

Lucknow 21-v-07: Bijnor Distr., United Prov., India, var.

locs., xi-07; Sonarpur, Lower Bengal, 24-xii, at light in railway carriage [*Annandale*]; Calcutta, 30-iv-07, at light; 24-vi-07; Rajshahi, E. Bengal, 6-ii-07; Mandalay, 12-iii-08. Several *paratypes* in Indian Museum.

**melanostolus**, *id.*, *loc. cit.*, 143, ♀ (1911).

Lake Chilka, 7—15-viii-07. *Type* in Indian Museum, a unique specimen.

**nigriforceps**, *id.*, *loc. cit.*, 143 ♂ (1911).

Chandan Chowki, United Prov., India, 8-v-07. *Type*, a unique specimen, in Indian Museum.

**dolichogaster**, *id.*, *loc. cit.*, 144 ♂ (1911).

*Id.*, *loc. cit.*, ix, 142, ♂ ♀, pl. xii, 15, genitalia tip (*Tendipes*) (1913)

Calcutta, ii-08 [*Annandale*]; viii. Three *paratypes* in Indian Museum.

**seminiger**, *id.*, *loc. cit.*, 144, ♂ (1911).

*Id.*, *loc. cit.*, ix, 141, ♂, pl. xi, 13, genitalia (*Tendipes*).

Calcutta, 3—23-iii-07 [*Annandale*]; viii. Several *paratypes* in Indian Museum.

**lampronotus**, *id.*, *loc. cit.*, 144, ♀ (1911).

Sylhet, 14-iii-05 [*Hall*]. *Type* in Indian Museum, a unique specimen.

Kieffer quotes April (iv) as the date, but though it is not quite certain, it appears to be intended for iii.

**longicrus**, *id.*, *loc. cit.*, 145, ♂ (1911).

Matiana [*Annandale*]. *Type*, a unique ♂, in Indian Museum.

**fuscitarsis**, *id.*, *loc. cit.*, 145, ♀ (1911).

*Id.*, Spol. Zeyl. VIII, 17, note (*Tendipes*).

Calcutta, 20-viii; Peradeniya, 2-vi-10; Mandalay, 12-iii-08 (*type*) [*Annandale*]. *Type* in Indian Museum.

Kieffer (Rec. Ind. Mus. IX, 142) queries this as a variety of *lamprothorax*.

**callicomus**, *id.*, Rec. Ind. Mus. VI, 146, ♂ (1911).

Matiana [*Annandale*]. *Type* in Indian Museum.

**lamprothorax**, *id.*, *loc. cit.*, 146, ♀ (1911).

Calcutta, vii, viii, ix, xi, xii; Port Canning, vii [*Annandale*]; Katihar, viii; Puri, at light, 24-ii [*Paiva*]; between Bolpore and Rampore, Bengal, at light in railway carriage, 3-viii-07, *type* [*Paiva*]. *Type* in Indian Museum.

var. **radialis**, *id.*, *loc. cit.*, 147, ♀ (1911).

Calcutta, vi, vii, viii. *Paratypes* in Indian Museum.

var. **conjungens**, *id.*, *loc. cit.*, X, 315, ♂ ♀ (1914).

Calcutta, Ind. Mus. gardens, 25-viii-10. *Type* in Indian Museum.

**tenerrimus**, *id.*, *loc. cit.*, VI, 147, ♂ ♀, pl. vi, 15, genitalia, pt. (1911).

- Calcutta, i, ii, iii, vi, viii, often at light [*Annandale*]. Several *paratypes* in Indian Museum.
- var. **leucotarsus**, *id.*, *loc. cit.*, 148, ♂ (1911).  
*Id.*, *loc. cit.*, VI, 158, var. ♂, pl. vii, 22, genitalia, pt. (1911).  
 Calcutta, vi, at light, viii-07 [*Annandale*]. Three *paratypes* in Indian Museum.
- Another variety of this variety described (*loc. cit.*) from Calcutta, vi, viii, at light.
- dolichotomus**, *id.*, *loc. cit.*, 149, ♂, pl. vii, 17, genitalia (1911).  
 Purneah Distr., 5-viii-07 [*Paiva*]. *Type* in Indian Museum, a unique ♂
- callinotus**, *id.*, *loc. cit.*, 150, ♂, pl. vii, 18, genitalia, pt. (1911).  
 Bijnor Distr., United Prov., India, 11-ii-07. *Type* in Indian Museum, a unique ♂
- melanophorus**, *id.*, *loc. cit.*, 150, ♀ (1911).  
 Calcutta, 13-vi-07. *Type*, a unique ♀, in Indian Museum.  
 Kieffer, *loc. cit.*, IX, 143, describes a variety (♀) from Rajshai, East Bengal, ii [*Annandale*].
- planicollis**, *id.*, *loc. cit.*, 151, ♀ (1911).  
 Sylhet, 27-i-03 [*Hall*]. Two *paratypes* in Indian Museum.
- breviforceps**, *id.*, *loc. cit.*, 151, ♂ ♀ : 342, pl. xiv, genitalia ♂, tip (1911).  
 Theog, 2-v-07 [*Annandale*]; Dharampur (Simla) [*Annandale*].  
 Two *paratypes* in Indian Museum.
- oriplanus**, *id.*, *loc. cit.*, 152, ♂ (1911).  
 Theog, 2-v-07 [*Annandale*]. *Type* in Indian Museum, a unique specimen.
- forficularius**, *id.*, *loc. cit.*, 153, ♂, pl. vii, 19, genitalia (1911).  
 Calcutta, 13-viii-07. *Type* in Indian Museum, a unique specimen.
- barbatitarsis**, *id.*, *loc. cit.*, 154, ♂ ♀, pl. vii, 20, antenna ♀, 21, genitalia ♂ (1911).  
*Id.*, *loc. cit.*, IX, 141 (*Tendipes*).  
 Calcutta, iv, v, vii, viii, ix, xi, xii; Port Canning, viii, xii; Bettiah, Champaran, Bengal, 4-iii; Lake Chilka, viii; Mandalay, iii [both *Annandale*]. Several *paratypes* in Indian Museum.
- var. **semiflavus**, *id.*, *loc. cit.*, 154, ♂  
 Calcutta (Zoolog. Gdns.), 21--25-viii-07 [*Annandale*]. Two *paratypes* in Indian Museum.
- eallichirus**, *id.*, *loc. cit.*, VI, 155, ♂ (1911).  
 Calcutta (Zoolog. Gdns.), 4-v. *Type*, a unique specimen, in Indian Museum.
- melanochirus**, *id.*, *loc. cit.*, 155, ♂ ♀ (1911).  
 Phagu, 3-v-07 [*Annandale*]. *Types* in Indian Museum, a unique pair.  
 Kieffer quotes "October," but the inscription (badly written) is intended for May.

- melanostictus**, *id.*, *loc. cit.*, 156, ♂ (1911).  
Calcutta, 1-viii-07 [*Annandale*]. *Type* in Indian Museum, a unique ♂.
- callisphyrus**, *id.*, *loc. cit.*, 156, ♂ ♀ (1911).  
Sylhet, 1-ii; v, vi, xi [*Hall*]. Several *paratypes* in Indian Museum.
- var. **dolichomerus**, *id.*, *loc. cit.*, 157, ♀.  
Sylhet, 29-i-05 [*Hall*]. *Type* in Indian Museum, a unique specimen.  
Kieffer notes another variety in *Rec. Ind. Mus.* VI, 343, ♂, from Simla, 9-v-10 and Kurseong, 20-vi-10.
- aplochirus**, *id.*, *loc. cit.*, 157, ♂ ♀ (1911).  
Sylhet, 6—8-i-05; 1—10-ii [*Hall*]. Four *paratypes* in Indian Museum.
- aploneurus**, *id.*, *loc. cit.*, 158, ♀ (1911).  
Sylhet, 2-xii-04 [*Hall*]. *Type*, a unique specimen, in Indian Museum.
- leptochirus**, *id.*, *loc. cit.*, 158, ♂ ♀ (1911).  
*Id.*, *loc. cit.*, IX, 141, note.  
Kumaon, 22-ix; Calcutta, vii, viii, ix, xii; Port Canning, 6—24-xii; Mandalay, 6—8-i. *Paratypes* in Indian Museum.
- psilochirus**, *id.*, *loc. cit.*, VI, 159, ♂ (1911).  
*Id.*, *loc. cit.*, IX, 141, pl. xii, 14, genitalia tip (*Tendipes*).  
Calcutta, 27-xi-07; Port Canning, 21-vii-07, *type* [*Annandale*].  
*Type* in Indian Museum.
- lasiochirus**, *id.*, *loc. cit.*, VI, 159, ♂ ♀ (1911).  
*Id.*, *loc. cit.*, IX, 141, note (*Tendipes*).  
Port Canning, 21-vii-07 [*Annandale*]. *Paratypes* in Indian Museum.
- filitarsis**, *id.*, *loc. cit.*, VI, 160, ♂ (1911).  
*Id.*, *loc. cit.*, IX, 143, ♀ (*Tendipes*) (1913).  
Calcutta, 26-vii-08, *type* ♂; 23—31-vii; 31-vii-07, *type* ♀ [*Annandale*]; 26-viii; Port Canning, vii [*Annandale*]; Purneah and Katihar [*Paiva*]; Moulmein, 28-ii [*Annandale*]. *Types* in Indian Museum.
- lucernarum**, *id.*, *loc. cit.*, VI, 160, ♀ (1911).  
Calcutta, vi, viii, at light [*Annandale*]. Two *paratypes* only, both in Indian Museum; a variety determined by Kieffer is in the same collection from Calcutta, 20-viii-07.
- calligaster**, *id.*, *loc. cit.*, 160, ♂ (1911).  
*Id.*, *loc. cit.*, IX, 140, note, pl. xi, 12, genitalia tip (*Tendipes*).  
Port Canning, 21-vii-07 (*type*); 6-xii [both *Annandale*]. *Type* in Indian Museum.
- var. **vilis**, *id.*, *loc. cit.*, 161.  
Calcutta, 9-viii-07, at light [*Annandale*]. *Type*, unique, in Indian Museum.

- sexpunctatus**, *id.*, *loc. cit.*, 161, ♀ (1911).  
Calcutta, 15-ii-18 [Annandale] Type, a unique ♀, in Indian Museum.
- callimorphus**, *id.*, *loc. cit.*, 162, ♂ (1911).  
Dawna Hills, 2—3-iii-08 [Annandale] Type, a unique ♂, in Indian Museum.
- viridiventris**, *id.*, *loc. cit.*, 162, ♂ ♀ (1911).  
Mandalay, iv; 11—12-iii-08 [both Annandale]. Paratypes in Indian Museum.
- atrosignatus**, *id.*, *loc. cit.*, 163, ♀ (1911).  
Calcutta, 30-vii [Annandale]; ix [Lloyd]. Type in Indian Museum.
- nudipes**, *id.*, *loc. cit.*, 164, ♂ (1911).  
Calcutta, 10-viii-07 [Annandale]. Type, a unique ♂, in Indian Museum.
- rostratus**, *id.*, *loc. cit.*, 164 ♂ (1911).  
Sylhet, 3-i-05 [Hall]. Type, a unique ♂, in Indian Museum.
- prasiogaster**, *id.*, *loc. cit.*, 165, ♂ (1911).  
Sylhet, 26-ii-04 [Hall]. Type, a unique ♂, in Indian Museum.
- chlorogaster** (I), *id.*, *loc. cit.*, 165, ♂ (1911).  
Mandalay, 12-iii-08 [Annandale]. Type, a single ♂, in Indian Museum.  
N.B.—*Vide chlorogaster* (II), *post.*, p. 78.
- semiviridis**, *id.*, *loc. cit.*, 166, ♂ ♀, pl. vii, 13, wing, 24, genitalia (1911).  
Mandalay, iii; Moulmein, ii [Annandale]; Bettiah, Champaran, Bengal, ii; Noalpur, Nepal, ii; Puri, ii [Paiva]; iii. Types in Indian Museum.
- choricus**, *id.*, *loc. cit.*, 336, ♂ ♀, pl. xiv, 4, tip of ♀ antenna, 5 tip of genitalia (1911).  
Barogh (Simla), ♂ ♂ in air dance at dusk; Sukhwani, 15-ii-08; Dahawangahary Hill, 16-ii-08 (both Nepal); Bijnor Distr., United Prov., India, 24-ii-10. Paratypes in Indian Museum.
- himalayanus**, *id.*, *loc. cit.*, 337, ♂ (1911).  
Mundali, Dehra Dun Distr., 10-v-10. Type, a unique specimen, in Indian Museum.
- fulvescens**, *id.*, *loc. cit.*, 338, ♀, pl. xiv, 6, tip of antenna (1911).  
Butal, Nepal, 12-ii-08. Type belonging to Indian Museum.
- polius**, *id.*, *loc. cit.*, 339, ♂, pl. xiv, 7, ♂ genitalia (1911).  
Kasauli, N.W India, 16-v-08 [Annandale]. Type belonging to Indian Museum.

<sup>1</sup> All the species from *choricus* to *bipunctatus* are described by Kieffer under the inadmissible generic name *Tendipes*.

- nepalensis**, *id.*, *loc. cit.*, 339, ♂ ♀ (1911)  
Noalpur, Nepal, 23-ii-08; Sicktan, 13-ii-08; Simla, 11-v-08  
[Annandale]. *Types* belonging to Indian Museum.
- macroscelus**, *id.*, *loc. cit.*, 340, ♀ (1911).  
Dahawangahary Hill, Nepal, 16-ii-08. *Type* belonging to  
Indian Museum.
- stictogaster**, *id.*, *loc. cit.*, 341, ♂ (1911).  
Simla, 12-v-08 [Annandale]. *Type* belonging to Indian  
Museum.
- rufescens**, *id.*, *loc. cit.*, 341, ♂ (1911).  
Chandan Chowki, United Prov., India, 8-v-07. *Type*  
belonging to Indian Museum.
- sessilis**, *id.*, *loc. cit.*, 342, ♀ (1911).  
Thamaspur, Nepal, 18-ii-08. *Type* belonging to Indian  
Museum.
- pretiosus**, Kieff., Spol. Zeyl. VIII, 11, ♂ ♀, fig. 3, ♂ genitalia  
(1912).  
Peradeniya, 2-vi-10, *type* ♂; 31-v-10, *type* ♀; 21-v; 11-vi-10.  
*Types* in Indian Museum.
- sumptuosus**, *id.*, *loc. cit.*, 12, ♀ (1912).  
Peradeniya, 2-vi-10. *Type* in Indian Museum, a unique ♀
- elatus**, *id.*, *loc. cit.*, 12, ♀ 1912.  
Peradeniya, 2-vi-10. *Type* in Indian Museum, a unique  
specimen.
- superbus**, *id.*, *loc. cit.*, 13, ♂ ♀, fig. 4, ♂ genitalia, part (1912).  
Peradeniya, 14—29-v; 2-vi-10. *Paratypes* in Indian Mu-  
seum.
- gloriosus**, *id.*, *loc. cit.*, 14, ♀ (1912).  
Peradeniya, 20-v-10, at light. *Type* in Indian Museum,  
a unique specimen.
- allothrix**, *id.*, *loc. cit.*, 15, ♀, fig. 5, antenna (1912).  
Peradeniya, 25-v-10, at light. *Type* in Indian Museum, a  
unique specimen.
- perichlorus**, *id.*, *loc. cit.*, 16, ♀ (1912).  
Peradeniya, 17-iv-10. *Type* in Indian Museum, a unique ♀
- chlorogaster** (II), *id.*, *loc. cit.*, 16, ♀ (1912).  
Peradeniya, 17-v-10. *Type*, a unique ♀, in Indian Museum.  
Kieffer has previously described a *Chironomus chlorogaster*  
♂ (*vide ante*, p. 77). He calls the present form a new species.  
*Chlorogaster* ♂ is too damaged to be of much use, but the  
two specimens apparently represent different species.
- heptatomus**, *id.*, *loc. cit.*, 17, ♀ (1912).  
Peradeniya, 2-vi-10. Two *paratypes* in Indian Museum.
- hexatomus**, *id.*, *loc. cit.*, 18, ♀ (1912).  
Peradeniya, 2-vi-10. *Type* in Indian Museum.

**variicornis**, *id.*, *loc. cit.*, 18, ♀ (1912).

Peradeniya, 22-v-10. *Type* in Indian Museum, a unique specimen.

**formosae** Kieff., *Supp. Ent. Berl.* I, 35 (1912).

Formosa.

**sordidus**, *id.*, *loc. cit.*, 36 (1912).

Formosa.

**tainanus**, *id.*, *loc. cit.*, 36 (1912).

Formosa

**formosicula**, *id.*, *loc. cit.*, 37 (1912).

Formosa.

**prasinellus**, *id.*, *loc. cit.*, 37 (1912).

Formosa.

**chlorophorus**, *id.*, *loc. cit.*, 38 (1912).

Formosa.

**chlorostolus**, *id.*, *loc. cit.*, 38 (1912).

Formosa.

**pelochloris**, *id.*, *loc. cit.*, 39 (1912).

Formosa.

**glauciventris**, *id.*, *loc. cit.*, 40 (1912).

Formosa.

**curtitarsis** Kieff., *Rec. Ind. Mus.* IX, 132, ♀ (1913).

Sara Ghat, Ganges Riv., N. Bengal, 23-iii-10, at light [*Annandale*]. *Type* in Indian Museum, a unique specimen.

**longipalpis**, *id.*, *loc. cit.*, 132, ♂, pl. xi, 4, genitalia, pt. (1913).

Port Canning, 24-xii-07 [*Annandale*]. *Type* in Indian Museum, a unique specimen.

**brunettii**, *id.*, *loc. cit.*, 133, ♀ (1913).

Madhupur, Bengal, 15—16-x-09 [*Paiva*]. Three *paratypes* in Indian Museum.

**ornatissimus**, *id.*, *loc. cit.*, 133, ♂ ♀ (1913).

Calcutta, 14-xii-07, *type* ♂; 11-i-08, *type* ♀ [both "at light," and *Annandale*]. *Types* in Indian Museum, a unique pair.

**anomalipes**, *id.*, *loc. cit.*, 134, ♀ (1913).

Bhogaon, 18-x-07 [*Paiva*]. *Type* in Indian Museum, a unique specimen.

**nitidus**, *id.*, *loc. cit.*, 134, ♂, pl. xi, 5, genitalia, pt. (1913).

Calcutta, 26-viii-07. *Type* in Indian Museum, a unique specimen.

There is a *C. nitidus* Mg., from Europe.

**heterocerus**, *id.*, *loc. cit.*, 135, ♀, pl. xi, 6, antenna (1913).

Bettiah, Champaran, Bengal, 4-iii; Calcutta, 13, 30-i; 4-ii; 4-ix. *Paratypes* in Indian Museum.

**glabripes**, *id.*, *loc. cit.*, 135, ♀ (1913).

Calcutta, 17-xii-07. *Type* in Indian Museum, a unique specimen.

- tenuiforceps**, *id.*, *loc. cit.*, 136, ♂ ♀, pl. xi, 7, genitalia, pt. (1913).  
Calcutta, ix, x, xi. *Paratypes* in Indian Museum.
- atrophus**, *id.*, *loc. cit.*, 136, ♂, pl. xi, 8, genitalia, pt. (1913).  
Calcutta, 11-viii-07. *Type* in Indian Museum, a unique specimen.
- orissae**, *id.*, *loc. cit.*, 137, ♂ (1913).  
Puri, 2-iii-08 [*Paiva*]. *Type* in Indian Museum, a unique specimen.
- armatifrons**, *id.*, *loc. cit.*, 137, ♂ (1913).  
Mandalay, 12-iii-08 [*Annandale*]. *Type* in Indian Museum, a unique specimen.
- conifer**, *id.*, *loc. cit.*, 137, ♂, pl. xi, 9, genitalia tip (1913).  
Mandalay, 13-iii-08 [*Annandale*]. *Type* in Indian Museum, a unique ♂; abdomen now missing.
- erythropterus**, *id.*, *loc. cit.*, 138, ♀ (1913).  
Between Bolpore and Rampore Haut, Bengal, at light, in railway carriage, 3-viii-07 [*Paiva*]. *Type* in Indian Museum, a unique specimen.
- glabrimanus**, *id.*, *loc. cit.*, 138, ♀ (1913).  
In company with *erythropterus*. *Type*, a unique ♀, in Indian Museum.
- bipunctatus**, *id.*, *loc. cit.*, 139, ♀ (1913).  
Rangoon, ii [*Annandale*]. *Type* in Indian Museum.
- perileucus**, *id.*, *loc. cit.*, x, 314, ♂ ♀ (1914).  
Calcutta (Indian Museum gardens), 10-16-vii. *Type* in Indian Museum.

### **Tripelina**, Kieff.

Rec. Ind. Mus. IX, 128 (1913).

GENOTYPE, *T pallidum* Kieff., the original species.

- pallidum** Kieff., *loc. cit.*, 128, ♂ ♀ (1913).  
Calcutta, 9-xi; 23-xi, at light [*Annandale*]. *Paratypes* in Indian Museum.

### Family PSYCHODIDAE.<sup>1</sup>

#### Subfamily PSYCHODINAE.

### **Psychoda**, Latr.

Précis gen. Ins. 152 (1796).

Sch. Fauna Austr. II, 635: Brun., Rec. Ind. Mus. II, 369, notes; iv, 289 (tab. Ind. spp.); 291, notes: *id.*, Fauna Brit. Ind. Dipt. I, 218.

<sup>1</sup> For general family notes see Brun., Rec. Ind. Mus. IV, 289, and Fauna, 196.



*Trichoptera* Mg., Illig. Mag. II, 261 (1803).

*Tinearia* Schlnbrg. Gen. des mouches (1803), pl. 40, fig. 1, *a, b, c*, fig. 2, *b, d*.

GENOTYPE, *Tipula phalaenoides*, L.

**bengalensis** Brun., Rec. Ind. Mus. II, 371, ♂ ♀, pl. xxiv, 1, wing, 2, antenna, 3, ♂ genitalia (1908).

*Id.*, loc. cit., IV, 295 (localities): *id.*, Fauna Brit. Ind. 229, ♂ ♀, pl. iv, 6, antenna, 8, genitalia ♂

India, common in many localities for the greater part of the year, E. and W Himalayas up to 8000 ft.; Peradeniya, 8-vi-10; Moulmein, 25-ii-08; Tenasserim, iii; Rangoon iii. *Types* in Indian Museum.

**distincta**, *id.*, Rec. Ind. Mus. II, 372, ♀, pl. xxiv, 4, wing, 5, antenna (1908).

*Id.*, loc. cit., IV, 298: *id.*, Fauna Brit. Ind. 225, ♀, pl. iv, 12, wing, 13, antenna.

Sylhet, 1-i-05 [*Hall*]. *Type* in Indian Museum.

**albnotata**, *id.*, Rec. Ind. Mus. II, 373, ♀, pl. xxiv, 7, wing (1908).

*Id.*, loc. cit., IV, 298: *id.*, Fauna Brit. Ind. 224, ♀

Calcutta, 5-6-i-08 [*Annandale*], vii; Sylhet, January [*Lt.-Col. Hall*]. *Type*, a unique specimen, in Indian Museum.

**albonigra**, *id.*, Rec. Ind. Mus. II, 374, ? ♀ (1908).

*Id.*, loc. cit., iv, 295: *id.*, Fauna Brit. Ind. 228.

Calcutta [*Annandale*]. *Type* in Indian Museum.

**nigripennis**, *id.*, Rec. Ind. Mus. II, 376, ♂ ♀, pl. xxiv, 8, antenna (1908).

*Id.*, loc. cit., IV, 297 (localities): *id.*, Fauna Brit. Ind., 232, ♂ ♀, pl. iv, 16, flagellum.

India, common from April to August in many Indian localities, hills and plains; Travancore, xi; E. and W Himalayas up to 9000 ft., the next commonest species after *bengalensis*. *Types* in Indian Museum.

**vittata**, *id.*, Rec. Ind. Mus. II, 377, ♀ (1908).

*Id.*, loc. cit., IV, 298, ♂: *id.*, Fauna Brit. Ind., 233, ♂ ♀

Calcutta, 11-26-vii-08; 16-xi-08; 11-vi to 2-vii-08 [*Annandale*]; Maddathorai, Travancore, 18-xi-08, *type* ♂ *Type* in Indian Museum.

**geniculata**, *id.*, Rec. Ind. Mus. IV, 294, ♀ (1911).

*Id.*, Fauna Brit. Ind., 227, ♀

Peradeniya, x-10 [*Green*]. *Type*, a unique ♀, in Indian Museum.

**distans**, *id.*, Rec. Ind. Mus. IV, 296, ♀ (1911).

*Id.*, Fauna Brit. Ind., 230, ♀

Maddathorai, Travancore, 16-xi-08 [*Annandale*]. *Type*, a unique ♀, in Indian Museum.

**albopicta**, *id.*, Rec. Ind. Mus. IV, 296, ♀ (1911).

*Id.*, Fauna Brit. Ind., 231, ♀

Pusa, 8-i; Ceylon. *Type*, a unique ♀, in Pusa collection.

- fulvohirta**, *id.*, Rec. Ind. Mus. IV, 297, ♀ (1911).  
*Id.*, Fauna Brit. Ind., 233, ♀  
 Darjiling, 7-viii-09, *type* [*Paiva*]; Kurseong, 26-vi-10 [*Annandale*]. *Type* in Indian Museum.
- orbicularis**, *id.*, Rec. Ind. Mus. IV, 298, ♀ (1911).  
*Id.*, Fauna Brit. Ind., 231, ♀  
 Pusa, 21-xii-08. *Type*, a unique ♀, in Pusa collection.
- decora** Brun., Rec. Ind. Mus. IV, 299, ♀ (1911).  
*Id.*, Fauna Brit. Ind., 226, ♀  
 Tenmalai (Travancore), 22-xi-08 [*Annandale*]. *Type*, unique, in Indian Museum.
- maculipennis** Brun., Rec. Ind. Mus. IV, 299, ? ♂ (1911).  
*Id.*, Fauna Brit. Ind., 223, ? ♂  
 Peradeniya, 17-vi-10 [*Green*]. *Type*, a unique specimen, in Indian Museum.
- transversa** Brun., Rec. Ind. Mus. IV, 300, ? ♀ (1911).  
*Id.*, Fauna Brit. Ind., 226, ? ♀  
 Kurseong, 20-vi-10 [*Annandale*]. *Type* in Indian Museum, a unique specimen.
- hirtipennis** Brun., Rec. Ind. Mus. IV, 300, ♀ (1911).  
*Id.*, Fauna Brit. Ind., 227, ♀  
 Kurseong, 5-ix-09 (*type*); Bangalore, 15-x-10; Maddathorai, 18-xi-08; Trivandrum, 12—13-xi-08 [last three *Annandale*]; Calcutta Botanical Gardens, 27-xi-10 [*Gravelly*]. *Type* in Indian Museum.
- apicalis** Brun., Rec. Ind. Mus. IV, 301, ? ♀ (1911).  
*Id.*, Fauna Brit. Ind., 223, ? ♀  
 Maddathorai, 16-xi-08 [*Annandale*]. *Type*, apparently a female, in Indian Museum, a unique specimen.
- notatipennis** Brun., Rec. Ind. Mus. VIII, 151, pl. vi, 4, wing (1913).  
 N.E. Indian Frontier. *Type*, sex uncertain, a unique specimen, in Indian Museum.

### Pericoma, Walk.

Ins. Brit. Dipt. 256 (1856).

Sch. F. Austr. II, 632: Brun., Rec. Ind. Mus. IV, 301, tab. orient. spp.: *id.*, Fauna Brit. Ind. I, 234.

GENOTYPE, *Trichoptera fasciata* Mg., by Coquillett's designation, 1910.

- spinicornis** Brun., Rec. Ind. Mus. II, 378, ♂; pl. xxiv, 9, antennal joint, 10, genitalia ♂, 11, wing (*appendiculata*) (1908).  
*Id.*, *loc. cit.*, iv, 304, locs.: *id.*, Fauna Brit. Ind., 238, ♂ ♀; pl. iv, 4, base of antenna, 15, wing.  
*appendiculata*, Brun., Rec. Ind. Mus. II, 379 (1908).

- E. and W Himalayas, not uncommon from early May to early October in many localities. Siliguri, base of Darjiling Hills, 18—20-vii-07 [*Hodgart*]. *Types* in Indian Museum.
- annandalei** Brun., Rec. Ind. Mus. II, 380, ♀ (1908).  
*Id.*, *loc. cit.*, 304: *id.*, Fauna Brit. Ind., 237, ♀  
 Kurseong, 5-vii-08, *type*; 22—29-vi-10 [both *Annandale*].  
*Type* in Indian Museum.
- margininotata** Brun., Rec. Ind. Mus. II, 381, ♂ ♀; pl. xxiv, 12, wing (1908).  
*Id.*, *loc. cit.*, iv, 304: *id.*, Fauna Brit. Ind., 240, ♂ ♀  
*P. bella*, Brun., Rec. Ind. Mus. II, 383, ♀ (1908).  
*P. margininotata*, var. *bella*: *id.*, Fauna Brit. Ind., 241, ♀  
 Simla, 25-iv-07; 11-v-08; 9—10-v-09; Phagu, 11—15-v-09 [all *Annandale*]; Darjiling, 26-v-10, end of Sept. and Oct. 1, 08 (including *type* of *bella*) [both *Brunetti*]; Kurseong, 25—27-vi-10 [*Annandale*]; Pallode, Travancore, 15-xi-08 [*Annandale*].  
*Types* of *margininotata* (typical form) and *bella* var. in Indian Museum.
- lacteitarsis** Brun., Rec. Ind. Mus. II, 382, ♀ (*margininotata*, var. *lacteitarsis*), (1908).  
*lacteitarsis*, *id.*, *loc. cit.*, IV, 307: *id.*, Fauna Brit. Ind., 245.  
 Kurseong, 4-vii-08, *type*; Quilon, Travancore, 9-xi-08 [both *Annandale*]. *Type* in Indian Museum.
- gilvipes** Brun., Rec. Ind. Mus. II, 382, ♀ (*margininotata*, var. *gilvipes*), (1908).  
*gilvipes*, *id.*, *loc. cit.*, iv, 308, notes: Fauna Brit. Ind., 246, ♀  
 Calcutta, 28-vii-08, *type*, 2-viii-08, 17—18-vii-08, 9-ii-10, 8—23-viii-08, 1—26-ix-08 [all *Annandale*]; Madhupur, Bengal, 17-x-09, at light [*Paiva*]; Ernakulam, Cochin, 4-xi-08; Quilon, 9-xi-08 [both *Annandale*]. *Type* in Indian Museum.
- squaminnervis** Brun., Rec. Ind. Mus. IV, 303, ? ♀ (1911).  
*Id.*, Fauna Brit. Ind., 237, ? ♀  
 Kurseong, 4-viii-08 [*Annandale*]. Unique *type* in Indian Museum.
- metatarsalis** Brun., Rec. Ind. Mus. IV, 305, ♀ (1911).  
*Id.*, Fauna Brit. Ind., 243, ♀  
 Simla, 9-v-09, *type*; 12-v-09; Phagu, 11-v-09 [all *Annandale*].  
*Type* in Indian Museum.
- mixta** Brun., Rec. Ind. Mus. IV, 306, ♀ (1911).  
*Id.*, Fauna Brit. Ind., 244, ♀  
 Simla, 6-v-09 [*Annandale*]. Unique *type* in Indian Museum.
- proxima** Brun., Rec. Ind. Mus. IV, 308, ? ♂ (1911).  
*Id.*, Fauna Brit. Ind., 245, ? ♂  
 Peradeniya, viii-1910 [*Green*]. Unique *type* in Indian Museum.
- impunctata** Brun., Rec. Ind. Mus. IV, 309 (1911).

- Id.*, Fauna Brit. Ind., 247.  
 Tenmalai, Travancore, 22 xi-08 [Annandale]. The unique  
*type* in Indian Museum, of uncertain sex.
- unicolor** Brun., Rec. Ind. Mus. IV, 309 (1911).  
*Id.*, Fauna Brit. Ind., 247.  
 Kurseong, xi-1910 [D'Abreu]. Unique *type*, of uncertain  
 sex, in Indian Museum.
- indica** Eaton., Trans. Linn. Soc. Lond. XV, 424, figs. (1913).  
 India, also the Seychelles.

### Brunettia, Annand.

- Rec. Ind. Mus. V, 141 (1910).  
 Brun., Rec. Ind. Mus. IV, 310: *id.*, Fauna Brit.  
 Ind., 248.  
*Diplonema*, Annand. (*nec* Loew.), Rec. Ind. Mus.  
 IV, 39 (1910).
- superstes** Annand., Jour. Asiat. Soc. Beng. (new ser.) IV, 353, ♂ ♀ ;  
 pl. xii, var. chars. [*Diplonema*] (1908).  
*Id.*, Rec. Ind. Mus. V, 142, ♂ ♀ , redescr: fig. genitalia ♂ ;  
 pl. xii, var. chars. [*Brunettia*] (1910).  
 Brun. Fauna Brit. Ind., 249, ♂ ♀ , fig. 34 (♂ genitalia), 35  
 venation, pl. iv, 1, full insect, 3 head.  
 Kurseong, vi-vii [Annandale]. *Types* in Indian Museum.
- indica** Eaton, Trans. Linn. Soc. Lond. XV, 424, ♂ ♀ ; pl. xxvi,  
 fig. 2, a-f; fig. 3, a-f (1913).  
 Matheran, Western Ghats, Bombay, 800 metres, 8-vii-02 [Biro].

### Parabrunettia, Brun.

- Rec. Ind. Mus. IV, 310, 311, tab. spp. (1911).  
 Brun. Fauna Brit. Ind., 251.  
 GENOTYPE, *Psychoda squamipennis*, Brun., by  
 original designation.
- squamipennis** Brun., Rec. Ind. Mus. II, 375, ♀ (*Psychoda*), (1908).  
*Id.*, Fauna Brit. Ind., 252, ♀  
 Calcutta, 5-viii-07 [Annandale]. Unique *type* in Indian  
 Museum.
- argenteopunctata** Brun., Rec. Ind. Mus. II, 375, ♀ ; pl. xxiv, 6,  
 wing (*Psychoda*), (1908).  
*Id.*, Fauna Brit. Ind., 254, ♀  
 Calcutta, 27-viii-07. Unique *type* in Indian Museum.
- atrisquamis** Brun., Rec. Ind. Mus. II, 376, ♀ (*Psychoda*), (1908).  
*Parabrunettia atrisquamis*, *id.*, *loc. cit.*, iv, 312: Fauna Brit. Ind.,  
 253, fig. 36, wing, pl. iv, 2, full insect.  
*Brunettia travancorica*, Annand., Rec. Ind. Mus. V, 144, ♀ ; pl.  
 xii, var. chars. (1910).  
 Calcutta, 22-vii-08, *type* ♀ [Annandale]; Peradeniya, 18-vii,  
 14-viii and x-1910 [Green]; base of Western Ghats, Travancore,

xi-08 (*type of travancorica*), xi-08 [Annandale]. *Types* in Indian Museum.

**albohumeralis** Brun., Rec. Ind. Mus. IV, 312, ♀ (1911).

*Id.*, Fauna Brit. Ind., 254.

Peradeniya, ix—x-10 [*Gravelly*]. *Type* in Indian Museum.

**novemnotata** Brun., Rec. Ind. Mus. IV, 313, ♀ (1911).

*Id.*, Fauna Brit. Ind. 255, ♀

Puri, Orissa, 12-xi-10 [Annandale]. *Unique type* in Indian Museum.

**flavicollis** Brun., Rec. Ind. Mus. IV, 314, ♂ (1911).

*Id.*, Fauna Brit. Ind., 256, ♂

Peradeniya, viii-10. *Unique type* in Indian Museum.

**longichaeta** Brun., Rec. Ind. Mus. IV, 314, ♂ (1911).

*Id.*, Fauna Brit. Ind., 256, ♂

Maddathorai (Travancore), 17-xi-08 [Annandale]; Bangalore, 3000 ft., x [Annandale]. *Type* in Indian Museum.

Referred doubtfully and provisionally to the present genus.

#### Subfamily PHLEBOTOMINAE.<sup>1</sup>

##### Phlebotomus, Rond.

Mem. prima ditt. Ital., 12 (*Flebotomus*), (1840).

*Phlebotomus*, Sch. F. Austr. II, 630: Brun., Fauna Brit. Ind., 199; tab. Ind. spp. 203: Annand., Rec. Ind. Mus. IV, 43, tab. Ind. spp.: Spol. Zeyl. VII, 57, notes, tab. spp. (incorrect): *l.c.*, VII, 159 (corrected table): Alcock, Entom. for Med. Officers, 119 (brief description of oriental species).

*Cyniphes*, G. Costa, Ann. Accad. Aspir. Natural I, 4 (1843).

*Hebotomus*, Rond., Ann. So. Ent. Fr. (2), I, 264 (1843).

*Haemasson*, Loew, Stett. Ent. Zeit. V, 115 (1844).

GENOTYPE, *Bibio papatasii*, Scop.

**papatasii** Scop., Deliciae Faun. Flor. Insul. I, 55, pl. xxii, fig. B (*Bibio*), (1786): Sch. F. Austr. II, 630: Grassi, Mem. So. Ital. Sci. (3) XIV, 353 (copious descriptions and figs., also life-history) (1907): Annand., Rec. Ind. Mus. IV, 51, ♂ ♀ redescr., pl. iv, 4, wing; pl. vi, 2, ♂ genitalia: Newstead, Bull. Ent. Res. II, 76; Brun., Fauna Brit. Ind. 211, ♂ ♀, figs. 26—31, var. chars.: Summers, Jour. Lond. Sch. Trop. Med. II, 105, fig. ♂, genitalia.

*Flebotomus papatasii*, Rond., Mem. Ditt. Ital., 13, pl. (1840).

<sup>1</sup> For subfamily characters see Brun., Rec. Ind. Mus. IV, 289 and Fauna Brit. Ind. 199.

*Hebotomus*, *id.*, *id.*, Ann. So. Ent. Fran. (2) I, 265, pl. x, 1—4 (1843).

*Cyniphes molestus*, Costa, Ann. Accad. Aspir. Nat. I, 4 (1843).

*Haemasson minutus*, Loew (*nec* Rond.), Stett. Ent. Zeit. V, 115, pl. i, 1—5 (1844).

? *Phlebotomus angustipennis*, de Meij. Tijd. v. Ent., LII, 202, pl. xii, 14, wing (veins incorrectly numbered), (1909).

*Phlebotomus* sp., Howlett, in Lefroy's Indian Insect Life, 560, fig. 359, ♂ genitalia (1909).

Rawalpindi, Chitral, 6000 ft., Quetta, Miranshad, N.W. Frontier [*Walton*]; Punjab; Poona, Kirkee (near Bombay), viii-07; Lahore; North Bengal, common in April, Pusa. It also occurs in South Europe, Palestine, Egypt and elsewhere. *Type*, Prof. Bezzi informs me this is no longer in existence. That of *angustipennis* is in the Amsterdam Museum.

**minutus** Rond., Ann. So. Ent. Fran. (2), I, 263 (1843).

Brun., Fauna Brit. Ind., 206, ♂ ♀ (1912): Alcock, Jour. Lond.

Sch. Trop. Med. I, 205 (♀ dimorphism): Summers, *loc. cit.*

II, 106: Howlett, Ind. Jour. Med. Res. I, 34.

*babu*, Annand., Rec. Ind. Mus. IV, 49, ♂ ♀, pl. iv, 1, wing, pl. vi, 3, 3a, ♂, genitalia (1910).

*babu* var. *niger*, Annand., Rec. Ind. Mus. IV, 320 (1911): Summers, Jour. Lond. Sch. Trop. Med. II, 109.

*Phlebotomus* sp., Howlett, in Lefroy's Indian Insect Life, 559, fig. 358 (1909).

India, "probably all over the plains of India" [*Annandale*]; Rawalpindi, September [*C. W. Mason*]; Quetta, Chitral, Allahabad, October [*Imms*]; Rajmahal, on the Ganges, July, Asansol, Purneah, Pusa [*Howlett*]; Madhupur, Puri, Calcutta (all the year); Port Canning, Igatpuri, Bombay (Western Ghats), November; Poona, Kirkee, Rambha (N.E. Madras); Trivandrum, Pallode and Maddathorai (all in Travancore) in November; Peradeniya. It also occurs in South Europe. *Type* in Florence Museum; *types* of *babu*, ♂ ♀, in Indian Museum.

**argentipes** Annand. and Brun., Rec. Ind. Mus. II, 101, ♂ ♀, fig. wing (veins incorrectly numbered), (1908).

Annand., *loc. cit.*, IV, 44, ♂ ♀, redescr. fig. 4 (p. 42), ♂ genitalia, pt; pl. iv, 3, wing, pl. vi, 6, ♂ genitalia: Brun., Fauna

Brit. Ind., 207, ♂ ♀, pl. iv, 5, ♂ genitalia: Summers, Jour.

Lond. Sch. Trop. Med. II, 108.

*P. marginatus*, Annand., Spol. Zeyl. VII, pt. xxvi, 62, ♀, fig. 7, wing (1910).

*P. argentipes* var. *marginatus*, Brun., Fauna Brit. Ind., 209, ♀: Summers, Jour. Lond. Sch. Trop. Med. II, 109.

India, generally distributed, found in Calcutta at least all the year round; Peradeniya, iii, vi, vii. *Types* of *argentipes*, ♂ ♀ and *type* of *marginatus*, a unique ♀, in the Indian Museum.

**perturbans** de Meij., Tijd. v. Ent. LII, 201, pl. xii, 13, wing (veins incorrectly numbered), (1909).

Annand., Rec. Ind. Mus. IV, 47, ♂ ♀, redescr. pl. v, 3, wing; pl. vi, 5, 5a, 5b, ♂ genitalia (1910): Brun., Fauna Brit. Ind., 205, ♂ ♀, pl. iv, 11, ♂ genitalia: Summers, Jour. Lond. Sch. Trop. Med. II, 112.

Java; Sukna (base of Darjiling Hills), 1—3-vii, common "at light" [*Annandale*]. Type in Amsterdam Museum.

**major** Annand., Rec. Ind. Mus. IV, 46, ♂, pl. v, 4, wing; pl. vi, 4, ♂ genitalia (1910): Brun., Fauna Brit. Ind., 210, ♂, pl. iv, 7, ♂ genitalia: Summers, Jour. Lond. Sch. Trop. Med., II, 110.

*Phlebotomus* sp., Giles, Gnats or Mosquitoes (2nd ed.), 5, fig. 2 (1902).

East and West Himalayas from base up to 8000 ft., Naini Tal, vii; Simla vii; Kurseong, iv to vii, base of Nepalese Himalayas, Paresnath, W Bengal, iv. Type in Indian Museum.

var. *griseus*, Annand., Rec. Ind. Mus. IV, 320 (*grisea*), (1911).

Brun., Fauna Brit. Ind., 211: Summers, Jour. Lond. Sch. Trop. Med. II, iii.

Kurseong, vi-1910 [*Annandale*]. Type in Indian Museum.

var. *perniciosus*, Newstead, Bull. Ent. Res. II, 70, ♂ ♀ (as a good species) (1911).

Brun., Fauna Brit. Ind., 211, ♂ ♀: Summers, Jour. Lond. Sch. Trop. Med. II, 107. This variety is recorded from Malta.

**malabaricus** Annand., Rec. Ind. Mus. IV, 48, ♂ ♀, pl. v, 1, head, 2, wing; pl. v, 1, ♂ genitalia (1910).

Brun., Fauna Brit. Ind., 214, ♂ ♀: Summers, Jour. Lond. Sch. Trop. Med. II, 111.

Travancore (var. locs.), "at light", xi-08 [*Annandale*]. Types in Indian Museum.

**himalayensis** Annand., Rec. Ind. Mus. IV, 50, ♂ ♀, pl. iv, 2, wing; pl. vi, 7, ♂ genitalia (1910).

Brun., Fauna Brit. Ind., 204, ♂ ♀, pl. iv, 10, ♂ genitalia: Summers, Jour. Lond. Sch. Trop. Med. II, 109.

East and West Himalayas, 4000 to 7000 ft. Naini Tal (Bhowali); Kurseong, common at both places, May to July.

**zeylanicus** Annand., Spol. Zeyl. VII, 60, ♂ ♀, fig. 4, full insect, ♀, 5, wing, 6, ♂ genitalia (1910).

Brun., Fauna Brit. Ind., 215, ♂ ♀, fig. 32, full insect, pl. iv, 14; Summers, Jour. Lond. Sch. Trop. Med. II, 112: Newstead, Bull. Ent. Res. V, 187.

Peradeniya, v, vi, vii, viii. Types in Indian Museum.

**stantoni** Newstead, Bull. Ent. Res. V, 109, ♀ (1914—1915).

Kuala Lumpur, 15-vi-14 [*Dr. Stanton*], a unique ♀

## CULICIDAE.

The subdivision and arrangement of genera and species in this family has been a source of much difficulty. In the Anophelini there has been no hesitation in referring the bulk of the species to *Anopheles* itself, as is now done by most recent writers, the only other groups accorded generic rank here being *Calvertina* and *Bironella*. *Chagasia*, a non-oriental genus, was the only other one regarded as valid in the Anophelini in my "Critical Review." The classification, however, of the rest of the Culicinae is still in a very transitory state, and some attempt has been made to meet the views of others. A certain number of the recently established genera are evidently valid, others appear entitled to subgeneric rank, whilst the remainder must be regarded as of indefinite taxonomic value at present. When a genus with all its species has been bodily sunk in another by Mr. Edwards, the synonymy has been at once accepted, as the sooner invalid generic names are permanently shelved the better. No doubt a good many other genera will be weeded out as synonymous when the oriental species have been thoroughly overhauled by systematists.

In the present catalogue the subfamily Culicinae is divided merely into Anophelini and Culicini, as though the group Megarhini is apparently distinct enough, it is more than can be said for the groups or sections dominated by such genera as *Aedes*, *Culex*, *Sabethes*, etc., so that while the juggling of genera and higher groups still continues even amongst those best fitted to dictate,<sup>1</sup> no harm will be done by lumping them all together under the general term Culicini without assigning it any definite taxonomic value.

The accidental omission of the heading "Subfamily Megarhininae" in both my Catalogue of Culicidae and the Supplement gave the impression that the genera concerned were to be considered Anophelines, which of course was never intended.

Theobald's sequence of genera has been mainly followed because that author's work is known to all students in this family, and also because of personal inability to dogmatise.

As regards specific synonymy it has frequently been a case of "when doctors disagree" both metaphorically and actually, and in such instances I have usually followed the latest writer, or whichever has had any purely entomological support.

The wholesale overthrowing of a large proportion of the recently manufactured genera and species was early foretold by other systematists as well as by me, and the truth of the prophecy is visible in their continual reduction in almost every paper now published. It is to be hoped that the new species erected nowadays will prove to be founded on more reliable characters.

As regards location of types in this family considerable difficulty has been experienced. Respecting Leicester's species, Mr.

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<sup>1</sup> There are, for instance, several genera which Mr. Edwards regards as anomalous.



Edwards wrote me that "types or typical specimens" of nearly all his species were in the collection that he presented to the British Museum, also that Dr. Leicester had not made it a rule to designate individual specimens as types. The types of Theobald's species, except when otherwise stated, are presumably in the British Museum also.

### Subfamily CULICINAE.

#### GROUPS IN CULICIDAE HIGHER THAN GENERA.<sup>1</sup>

##### **Anophelinae.**

Theob., Gen. Ins., Fasc., 26, 5: *id.*, Monog. Culic., IV, 18; tab. gen., 22; V, 1, tab. gen.: Blanch., Moust., 157, tab. gen., 159: Leices., Culic. Mal., 18, and tab. gen.: Brun., Rec. Ind. Mus. I, 302; IV, 414.

##### **Anophelini.**

Brun., Rec. Ind. Mus. X, 32, notes, tab. gen.

##### **Anophelina.**

Theob., Monog. Culic. I, 97, III, 9: Giles, Handbk., etc., 2nd ed., 280.

##### **Anophelines.**

How., Dyar and Knab, Mosq. N. Amer. III, pt. I, 193.

##### **Epialurgi.**

Alcock, Ent. Med. Off. Ind. 64.

##### **Culicinae.**

Theob., Gen. Ins., Fasc. 26, 26, 30: *id.*, Monog. Culic. IV, 19, 147 and tab. gen.; V, 112 and tab. gen.: Blanch., Moust., 231: tab. gen., 152, 390: Giles, Handbk., etc., 2nd ed., 334, tab. gen., Leices., Culic. Mal., 64: Alcock, Ent. Med. Off. Ind., 94: Brun., Rec. Ind. Mus. I, 326, IV, 439: Patton and Cragg, Text-bk. Med. Entom., 192: Edw., Bull. Ent. Res. II, 241, tab. African gen.

##### **Culicini.**

Brun., Rec. Ind. Mus. X, 35, notes and tab. gen.: How., Dyar and Knab, Mosq. N. Amer. III, pt. 1, 189, tab. N. Amer. gen. 194: IV, pt. 2, 525.

<sup>1</sup> For the convenience of those who may desire it, this short list is given of the various sections into which the mosquitoes have been divided by recent writers. Only the principal sections and references are given, as they form no integral part of the present catalogue. In Howard, Dyar and Knab's monumental work the fullest particulars can be obtained. No attempt at systematic sequence is made in listing them as the great majority of the groups will probably be entirely ignored in the early future.

**Culicina.**

Theob., Monog. Culic. I, 97, 247; III, 124: Giles, Handbk., etc., 2nd ed., 333, tab. gen., 334.

**Culicines.**

How., Dyar and Knab, Mosq. N. Amer. III, pt. I, 192.

**Culicales.**

Alcock, Ent. Med. Off. Ind., 94.

**Megarhininae.**

Theob., Gen. Ins., Fasc., 26, 12: *id.*, Monog. Culic. IV, 19, 126 (*Ankylorhynchae*, Lutz. and *Lynchiellina*, Lahille, given as synonymous), V, 88: Blanch., Moust., 218, tab. gen. 221: Leices., Culic. Mal., 48; Brun., Rec. Ind. Mus. IV, 434.

**Megarhinina.**

Theob., Monog. Culic. I, 97, 215, III, 113: Giles, Handbk., etc., 2nd ed., 265.

**Megarhini.**

Brun., Rec. Ind. Mus. X, 34, notes and tab. gen.

**Megarhines.**

How., Dyar and Knab, Mosq. N. Amer. III, pt. I, 193.

**Megalorrhini.**

Alcock, Ent. Med. Off. Ind., 113.

**Toxorhynchitinae.**

Theob., Gen. Ins., Fasc., 26, 13.

**Joblotinae.**

Theob., Gen. Ins., Facs, 26, 33: Blanch., Moust. 428 and tab. gen.

**Joblotina.**

Theob., Monog. Culic., III, 334.

**Aedeomyinae.**

Theob., Gen. Ins., Fasc. 26, 33, tab. gen., 34: Giles, Handbk., etc., 2nd ed., 475: Blanch., Moust., 153, tab. gen.: Leices., Culic. Mal., 180 and tab. Malay gen.: Brun., Rec. Ind. Mus. I, 362; IV, 487.

**Aedeomyina.**

Theob., Monog. Culic. I, 98; II, 218; III, 275.

**Aedeinae.**

Blanch., Moust., 399, tab. gen.

**Aedinae.**

Theob., Monog. Culic. IV, 19, 537; V, 482.

**Aedomina.**

Giles, Handbk., etc., 2nd ed., 475.

**Uranotaeniae.<sup>1</sup>**

Theob., Monog. Culic. IV, 19, 556; V, 497.

**Sabethini.**

How., Dyar and Knab, Mosq. N. Amer. IV, pt. 1 19: Brun., Rec. Ind. Mus. X, 48, notes and tab. gen.

**Sabettinae, Blanch.**

Theob., Monog. Culic. V, 574: Blanch., Moust., 420 and tab. gen.

**Wyeomyinae.**

Leices., Culic. Mal., 250.

**Metanototricha.**

Alcock, Ent. Med. Off. Ind., 114.

**Trichoprosoponina.**

Theob., Monog. Culic. I, 98; II, 283; IV, 585 (*Trichoprosoponinae*); V, 554.

**Dendromyinae, Lutz.**

Theob., Monog. Culic. IV, 20, 594, V, 574.

**Limatinae.**

Theob., Monog. Culic. IV, 627; V, 595.

**Deinoceratinae.<sup>2</sup>**

Theob., Monog. Culic. V, 553.

**Deinoceratines.**

How., Dyar and Knab, Mosq. N. Amer. III, pt. 1, 191.

**Heptaphloeomyinae (*Heptaphloeomyina*).**

Theob., Gen. Ins., Fasc., 26, 41: *id.*, Monog. Culic. III, 336; IV, 531; V, 481: Blanch., Moust., 398.

<sup>1</sup> This genus is attributed to Mitchell by Theobald, but he gives no reference.

<sup>2</sup> The name *Deinoceratinae* is attributed by Theobald to Mitchell without giving any reference.

## Sect. ANOPHELINI.

Anopheles, Mg.<sup>1</sup>

Mg., Syst. Besch. I, 10 (1818).

Sch. F. Austr. II.

GENOTYPE, *A. maculipennis* Mg., by general European acceptance.*Conchyliastes*, Theob., in Howard's "Mosquitoes," 235 (1901).GENOTYPE, *Culex posticatus* W., as *musicus* Say, by Coquillett's designation.*Cycloleppter*on, Theob., Monog. Culic. II, 312 (1901).*Id.*, *id.*, Jour. Trop. Med. IV, 234, *nom. nud.* (1901).GENOTYPE, *Anopheles grabhami* Theob., by original designation.*Cyclolepidopter*on, Blanch. (*Cycloleppter*on, emend.), Moust., 185 (1905).*Grassia*, Theob., Jour. Trop. Med. V, 181 (1902).GENOTYPE, *Anopheles rossii* Giles, by original designation.*Myzomyia*, Blanch., Comp. rend. Soc. Biol. Paris, LIV, 795 (1902), *nom. nov.* for *Grassia*, Theob., preocc. Fisch., 1885.*Id.*, Theob., Monog. Culic. III, 12,<sup>2</sup> 24; IV, 41, 42, tab. spp.; V, 16, tab. spp.: *id.*, Gen. Ins., Fasc. 26, 7: Blanch., Moust., 177: James and List., Monog. Anoph. Mosq. Ind., 2nd ed., 40: James, Rec. Ind. Mus. IV, 98: Leices., Culic. Malaya, 23: Brun., Rec. Ind. Mus. I, 305: IV, 417: X, 66 (*mia, lapsus*): Alcock, Entom. Medic. Officers, 79.*Howardia*, Theob., Jour. Trop. Med. V, 181 (1902).GENOTYPE (presumably), *Anopheles costalis* Lw.*Pyretophorus*, Blanch., Comp. rend. Soc. Biol. Paris LIV, 795 (1902); *nom. nov.* for *Howardia*, Theob., preocc. Dalla Torre, 1897 in Insecta.*Id.*, Theob., Monog. Culic. III, 66; IV, 63, 64, list and tab. spp.; V, 36, tab. spp.: *id.*, Gen. Ins., Fasc. 26, 8: Blanch. Moust., 186: James and List., Monog. Anoph. Mosq. Ind., 2nd ed., 41: James, Rec. Ind. Mus. IV, 99: Brun., *loc. cit.*, I, 312; IV, 423, X, 70: Leices., Culic. Malaya, 37.*Rossia*, Theob., Jour. Trop. Med. V, 181 (1902).GENOTYPE, *Anopheles sinensis* Wied., by original designation.*Myzorhynchus*, Blanch., Comp. rend. Soc. Biol. Paris LIV, 795 (1902): *nom. nov.* for *Rossia*, Theob., preocc. Owen, 1838 in Mollusca, also used by Bonaparte in same year.

<sup>1</sup> Full references to this well-known genus, *sensu lato*, are not given, as Schiner's description amply portrays the view of the older authors. These references can be gleaned from Kertész's Catalogue. For interesting descriptions of larvae of Malayan *Anopheles* see Stanton, "The Larvae of Malayan *Anopheles*," Bull. Ent. Res. VI, 159. For tables to determine Indian Anophelines see James, Paludism, No. 2, 52.

<sup>2</sup> Theobald here suggests *funesta*, Giles, as type of *Myzomyia*, which is impossible, having already selected *rossii*. Edwards has noted this.

- Id.*, Theob., Monog. Culic. III, 84, pl. v, wing scales; IV, 81, list and tab.; V, 49, tab. spp.: Theob., Gen. Ins., Fasc. 26, 9: Blanch., Moust., 190: James, Rec. Ind. Mus. IV, 102: Leices., Culic. Malaya, 29 (*Myzorhyncus*): Brun., Rec. Ind. Mus. I, 313; IV, 424, X, 66: Alcock, Entom. Medic. Officers Ind., 74.
- Laverania*, Theob., Jour. Trop. Med. V, 181 (1902).  
GENOTYPE, *Anopheles argyrotarsis* R. Desv., by original designation.
- Nyssorhynchus*, Blanch., Comp. rend. Soc. Biol. Paris LIV, 795 (1902): *nom. nov.* for *Laverania*, Theob., preocc. Billett, 1895 in Protozoa; also again by Grassi and Filletti in 1900.<sup>1</sup>
- Id.*, Theob., Monog. Culic. III, 92, pl. v, wing scales, IV, 95, 96, list and tab. spp.; V, 55, tab. spp.: Theob., Gen. Ins., Fasc. 26, 10: Blanch., Moust., 202: James and List. Anoph. Mosq. Ind., 2nd ed., 43: James, Rec. Ind. Mus. IV, 100; Leices., Culic. Malaya, 39: Brun., Rec. Ind. Mus. I, 317; IV, 428; X, 67: Alcock, Entom. Medic. Officers Ind., 85.
- Stethomyia*, Theob., Jour. Trop. Med. V, 181 (1902).  
Theob., Monog. Culic. III, 62, pl. viii, wing scales; IV, 59, tab. spp.; V, 35, tab. spp.: Theob., Gen. Ins., Fasc. 26, 8: Blanch., Moust., 186: Brun., Rec. Ind. Mus. I, 312; IV, 423; X, 72.  
GENOTYPE, *S. nimba* Theob., by original designation.
- Cellia*, Theob., Monog. Culic. III, 107 (1903).  
Theob., *loc. cit.*, IV, 105, list and tab. spp.; V, 67, tab. spp.: Theob., Gen. Ins., Fasc. 26, 11: Blanch., Moust., 214: James, Rec. Ind. Mus. IV, 102: Leices., Culic. Malaya, 46: Brun., Rec. Ind. Mus. I, 321; IV, 431; X, 57: Alcock, Entom. Medic. Officers Ind., 90.  
GENOTYPE, *Anopheles pharoensis* Theob.<sup>2</sup>
- Aldrichia*, Theob., Monog. Culic. III, App., 353 (1903).  
Theob., Gen. Ins., Fasc. 26, 11: Blanch., Moust., 624: Brun., Rec. Ind. Mus. I, 322; X, 55.  
GENOTYPE, *Aldrichia error* Theob., sp. nov., by original designation.
- Arribalzagia*, Theob., Monog. Culic. III, 81 (1903).  
GENOTYPE, *A. maculipes* Theob., sp. nov., by original designation.
- Alcock, Entom. Medic. Officers Ind., 77.
- Christya*, Theob., Rep. Sleep. Sick. Royal Soc. VII, p. 34 (1903).  
Giles, Revis. Anophelinae, 40 (*Chrystya*) (1904): Alcock, Entom. Medic. Officers Ind., 77.

<sup>1</sup> Blanchard suggested *Anopheles albimanus* W., as type species, but as his name is only a *nomen novum* the original genotype must stand. Even Theobald himself (Monog. III, 14) suggested *maculatus* Theob., as type species, which is impossible after originally selecting *argyrotarsis*, Rob. Desv. Edwards has noted this.

<sup>2</sup> This species was apparently selected as genotype by Theobald, but his original paper is not accessible to me.

- GENOTYPE, *C. implexa* Theob., sp. nov., by original designation.
- Lophomyia*, Giles, Jour. Trop. Med. VII, 366 (1904).
- GENOTYPE, *Lophoscelomyia asiatica* Theob., sp. nov., by original designation.
- Lophoscelomyia*, Theob., Entom. XXXVII, 12 (1904).
- Blanch., Moust., 635: Theob., Monog. Culic. IV, 91: Leices., Culic. Malaya, 21: Brun., Rec. Ind. Mus. IV, 427; X, 64: Theob., Gen. Ins., Fasc. 26, 10 (*Lophocelomyia*): Brun., Rec. Ind. Mus. I, 316 (*Lophocelomyia*): Giles, Jour. Trop. Med. VII, 366 (*Lophomyia*).
- GENOTYPE, *L. asiatica* Theob., by original designation.
- Kerteszia*, Theob., Ann. Mus. Hung. III, 66 (1905).
- Theob., Monog. Culic. IV, 117: Brun., Rec. Ind. Mus. IV, 431; X, 63.
- GENOTYPE, *K. boliviensis* Theob., sp. nov., by original designation.
- Nototricha*, Coq., Class. Mosq. N. Amer., 12 (1906).
- Theob., Monog. Culic. V, 33 (*Notonotricha*, emend.) (1910).
- GENOTYPE, *Cyclolepteron mediopunctatus* Theob., by original designation.
- Coelodiazesis*, Dyer and Knab, Jour. N. Yk. Ent. Soc. XIV, 77 (1906).
- GENOTYPE, *Anopheles barberi* Coq., by original designation.
- Erected on larval characters only and therefore inadmissible.
- Feltinella*, Theob., Monog. Culic. IV, 56 (1907).
- GENOTYPE, *F. pallidopalpi* Theob., sp. nov., by original designation.
- Myzorhynchella*, Theob., *loc. cit.*, IV, 78 (1907).
- GENOTYPE, *M. nigra* Theob., sp. nov., *loc. cit.*
- Neocellia*, Theob., *loc. cit.*, IV, 111 (1907).
- Theob., *loc. cit.*, V, 73, tab. spp.: James, Rec. Ind. Mus. IV, 101: Brun., *loc. cit.*, IV, 432; X, 66: Alcock, Entom. Medic. Officers Ind., 89.
- GENOTYPE, *N. indica* Theob., by personal designation, 1914.
- Manguinhosia*, Cruz in Peryassu, Os. Culic. do Brasil, 112 (1908).
- GENOTYPE, *M. lutzi* Cruz, sp. nov., the only species.
- Patagiamyia*, James, Rec. Ind. Mus. IV, 98 (1910).
- James and List., Monog. Anoph. Mosq. Ind., 2nd ed., 41: Brun., Rec. Ind. Mus. IV, 417; X, 68.
- GENOTYPE, *Anopheles gigas* Giles, by original designation.
- Neostethopheles*, James, Rec. Ind. Mus. IV, 98 (1910).
- James and List., Monog. Anoph. Mosq. Ind., 2nd ed., 40: Brun., Rec. Ind. Mus. IV, 422; X, 67.
- GENOTYPE, *Anopheles aitkenii* James, in Theob., by original designation.
- Nyssomyzomyia*, James, Rec. Ind. Mus. IV, 101 (1910).
- James and List., Monog. Anoph. Mosq. Ind., 2nd ed., 43: Brun., Rec. Ind. Mus. IV, 422, X, 67.

GENOTYPE.<sup>1</sup>

*Christophersia*, James, Rec. Ind. Mus. IV, 103 (descr.) (1910).

James, Paludism, I, 33 (*nom. nud.*) (July 1910): Brun., Rec. Ind. Mus. IV, 431; X, 57.

GENOTYPE, *C. hallii* James, by original designation.

*Dactylomyia*, Newstead and Carter, Ann. Trop. Med. IV, 377 (1910).

GENOTYPE, *Anopheles tessellatus* Theob., as *D. ceylonica*, sp. nov., by original designation.

*Neomyzomyia*, Theob., Monog. Culic. V, 29 (1910).

James, Rec. Ind. Mus. IV, 109: Brun., *loc. cit.*, IV, 417, X, 68.

GENOTYPE, *Anopheles elegans* James, in Theob., by original designation.

*Aldrichinella*, Theob., Monog. Culic. V, 77 (1910); *nom. nov.* for *Aldrichia*, Theob., preocc. Coq., 1894 in Diptera: Brun., Rec. Ind. Mus. IV, 433; X, 55.

*Memnemyia*, Strickland, Ind. Jour. Med. Res. III, 201 (1915) for *Anopheles brevipalpis*, Roper.

Of the synonyms of *Anopheles* as given by me in my recent "Critical Review" all are accepted as such by Messrs. Howard, Dyar and Knab except *Conchyliaastes* and *Coelodiazesis*. The former is sunk by the American authors in *Psorophora*, a culicine genus, and the latter is erected on larval characters, the adult not being recognizable from *Anopheles*, with which genus Edwards and other of the most recent writers incorporate it.

*sinensis* Wied., Auss. Zweifl. I, 547, ♂ ♀ (1828).

*Anopheles sinensis*, Frnfd., Verh. zool. bot. Ges. Wien, XVII, 449: Theob., Monog. Culic. I, 137, ♀, fig. 30, wing scales, pl. xxxvii, 146, ♀, typical form, full ins. col.; pl. A, wing scales: Giles, Handbk., etc., 160: *id.*, 2nd ed., 305; pl. viii, 9, wing scales, ♀: Stanton, Ind. Jour. Med. Res. III, 255: Chris., *loc. cit.*, III, 480: Waterston, Bull. Ent. Res. IX, 5.

*Myzorhynchus sinensis*, Theob., Monog. Culic. III, 89, fig. 53, palpus, ♀: Giles, Jour. Trop. Med. VII, 365: Blanch., Moust., 190, ♀, fig. 170, wing scales: Leices., Culic. Malaya, 30, ♂ ♀ (*Myzorhynchus*): Brun., Rec. Ind. Mus. I, 315; IV, 426: James, Monog. Anoph. Mosq. Ind., 2nd ed., 120, col. pl. xv, full ins. ♀: Strickland, Bull. Ent. Res. IV, 139.

*Anopheles sinensis*, subspecies *indiensis*, Theob., Monog. Culic. I, 145.

*Anopheles nigerrimus*, James and List. (*nec* Giles), Monog. Anoph. Mosq. Ind., 79, ♀; col. pl. iii, full ins.

*Anopheles plumiger*, Don., Insektenborse XVIII, 37, ♂ ♀ (1901).

*Anopheles jesoensis*, Tsuzuki, Centr. fur Bakteriologie. XXXI, 763 (1902).

<sup>1</sup> Major James selects *rossii*, which is impossible, as this species was definitely made the type of *Grassia*, Theob. (renamed *Myzomyia*, Blanchard). Major James places two other species in *Nyssomyzomyia*, *ludlowi*, Theob., and *punctulata*, James and List.

- Don., Zeits. f. Hyg. XLIII, 231.  
*Anopheles pseudopictus*, Grassi, Atti R. Acad. Lincei Rendic. VIII, 109 (1899).  
*Myzorhynchus peditaeniatus*, Leices., Culic. Malaya, 31, ♂ ♀ (*Myzorhynchus*) (1908).  
*Id.*, *id.*, Brun., Rec. Ind. Mus. IV, 425: Strickland, Bull. Ent. Res. IV, 135.  
*Anopheles argyropus*, Swellengrebel, Tydsch. Ned. Ind. Geneesk. LIV, 334 (1914).

Widely distributed throughout the East. India, Assam, Burma, Java, Sumatra, Siam, Philippines, Formosa, China, Japan. *Type* of *sinensis*, presumably at Vienna, that of *plumiger* in Berlin Museum, described from East India and Hongkong: of *peditaeniatus* in Leicester collection. *A. jesoensis*, Tsuzuki is synonymous with *barbirostris*, Wulp, according to Christophers. The latter writer would also sink *nigerrimus*, Giles; *nigerrimus*, James and Liston, and *minutus*, Theobald, as synonyms of *sinensis*, W., typical form, or of the variety *vanus* of Theobald, with which Christophers only queries *vanus* of Walker (which takes precedence in the name) as synonymous. The synonymy of *pseudopictus* is on the authority of Waterston.

- plumbeus** Hal., Zool. Jour. III, 501 (descr. sine nom.); 503 (named by Steph.) (1828).  
*Anopheles plumbeus*, Chris., Ind. Jour. Med. Res. III, 489; pl. xxviii, var. chars.  
*A* (*Coelodiazesis*) *plumbeus*, Edw., Bull. Ent. Res. VII, 201.  
*nigripes*, Staeg. Nat. Hist. Tij. II, 252 (1839).  
*barianensis*, James and List., Monog. Anoph. Mosq. Ind., 2nd ed., 76 (1911): Brun., Rec. Ind. Mus. IV, 415.  
*barberi*, Coq., Can. Ent. XXXV, 310 (1903).  
 Barien, Murree Hills, Punjab, 7000 ft. [*Wredde*].  
*A. plumbeus* was described (without a name) by Haliday amongst notes on other insects from the north of Ireland, the species being christened *plumbeus* by Stephens two pages further on in the same journal. The Kertesz Catalogue attribute the species to Stephens and sinks it as synonymous with *bifurcatus*, L.

- pictus** Lw., Dipt. Beit. Posen, p. 4 (1845).  
 Theob., Monog. Culic. IV, 124: Brun., Rec. Ind. Mus. IV, 434.  
*Type* in Berlin Museum. A species of uncertain validity according to some authors.

Recorded from Haut Tonkin and Harioi.

- vanus** Walk., Proc. Linn. Soc. Lond. IV, 91, ♀ (1860).  
 Giles, Handbk., etc., 158.  
*Myzorhynchus vanus*, Blanch., Moust., 196, ♂ ♀: Brun., Rec. Ind. Mus. I, 316; IV, 427.  
*Anopheles sinensis*, W., "sub. sp., *annularis* Wulp," Theob., Monog. Culic. I, 142, ♂ ♀; fig. 32, head; pl. v, 18, ♀; pl. A, wing scales.



*Myzorhynchus sinensis annularis*, Theob., Monog. Culic., I, 142; III, 90.

*nec annularis*, Wulp, Notes Leyd. Mus. VI, 249 (1884).

*Myzorhynchus minutus*, Theob., Monog. Culic. III, 91, ♀ (1903).

Brun., Rec. Ind. Mus. I, 314; IV, 425.

*Anopheles minutus*, Strickland, Bull. Ent. Res. IV, 136.

Lahore [*Christophers*], Sambalpur, Centr. Prov., India [*D. O'C. Murphy*]; Calcutta, x, xi, xii; Port Canning; Quilon, 27-vii-01 [*James*]; Malacca; Madras [*Cornwall*]; Dondra, Ceylon, 4-xii-07 [*Green*], Galle, Ceylon, 8-xii-07 [*Green*]; Perak [*Wright*]; Taiping [*Wray*]; Penang [*Freer*]; Kuala Lumpur [*Durham*]; Dindings; Luzon, 7-ix-01, Pangasinan, Manila, Albay, Laguna, Bulacan, Tayabas, Cavite, Bataan, Rizul, Nueva Ecija [all Philippine Is. iv, and vi to i, *Ludlow*]; Celebes, Java, China. *Types* of *vanus* and *minutus* in British Museum, the former much damaged.

Leicester thinks *vanus* synonymous with *sinensis*, Wied., but Theobald and Strickland keep them distinct. Major Christophers considers the *vanus* of Theobald only a variety of *sinensis*, Wied., but seems uncertain whether it is identical with *vanus*, Walk. In this var. *vanus*, Theob., he also sinks *nigerrimus*, Giles and *minimus*, Theob.

**barbirostris** Wulp, Notes Leyd. Mus. VI, 248, ♀ (1884).

Wulp, Tijd. v. Ent. XXVIII, 79, ♀; pl. iv, 1: Theob., Monog. Culic. I, 146, ♀; fig. 33, head; fig. 34, wing (also see p. 151), pl. A, wing scales: Giles, Handbk., etc., 146 2nd ed., 308, ♂ ♀; pl. viii, 13a, wing, ♂ ♀: James and List., Anoph. Mosq. India, 77, ♀; pl. x, 1, wing scales; pl. v, larval figs.; col. pl. ii, full insect ♀: Roper, Bull. Ent. Res. V, 146: Strickland, Ind. Jour. Med. Res. III, 253; Chris., Ind. Jour. Med. Res. III, 462.

*Myzorhynchus barbirostris*, Theob., Monog. Culic. III, 86, fig. 25, larval hairs; pl. iii, wing: Theob., Gen., Ins. Fasc. 26; pl. i, 3, full insect ♀: Blanch., Moust. 197: James, Monog. Anoph. Mosq. Ind., 2nd ed., col. pl. xiv, full ins. ♀: Brun., Rec. Ind. Mus. I, 314; IV, 424: Strickland, Bull. Ent. Res. IV, 139.

*Myzorhynchus barbirostris*, Leic., Culic. Malaya, 33, ♂ ♀

India, common and widely distributed. Assam, Burma, Kuala Lumpur, Klang, Malay States, Siam, Sumatra, Papua, Philippines (var. locs. common), Andamans, also occurs in old Calabar, West Africa and Japan. *Type* in Leyden Museum.

Christophers gives *jesoensis*, Tsuzuki (with the reference, Arch. f. Schiffs. vi [1902]), as synonymous with *barbirostris*, but other authors have regarded it as identical with *sinensis*.

**annularis** Wulp., Notes Leyd. Mus. VI, 249, ♂ ♀ (1884).

Wulp., Tijd. v. Ent. XXVIII, 80, pl. iv, 2, head, profile: Giles, Handbk., etc., 159.

*Myzomyia annularis*, Brun., Rec. Ind. Mus. IV, 418.

*Myzorhynchus annularis*, Brun., Rec. Ind. Mus. I, 314.  
nec "annularis, Wulp." of Theob., etc.

Ardjoeno, Java [*Hekmeijer*]. Type in Leyden Museum.

By some authors (Theob., Monog. I, 142) once regarded as a variety of *sinensis*, W; but the *annularis* of Theobald is *vanus*, Walk.

**subpictus** Grassi, Atti R. Accad. Lincei Rendic., VIII, 1 (1899).

Brun., Rec. Ind. Mus. I, 323; IV, 434.

Recorded from "India Orientalis" in the Kertesz Catalogue (I, 254), but it seems an uncertain species. Type in Rome University Museum.

**rossii** Giles, Jour. Trop. Med. II, 63, ♂ ♀ (1899).

Theob., Monog. Culic. I, 154, ♂ ♀, fig. 37, wing and cross-veins, fig. 38, palpus ♂, thorax ♀, costal border, ♂ ♀, unguis ♂; pl. A, wing scales; pl. iii, 10, ♂, 9, ♀ (both full ins. col.): Giles, Handbk., etc., 149; 2nd ed., 311, ♂ ♀; pl. ix, 11, wing, ♂ ♀, claws: James and List., Anoph. Mosq. India, 109, pl. vi, 1, larval figs.; pl. x, 3, wing scales; col. pl. xii, full ins. ♀: Patton and Cragg, Textbk. Med. Entom., 196, larva; Chris., Ind. Jour. Med. Res. III, 476.

*Myzomyia rossii*, Theob., Monog. Culic. III, 45, fig. 23, wing, ♀; figs. (pp. 46, 47), larval hairs; pl. iii, wing; pl. vi, wing scales: Blanch., Moust., 178, ♂ ♀; fig. 162, wing; fig. 163, transverse veins: Leices., Culic. Malaya, 25, ♀ ♀: Brun., Rec. Ind. Mus. I, 309; IV, 421 (*rossii*, lapsus), (copious notes).

*Nyssomyzomyia rossii*, James, Monog. Anoph. Mosq. Ind., 2nd ed., col. pl. xi, full ins. ♀

*Anopheles vagus*, Don., Beit. z. Kennt. Anoph., 80 (1902).

var. **indefinita** Ludl., Can. Ent. XXXVI, 299, ♀ (*Myzomyia rossii*, var. *indefinita*) (1904).

Ludl., Bull. Ent. Res. VI, 155 (synonymy cleared up).

*Myzomyia indefinita*, Theob., Monog. Culic. IV, 47: Brun., Rec. Ind. Mus. IV, 47.

*Myzomyia rossii*, subspecies *indefinita*, Brun., Rec. Ind. Mus. I, 310.

*Myzomyia parangensis*, Ludl., Psy. XXII, 137—140 (1915).

India, widely distributed in the plains throughout the year. Sylhet, i, ii, iv, v, vi [*Hall*]; Chittagong, vii, viii, ix [*Hall*]; Ceylon, abundant; Penang [*Free*]; Straits, var. locs. [*t. Leices.*]; Perak [*Wray, Wright*]; Kuala Lumpur [*Durham*]; Singapore, 22-vii-99 [*Hanitsch*]; Phrapatoon, Siam, i, iii, viii, ix [*Woolley*]; Philippines, numerous localities, common [*Ludlow*]; Deli, iii-14; Korinchi Valley, Sungei Penoh, 2700 ft., iii-14; Lampongs, vi-14 [all Sumatra and *t. Stanton*]. The typical form mainly confined to British India and Ceylon, the var. *indefinita* mainly to the Philippines.

**fuliginosus** Giles, Handbk. Gnats Mosq., 160 (1900).

Giles, Handbk., etc., 2nd ed., 298. ♂ ♀; pl. viii, 7, wing, palpus ♂ ♀, scutellum scale: Theob., Monog. Culic. I, 132, ♀, figs. 27, 28, pl. i, 3 (full ins. col. ♀): James, Sci. Mem. Med. Off. India, No. 2, fig. 18 (p. 39, larval chars.): James and Liston, Anoph. Mosq. India, 91, pl. v, 2, larval figs.; pl. x, 4, wing scales; col. pl. v, full ins. ♀: Chris., Ind. Jour. Trop. Med. III, 464.

*Nyssorhynchus fuliginosus*, Theob., Monog. Culic. III, 93; IV, 100 (life-history): Blanch., Moust., 206, fig. 179, normal wing: Brun., Rec. Ind. Mus. I, 317; IV, 428: James, Anoph. Mosq. Ind., 2nd ed., col. pl. vii, full ins. ♀

*Anopheles jamesii*, Liston, Ind. Med. Gaz. XXXVI, p. 441 (no sex stated) (1901).

*nec jamesii*, Theob., Monog. Culic. I, 134.

*Anopheles leucopus*, Don., Insektenborse XVIII, 37, ♂ ♀ (1901).

var. **adieii** James and List.

*Nyssorhynchus fuliginosus*, Giles, var. *adieii*, James and Liston, Anoph. Mosq. Ind., 2nd ed., 89 (1911): Chris., Ind. Jour. Med. Res. III, 465.

*Anopheles nagpori*, James and Liston, Anoph. Mosq. Ind., 1st ed., 101 (1904).

*Anopheles fuliginosus*, var. *nagpori*, *id.*, *loc. cit.*, 2nd ed., 90 (1911).

var. **nivipes** Theob.

*Nyssorhynchus nivipes*, Theob., Entom. XXXVI, 258, ♂ (1903).

*Anopheles fuliginosus*, var. *nivipes*, Chris., Ind. Jour. Med. Res. III, 466.

Theob., Monog. Culic. IV, 101, ♀; Leices., Culic. Malaya, 44, ♂ ♀; (*Nyssorhynchus*): Brun., Rec. Ind. Mus. I, 319; IV, 429.

var. **pallida** Theob.

*Nyssorhynchus fuliginosus*, Giles, var. *pallida*, Theob., Monog. Culic. I, 134, fig. 28b (p. 133), wing (1901).

Blanch., Moust., 205, fig. 179b, wing, var. *pallida*.

*A. fowleri*, Chris., Paludism II, 64 (1911).

The typical form of *fuliginosus*, Giles, is common throughout India and Burma up to 3000 ft. occurring in many localities during the greater part of the year; probably generally distributed further east. Ceylon, Assam, Java, Samatra, Phil. Is. (var. locs.). The *adieii* variety occurs from the N.W. Frontier to Assam during winter: var. *nivipes* comes from Burma, Kuala Lumpur, i [Durham], and Klang; also from the Andamans. Type of *fuliginosus* probably lost. According to Christophers the typical specimens in the British Museum are probably others supplied by Ross. Type of *nagpori* in Central Malaria Bureau, Kasauli, of *nivipes*, *pallida* and *jamesii* in British Museum. An apparent discrepancy occurs in *fowleri* figuring in this Catalogue further on as a separate species. From Major Christophers' recent paper I understand him to mean that the

forms *fowleri* and var. *pallida* are probably identical, but that he grants the former name specific rank *pro. tem.*

**nigerrimus** Giles, Handb. Gnats Mosq., 161, ♀ (1900).

Theob., Monog. Culic. I, 150: Giles, Handb., etc., 2nd ed., 306.

*Myzorhynchus nigerrimus*, Blanch., Moust., 197: Brun., Rec. Ind. Mus. I, 314; IV, 425.

nec "*nigerrimus*, Giles," James and Liston, Anoph. Mosq. Ind., 79 (1900).

Naini Tal [Giles]; Sylhet [Hall]; Calcutta [Alcock, Annandale, Daniels]; Port Canning [Annandale]; Jalpaiguri, Dacca, Lahore, Travancore [James]; Madras. Type in British Museum. Christophers, in a recent paper, sinks this species as synonymous with var. *vanus*, Theob., of *sinensis*, Wied., including also the *nigerrimus* of James and Liston.

**lindesayi** Giles, Handb. Gnats Mosq., 166, ♀ (*lindesaii*) (1900).

Giles, Handb., etc., 2nd ed., 323, ♀, pl. x, 8, wing ♀ (*lindesaii*): Theob., Monog. Culic. I, 203, pl. v, 19, ♀ (full ins. col.): James and List., Anoph. Mosq. Ind., 117, col. pl. xv (full ins. ♀): Blanch., Moust., 169: Brun., Rec. Ind. Mus. I, 304; IV, 416.

Chris., Ind. Jour. Med. Res. III, 470.

*Patagiamyia lindesayi*, James, Anoph. Mosq. Ind., 2nd ed., 62, redescr., figs., col. pl. ii, full ins. ♀

Bakloh, Punjab, 6000 ft., vii [Lindsay]; Ferozepore [Nurse]; Raneghat, 4000 ft. [James]; Himalayas, var. locs., 2000 up to 7000 ft., Naini Tal [Giles]; Mussoorie; Bhim Tal, ix, 06 [Annandale]; Murree, 7000 ft.; Tret, 4600 ft. Dehra Dun [Thomson]; Kurseong, Palni Hills, Nilgiri Hills, Assam.

var. **maculata** Theob., Rec. Ind. Mus. IV, 1, ♀ (1910).

Brun., Rec. Ind. Mus. IV, 416.

Kurseong, 5-vii-08 [Annandale]. Type of *lindsayi*, in British Museum, of *maculata* in Indian Museum.

**gigas** Giles, Ent. Month. Mag. XXXVII, 196, ♂ ♀ (1901).

Theob., Monog. Culic. II, 308, ♂ ♀: James and List., Anoph. Mosq. Ind., 118: Giles, Handbk., etc., 2nd ed., 316, ♂ ♀; pl. x, 2, wing, ♂ ♀: Brun., Rec. Ind. Mus. I, 303; IV, 416: Chris., Ind. Jour. Med. Res. III, 467.

*Myzomyia gigas*, Blanch., Moust., 184.

*Patagiamyia gigas*, James, Rec. Ind. Mus. IV, 98.

*Patagiamyia simlensis*, James and List., Anoph. Mosq. Ind., 2nd ed., 66, ♂ ♀ (1911).

*Anopheles simlensis*, Brun., Rec. Ind. Mus. IV, 416.

*Anoph. gigas*, var. *simlensis*, Alcock, Jour. Lond. Sch. Trop. Med. II, No. 3, p. 161 (1913).

*Anoph. gigas*, var. *refutans*, *id.*, *loc. cit.*, p. 161.

Himalayas; Mahasu, near Simla, 8000 ft., viii; Kathlighat, Garhwal Distr., 6000 ft. [Imms]; Murree [Maj. Smith]; Deesa,

W. Centr. India [*Nurse*]; Coonoor, Nilgiri Hills, 5000—6000 ft. [*Price*]; Khasi Hills; Pachmarhi Hills; Ceylon (hills) [*t. Alcock*; *Green*]. Type of *gigas* in British Museum; of *simlensis* in Central Malaria Bureau, Kasauli.

**culicifacies** Giles, Ent. Month. Mag. XXXVII, 197, ♀ only, the ♂ renamed *turkhuudi*, List. (1901).

Theob., Monog. Culic. II, 309, ♀ *nec* ♂ (*t. Theob., loc. cit., III, 48*): Giles, Handbk., etc., 2nd ed., 317, pl. ix, 12, ♀ *nec* ♂: James and List., Anoph. Mosq. Ind., 106, pl. ix, 2, wing scales, pl. viii, 1, larval figs.; col. pl. xi, full ins. ♀: Chris., Ind. Jour. Med. Res. III, 463.

*Myzomyia culicifacies*, Theob., Proc. Royal Soc. LXIX, 379, ♀: *id.*, Monog. Culic. III, 39, fig. (p. 40), larval hairs; pl. iii, wing; pl. viii, wing scales; IV, 51; V, 25: Blanch., Moust., 182, ♀: James, Monog. Anoph. Mosq. Ind., 2nd ed., pl. iii, full ins. col. ♀: Brun., Rec. Ind. Mus. I, 305; IV, 404 (criticism on name of species), 418.

*Myzomyia culicifacies*, var. *punjabensis*, James, Anoph. Mosq. Ind. 72 (1911).

*Anopheles listoni*, Giles, Ent. Month. Mag. XXXVII, 197, ♂ ♀ (1901).

*Id.*, Handbk., etc., 2nd ed., 319, ♂ ♀; pl. x, 4, wing, ♂ ♀; head, ♂ ♀: Theob., Monog. Culic. II, 311, App. ♀

*nec listoni*, Liston,

*Anopheles indicus*, Theob., *loc. cit.*, I, 183, ♀ (1901).

*Anopheles indicus*, Giles, Handbk., etc., 2nd ed., 320, ♀

*Pyretophorus sergenti*, Theob., Monog. Culic. IV, 68 ♀, fig. 16, wing (1907).

India, common, generally distributed up to 3000 ft.; Mandalay [*Annandale*]; Dr. Gough says it ranges from Algeria to India, and Edwards records it from as far west as Lake Tiberias. *Types* of *culicifacies* and *indicus* in British Museum; also of *listoni*, presumably the type ♂ attributed to *culicifacies*, Giles; of *punjabensis* in Central Malaria Bureau, Kasauli.

According to the strict rules of zoological nomenclature, since two species were confused at the time of description, the name *culicifacies* should have been retained for the ♂ (now known as *turkhuudi*, List.), and the ♀ (still known as *culicifacies*) should have been renamed (*v. my* Cat. Or. Culic. Supp., p. 404).

**theobaldi** Giles, Ent. Month. Mag. XXXVII, 198, ♀ (1901).

Giles, Handbk., etc., 2nd ed., 299, ♀: Theob., Monog. Culic.

II, 311 (App.) ♀: James and List., Anoph. Mosq. Ind., 97, col. pl. viii, full ins. ♀: Chris., Ind. Jour. Med. Res. III, 482.

*Nyssorhynchus theobaldi*, Theob., Monog. Culic. III, 95: Blanch., Moust. 210: Brun., Rec. Ind. Mus. I, 320; IV, 430.

James, Monog. Anoph. Mosq. Ind., 2nd ed., col. pl. x, full ins. ♀

*Anoph. maculatus*, var. *theobaldi*, Alcock, Jour. Lond. Sch. Trop. Med. II, No. 3, p. 164 (1913).

Ellichpur (Centr. Ind.) [*Liston*]; Shahjahanpur, 19-x-00 [*Giles*]; Dacca [*Macrae*]; Nagpur [*Stephens*]; Sambalpur [*Murphy*]; Lahore, x; Bombay; Benguet, Phil. Is., iii, iv, xi. Also occurs in the Aden hinterland. *Type* in British Museum.

**kochi** Don., Insektenborse XVIII, 36, ♂ ♀ (1901).

Theob., Monog. Culic. I, 174, ♀; pl. iv, 16 ♀, full ins. col. Edwards, Bull. Ent. Res. IV, 222; Gough, Bull. Ent. Res. V, 142; Roper, *loc. cit.*, V, 129, life-history; Chris., Ind. Jour. Med. Res. III, 469.

*Nyssorhynchus kochi*, Blanch., Moust., 208.

*Cellia kochi*, Theob., Monog. Culic. III, 110; Leices., Culic. Malaya, 46, ♂ ♀; Brun., Rec. Ind. Mus. I, 321; IV, 431.

*Anopheles ocellatus*, Theob. (MS. name only), Monog. Culic. II, 306, note as to name.

Giles, Handbk., etc., 2nd ed., 315, ♀, pl. ix, 5, wing ♀, dorsum of thorax.

*Cellia flava*, Ludl., Can. Ent. XL, 32, ♂ ♀ (1908); Brun., Rec. Ind. Mus. IV, 431.

*Nyssorhynchus flava*, Ludl., Psy. XVIII, 126 (1911).

*Christophersia hallii*, James, Paludism I, 32, ♂ ♀, figs. var. chars. (1910). James and List., Anoph. Mosq. Ind., 2nd ed., 123; Brun., Rec. Ind. Mus. IV, 431.

Sylhet, 4-ii-05; 7-iv-05; vi, 31-vii-05; 15-xii-05 [all *Hall*]; Singapore [*Biro*]; Taiping, Perak, Kuala Lumpur, xii-02 [*Durham*]; Malay Peninsula, var. locs.; Padarg, Sumatra [*t. Donitz*]; Deli, iii-14; Lampongs, vi-14 [both Sumatra, *t. Stanton*]; Serang and Tjimahi, Java [*t. Donitz*]; Tayabas, Phil. Is., ix-07. *Type* of *ocellatus* in British Museum; of *flava* in Army Medical Museum, Washington; of *hallii* in Indian Museum.

Theobald had described this species in the MS. of his Monograph as *ocellatus*, but as the description of Donitz's *kochi* was published just before Theobald's work, he allowed his own description to stand as that of *kochi*, and in Vol. II, 306, he again notes that *ocellatus*, Theob., is a MS. synonym of *kochi*, in case specimens may exist in any collection under the MS. name.

**punctulatus** Don., Insektenborse XVIII, 36, ♂ ♀ (1901).

Roper, Bull. Ent. Res. V, 144.

*nec Anopheles, id.*, Theob., Monog. Culic. I, 175.

*Cellia punctulata*, Theob., Monog. Culic. IV, 109; Brun., Rec. Ind. Mus. IV, 432.

Stephansort, Papua; Herbertshohe, Bismarck Archipelago [both *t. Donitz*]. See note under *A. tessellatus*.

Mr. Roper (Bull. Ent. Res. V, 144) makes *tessellatus*, Theob., a synonym of this species, but I have retained Mr. Edwards' view in keeping them distinct.

**leucosphyrus** Don., Insektenborse XVIII, 37, ♀ (1901).

Theob., Monog. Culic. II, 307, App. ♀; Roper, Bull. Ent. Res. V, 193; Chris., Ind. Jour. Med. Res. III, 469.

- Myzomyia leucophyrus*, Giles, Handbk., etc., 2nd ed., 312, fig. 44, wing: James and List., Anoph. Mosq. Ind. 82: Leices., Culic. Malaya, 28, ♂ ♀: Brun., Rec. Ind. Mus. I, 307.
- Nyssorhynchus leucophyrus*, Blanch., Moust., 213, ♀
- Neomyzomyia leucophyrus*, Brun., Rec. Ind. Mus. IV, 417.
- Myzomia elegans*, James in Theob., Monog. Culic. III, 51, ♀; fig. 28, wing scales, cross veins, 29, wing (1903).
- Myzomyia elegans*, Brun., Rec. Ind. Mus. I, 306.
- Anopheles leucosphyrus*, var. *elegans*, James and List., Monog. Anoph. Mosq. Ind., 82, ♀; pl. ix, 4, wing scales; pl. xii, wing, palpus, leg, larva.
- Pyretophorus*, *id.*, Theob., Monog. Culic. IV, 77.
- Neomyzomyia elegans*, James, Theob., Monog. Culic. V, 30, ♂ ♀; two figs. of ♀, wing and other chars. (This description by Theobald): Brun., Rec. Ind. Mus. IV, 417.
- Karwar, iv [Cogill]; Meenglas, Jalpaiguri [Wallich]; Andaman Is. [Ray White]; Kajoe Janam, N. of Padang, Sumatra [*t. Donitz*]; Deli, iii-14; Lampongs, vi-14 [both Sumatra and *t. Stanton*]; Moearah Tewah, Borneo [*t. Donitz*]; Malay Peninsula. *Type* of *elegans* in British Museum.
- turkhudi** Liston, Ind. Med. Gaz. XXXVI, 441, no sex stated, apparently ♀ (1901).
- Giles, Handbk., etc., 2nd ed., 320, ♀ (footnote): James, Sci. Mem. Ind. No. 2, 49; fig. 27, wing; fig. 28, larval chars.: James and List., Anoph. Mosq. Ind., 115, pl. viii, 2, larval figs.; col. pl. xiv, full ins. ♀: James, Anoph. Mosq. Ind., 2nd ed., col. pl. v, full ins. ♀: Gough, Bull. Ent. Res. V, 133, new syns. and notes: Chris., Ind. Jour. Med. Res. III, 483.
- Myzomyia turkhudi*, Theob., Monog. Culic. III, 48, ♀; pl. iii, wing (1903).
- Blanch, Moust., 183: Brun., Rec. Ind. Mus. I, 311, IV, 422.
- Anopheles culicifacies*, Giles, Ent. Month. Mag. XXXVII, 197 (1901).
- Theob., Monog. Culic. II, 309, ♂ only: Giles, Handbk., etc., 2nd ed., 317, ♂; pl. ix, 12, ♂ ♀: Theob., Proc. Roy. Soc. LXIX, 379, ♂; fig. 2 (p. 380), genitalia ♂
- Anopheles multicolor*, Camboulin, C. R. Acad. Sci. Paris, CXXV, 704 (1902).
- Anopheles impunctus*, Don., Zeits. f. Hygiene, XLI, 67; pl. ii, 15 (1902).
- Pyretophorus chaudoyei*, Theob., Monog. Culic. III, 68 (1903).
- P. nigrifasciatus*, *id.*, *loc. cit.*, IV, 65 (1907).
- P. myzomyfasciatus*, *id.*, *loc. cit.*, IV, 69 (1907).
- Pyretophorus cleopatra*, Willcocks, *nom. nud.*, Ann. Trop. Med. Parasit. III, 586 (1910).
- Myzomyia azriki*, Patton, Jour. Bomb. Nat. Hist. Soc. XVI, 632 (1905).
- M. hispaniola*, Theob., Monog. Culic. III, 49 (1903).

India, generally distributed (Ellichpore, Cashmere, Nagpur, Hoshangabad, Lahore, Ferozepore, Aurungabad), Andaman Is. [*Maj. Anderson*]. Dr. Gough states the species ranges continuously from Teneriffe through the north coast of Africa to India. *Types* of *turkhudi* and *nigrifasciatus* in British Museum.

Theobald's description of the ♂ was drawn up from Giles' type, which at that time was considered to be the ♂ of *culicifacies*, Giles, and was first described as such by both Giles and Theobald. *Vide* notes under *culicifacies*.

*vincenti* Laveran, Comp. Rend. LIII, 993 (1901).

Blanch., Moust., 175, ♀: Theob., Monog. Culic. V, 184:

Brun., Rec. Ind. Mus. I, 322; IV, 434.

Van-Linh (Haut Tonkin) [*t. Laveran*]. *Type*, location unknown to present author.

*maculatus* Theob., Monog. Culic. I, 171, ♂ ♀ (*maculata*), fig. 48, var chars. (1901).

James, Sci. Mem. Med. Off. Ind. No. 2, 47, fig. 25, wing and leg: Giles, Handbk, etc., 2nd ed., 301, ♂ ♀; pl. ix, 2, head, wing ♂, palpus ♀: James and List., Anoph. Mosq. Ind., 99: Roper, Bull. Ent. Res. V, 143: Chris., Ind. Jour. Med. Res. III, 471.

*Nyssorhynchus maculatus*, Theob., Monog. Culic. III, 96: Blanch.,

Moust., 207, ♂ ♀; fig. 180, wing: Leices., Culic. Malaya, 41, ♂ ♀: Brun., Rec. Ind. Mus. I, 318; IV, 429.

*Nyssorhynchus willmori*, Leicester, Culic. Malaya, 42, ♂ ♀ *nec willmori*, James.

*Nyssorhynchus pseudowillmori*, Theob., Monog. Culic. V, 65, ♀ (1910). Brun., Rec. Ind. Mus. IV, 430.

*Anopheles maculatus*, var *willmori*, Alcock, Jour. Lond. Sch. Trop. Med. III, No. 3 (1913).

Himalayas up to 6000 ft. from N.W. Frontier to Assam; Lahore, iii, iv [*Christophers*]; Jeypore; Jalpaiguri, 13-vii-09 [*Wallich*]; Kurseong, Nara Ghat, 25—26-ii-08 and Thaumaspur, 18—20-ii-08, ♂ ♀ (the two latter on the Bengal-Nepalese Frontier); Perak, Dindings, xi; Korinchi Lake (Sandarang Agong, Sumatra, 2450 ft.), v-14; Batak Highlands, Sumatra 4000 ft., iv-15; Hongkong, ix—x. *Types* originally stated to be in Dr. Ree's collection, but the *type* ♂ is now in the British Museum; the *type* ♀ is not in existence. *Type* of *pseudowillmori* in Ind. Mus.

Roper recently considers *willmori*, James in Theob. and *dudgeoni*, Theob., to be synonymous with *maculatus*, but Christophers states this view to be erroneous. This latter author (Ind. Jour. Med. Res. III, 471) clears up a difficulty set forth by Stanton (Jour. Lond. Sch. Trop. Med. II, No. 1, p. 7) making it obvious that *maculatus*, Theob., was actually described from both sexes of that species. He states that Theobald in his later descriptions mixed *maculata* with *karwari*.



**tessellatus** Theob., Monog. Culic. I, 175, ♀ (as *Anopheles punctulatus*, Don.), fig. 49, thorax, wing, hind leg; pl. xxxvii, 148, ♀, full ins. col. (1901).

Giles, Handb., etc., 2nd ed., 305, ♀; pl. ix, 7, wing ♀, dorsum of thorax, hind tarsus (*tesselatus*, lapsus): Edw., Bull. Ent. Res. IV, 221: Stanton, Ind. Jour. Med. Res. III, 255.

*Myzomyia tessellata*, Theob., Monog. Culic. III, 55 (*tessellatum*), IV, 42 (*tessellata*): Brun., Rec. Ind. Mus. I, 311; IV, 422.

*Anopheles punctulatus*, James and List., Anoph. Mosq. Ind., 84, pl. xi, wing, head, leg: Chris., Ind. Jour. Med. Res. III, 482.

*Myzomyia punctulata*, Leices., Culic. Malaya, 27, ♂ ♀: Brun., Rec. Ind. Mus. I, 309.

*Nyssorhynchus punctulatus*, Blanch., Moust., 208.

*Nyssomyzomyia punctulata*, James and List., Monog. Anoph. Mosq. Ind., 2nd ed., 104, pl. xiv, wing, head, leg.

*Anopheles deceptor*, Don., Zeits. for Hyg. u. Insek., XLI, 60.

*Myzomyia deceptor*, Theob., Monog. Culic. V, 29: Brun., Rec. Ind. Mus. IV, 418.

*Myzomyia thornioni*, Ludl., Can. Ent. XXXVI, 69, ♀ (1904): Blanch., Moust., 183: Brun., Rec. Ind. Mus. I, 311; IV, 422.

*Dactylomyia ceylonica*, Newstead and Carter, Ann. Trop. Med. Paras. IV, 377 (1910).

Trincomalee, Ceylon [*Green*]; Taiping, v, 22-xi-99; 21-xii-99 [*Wray*]; Sumatra [*t. Donitz*], Deli, iii-14; Lampongs, vi-14; [both Sumatra and *t. Stanton*]. Type of *tessellatus* in British Museum; of *thornioni*, in Army Med. Mus. Washington; of *ceylonica* in Liverpool Sch. of Trop. Med.

Theobald had given the name *tesselatus* to this species in the MS. of his Monograph, but just before publication he considered it identical with *punctulatus*, Don., and changed the name to that of Donitz's species, confirming this later (*l.c.*, II, 306), as specimens under his own MS. name had been sent out to correspondents. In Vol. III, 55, he says Donitz informed him the two species were distinct.

**minimus** Theob., Monog. Culic. I, 186, ♀, fig. 55, wing, thorax, cross-veins (1901).

Giles, Handbk., etc., 2nd ed., 321, ♀; pl. x, 7, wing ♀, thorax scales: Chris., Ind. Jour. Med. Res. III, 473.

*Pyretophorus minimus*, Giles, Jour. Trop. Med. VII, 365: Blanch., Moust., 188, ♀, fig. 169, wing, transverse veins: Brun., Rec. Ind. Mus. I, 313; IV, 423.

*Anopheles christophersi*, Theob., Proc. Roy. So. LXIX, No. 456, p. 378, ♀, pl. v, 3, wing (Mar. 1902): Theob., Monog. Culic. V, 24: James and List., Anoph. Mosq. Ind., 103, pl. vii, 1, larval figs.: col. pl. x, full ins. ♀: Giles, Handbk., etc., 2nd ed., 512: Edw., Bull. Ent. Res. IV, 222: Ludl., *loc. cit.*, VI, 155 (synonymy).

*Anopheles formosaensis* I, Tsuchiki, Arch. f. Schiff. IV, 9 (May, 1902).

*A. aconitus*, var. *cohaesa*, Don., Zeitz. f. Hyg. XLIII, 233 (1903):  
*Myzomyia funesta*, Ludl., Can. Ent. XXXVII, 135 (1905).

nec *funestus*, Giles.

*Myzomyia mangyana*, Banks, Phil. Jour. Sci. I, 991, ♀ (1906).

Brun., Rec. Ind. Mus. I, 309.

*Anopheles febrifer*, Banks, Phil. Jour. Sci. IX, Sect. D, 405 (1914);  
(prelim. descr. by Drs. Walker and Barber, *loc. cit.*, IX, Sect.  
B, 384 (1914).

var. *aconitus*, Don., Zeits. f. Hyg. XLI (1902).

Chris., Ind. Jour. Med. Res. III, 475.

*Myzomyia albirostris*, Theob., Monog. Culic. III, 24, ♂ ♀, fig.  
11 (p. 25), palpus and proboscis (1903).

Leices., Culic. Malaya, 23, ♂ ♀: Brun., Rec. Ind. Mus. I,  
305; IV, 418.

*Myzomyia christophersi*, var. *alboapicalis*, Theob., Monog. Culic.  
V, 25 (1910).

*A. brahmacharii*, Chris., Paludism, No. 5, p. 11 (1912).

*Id.*, Brahmachari, Ind. Med. Gaz. XLVI, 268 (1911).

*Myzomyia flavirostris*, Ludl., Bull. No. 4, Surg. Gen. Office (1913):  
Psy. XXI, 30 (1914).

Sylhet, Central India, Meenglass, Jalpaiguri, 13-vii-07 [*Wallich*];  
Calcutta [*Alcock*]; Burma, Assam, Kangra Valley, Kuala Lumpur,  
Pokfulam, Hongkong [*Rees*]; Pampanga and Phil. Is. (var. locs.),  
ii, and v to xi [*t. Ludlow*]. *Mangyana* comes from Rio Baco,  
Chicago, Mindoro (Phil. Is.), v [*McGregor*]. *Type* of *minimus*  
in Dr. Rees collection. *Types* of *christophersi* and *alboapicalis*  
in British Museum, of *brahmacharii* in Central Malaria Bureau,  
Kasauli, of *flavirostris* in Army Medical Museum, Washington,  
of *febrifer*, ♂ ♀, No. 18,015 in Bureau of Science, Entom. Coll.,  
Manila; of *mangyana* in Ent. Coll. No. 3290, Bureau of Science,  
Manila.

Christophers in a recent paper sinks this species as synonymous  
with var. *vanus*, Theob. of *sinensis*, Wied.

*stephensi* Liston, Ind. Med. Gaz. XXXVI, 441, no sex stated,  
apparently ♀ (1901).

James, Sci. Mem. Ind., No. 2, 45, fig. 23, wing, 24, larval  
chars.: Giles, Handbk., etc., 2nd ed., 331, ♀ (footnote):

James and List., Anoph. Mosq. Ind., 113, pl. vi, 2, larval  
figs.; pl. x, 6, wing scales; col. pl. xiii, full ins. ♀: Chris.,  
Ind. Jour. Med. Res. III, 481.

*Neocellia stephensi*, James, Monog. Anoph. Mosq. Ind., 2nd ed.,  
col. pl. xii, full ins. ♀.

*Nyssorhynchus stephensi*, Theob., Monog. Culic. III, 93, ♀; fig.  
54, var. wing marks, fig. 55, wing; figs., pp. 40, 47, larval  
hairs: Blanch., Moust., 210: Brun., Rec. Ind. Mus. I, 319;  
IV, 430.

*Anopheles metaboles*, Theob., Proc. Royal So. LXIX, 374, ♀; pl.  
v, 1, wing, ♀ (1902): Giles, Handbk., etc., 2nd ed., 512.

*Neocellia intermedia*, Rothwell, Entom., ♀ (1907).

Theob., Monog. Culic. IV, 115, ♀; V, 73, ♂ ♀, fig. 29, wing  
♂: Brun., Rec. Ind. Mus. IV, 432.

N.W. Frontier, Deesa, W Centr. India, i, viii, Mian Mir, Ferozepore, v to xi [*t. Adie*]; Nagpur, Ellichpore, Madras City, Karachi, common, Calcutta, 1-viii-07 [*Annandale*]; Lushai Hills, Assam, 9-vii-04 [*Macleod*]; Burma, Philippines [*t. Ludlow*]. *Types of metaboles and intermedia* in British Museum; location of that of *stephensi* unknown to present author.

Major Christophers notes that though Theobald (Monog. IV, 96) denies that *metaboles*, Theob., is synonymous with *stephensi*, List., yet his (Theobald's) *description* of *metaboles* is one of *stephensi*.

**funestus** Giles, Mem. Liv. Sch. Trop. Med., p. 50, pl. v (1900).

Giles, Handbk., etc., 162, pl. vii, 3, wing: Theob., Monog. Culic. I, 178, ♂ ♀; var. chars. figd., pl. iv, 13, full ins. ♀, col; IV, fig. 10, ♂ genitalia; V, 17: Newstead, Ann. Trop. Med. Paras. I, 9.

*Myzomyia funesta*, Theob., Monog. Culic. III, 34, pl. ii, wing ♀: *id.*, Gen. Ins., Fasc. 26, pl. i, 2, full ins. col. ♀: Brun., Rec. Ind. Mus. I, 306, IV, 419: Blanch., Moust., 180, ♂ ♀

var. **listoni** List.

*Anopheles listoni*, List., Ind. Med. Gaz. XXXVI, 441, ♀ (1901).  
nec *listoni*, Giles, ♀

*Myzomyia listoni*, Theob., Monog. Culic. III, 27, ♀, fig. 12, palpus ♂ and wing scale; fig. 13, wing; fig. 17 (p. 40), larval hairs: James, Monog. Anoph. Mosq. Ind., 2nd ed., pl. iv, full ins. col. ♀ (on plate as *Anoph. fluviatilis*): Brun., Rec. Ind. Mus. I, 308; IV, 420: James, Sci. Mem. Med. Off. Ind., No. 2, 31, fig. 9.

*Anopheles fluviatilis*, James, Sci. Mem. Med. Off. India, No. 2, p. 31, fig. 9 (1902): Theob., Proc. Roy. So. LXIX, 378, ♀; pl. v, 3, wing, ♀ (1902): James and List., Anoph. Mosq. Ind., 103, pl. vii, 1, larval figs.: col. pl. x, full ins. ♀

var. **leptomeres** Theob.

*Myzomyia leptomeres*, Theob., Monog. Culic. III, 38, ♀ (1903).

*Id.*, *loc. cit.*, IV, 124; V, 29: Brun., Rec. Ind. Mus. I, 307; IV, 419.

*Type* of *funestus* doubtful if in existence, of *leptomeres* in British Museum.

*A. funestus*, Giles, is an African species, of which the typical form has not been recorded from India though it is common in the Philippines, and references to it are given at the top of this list to aid identification. Theobald describes two African varieties, *umbrosa* and *subumbrosa*, of which the latter may be identical with the *leptomeres* variety. Giles is wrong in considering the var. *leptomeres* identical with *pictus*, Lw. The form *listoni* is generally distributed in India, N.W Frontier, Assam, Ceylon [*Green*]; Central India, Burma, Western India, Sylhet, 21-i-05; 2-ii-05; 2-v-05 [*Hall*]; Perak. Some con-

fusion has arisen here over the name *listoni* by the form being at first considered identical with Giles' "*listoni*," as described by Capt. Liston, who, however, was unknowingly describing a new species; and as the real *listoni* of Giles proves synonymous with *culicifacies*, Giles, the name *listoni* must stand good for Capt. Liston's variety. See my notes and synonymy, Rec. Ind. Mus. I, 305, 306, 308 and IV, 420; also Major Christophers, Ind. Jour. Med. Res. III, 181.

**maculipalpis** Giles, Handbk., etc., 2nd ed., 279, ♂ (1902).

James and List., Anoph. Mosq. Ind., 95, pl. iv, larval figs.; pl. x, 5, wing scales; col. pl. vii, full ins. ♀: Chris., Ind. Jour. Med. Res. III, 472.

*Nyssorhynchus maculipalpis*, Theob., Monog. Culic. III, 96, ♀; fig. 56, var. chars.; pl. ii, two ♀ wings; fig. (p. 98), larval hairs: Brun., Rec. Ind. Mus. I, 319; IV, 429; James, Monog. Anoph. Mosq., Ind., 2nd ed.; col. pl. ix, full ins. ♀

*Nyssorhynchus maculipalpis*, Giles, var. *indiensis*, Theob., Monog. Culic. III, 99 (1903): Brun., Rec. Ind. Mus. I, 319.

*Nyssorhynchus indiensis*, Theob., Monog. Culic. IV, 98: Brun., Rec. Ind. Mus. IV, 428.

*Anopheles indiensis*, James and List., Anoph. Mosq. Ind., 95, pl. ii, figs.

*Anopheles jamesii*, Theob., Monog. Culic. I, 134, ♀; pl. i, 2, ♀, full ins. col. (1901).

Giles, Handbk., etc., 2nd ed., 299, ♀: James, Sci. Mem. Med. Off. Ind., No. 2, 41; James and List., Anoph. Mosq. Ind., 93; col. pl. vi, full ins., ♀: Chris., Ind. Jour. Med. Res. III, 468; Stephens and Chris., Rep. Roy. So. Malaria, 1902.

*Nyssorhynchus jamesii*, Blanch., Moust., 206: Brun., Rec. Ind. Mus. I, 318; IV, 429; James, Monog. Anoph. Mosq. Ind., 2nd ed., col. pl. viii, full ins. ♀: Stephens and Chris., Rep. Roy. So. Malaria, 1902.

India [*Christophers*, Stephens]; N.W. Frontier, Indo-Gangetic Plain, Central Provinces, Lower Ranges Himalayas, Shahjahanpore, Ferozepore, Nagpur, Ellichpore, Bombay, Karwar, Decan, Goa, Shamnagar, Calcutta, Port Canning, Quilon, Travancore, Ceylon, Pangasinam, Phil. Is.; also occurs in Mashonaland and Mauritius. *Type of maculipalpis* in British Museum.

Theobald considered (Monog. IV, 98) his "*maculipalpis*, Giles, var. *indiensis*, Theob." (of Monog. III, 99) to be a distinct species from *maculipalpis*, Giles, typical form, but he ranked "*maculipalpis*, Giles of James and Liston" as synonymous with *indiensis*.

**aconitus** Don., Beit. Kennt., z. d. Anoph. 70, ♀ (1902).

Don., Zeits. f. Hygiene XLIII, 233: Theob. Monog. Culic. III, 30; fig. (p. 31), wing ♀

*Myzomyia aconita*, Brun., Rec. Ind. Mus. I, 305.

*Anopheles aconitus*, *id.*, *loc. cit.*, IV, 415 (*aconita*): Stanton, Ind. Jour. Med. Res. III, 252.

? *A. formosaensis*, Tsuzuki.<sup>1</sup>

Kajoe Tanam ; Willen Is. ; Soekaboemi, Java [*t. Donitz*] ; Deli. Sumatra, iii-14 ; Lampongs, Sumatra, vi-14 [*t. Stanton*]. *Type*, location unknown to present author.

*Vide* Brun., Rec. Ind. Mus. IV, 415 for note on presumed variety *formosaensis*, and suggested change of name to *cohaesa*. Stanton considers (*loc. cit.*) that *albirostris*, Theob., is synonymous with this species.

**jeyporiensis** James, Sci. Mem. Ind., No. 2, 32 ; fig. 11, wing ; fig. 12, larval chars. (1902).

James and List., Anoph. Mosq. Ind., 101, pl. vii, 2, larval figs. ; col. pl. ix, full ins. ♀ : Chris., Ind. Jour. Med. Res. III, 468.

*Pyretophorus jeyporiensis*, Theob., Monog. Culic. III, 66 ; pl. viii, wing scales : James, Anoph. Mosq. Ind., 2nd ed., col. pl. vi, full ins. ♀, fig. (p. 67), palpus ♂ : Brun., Rec. Ind. Mus. I, 313 (*jeyporensis*).

Jeypur State [*Christophers, Stephens*] ; Jakot, S. India [*Aitken*] ; Nagpur [*James*], Bombay, Central Provinces, India, Castle Rock, N. Kanara Distr. *Types* in British Museum.

**formosaensis** Tsuzuki, Archiv. f. Schiffs. v. Tropen Hygiene VI, 289 (1902).

Theob., Monog. Culic. V, 84 : Brun., Rec. Ind. Mus. I, 323 ; IV 415, notes.

Formosa. *Type*, location unknown to present author.

There are apparently two species of the same name by the same author from North and South Formosa respectively. *Vide* my notes (*loc. cit., supra*). Theobald (Monog. V) says that Donitz (*Zeits. f. Hygiene XLIII, 233*) says this species is only a variety of *aconita*, Don., and proposes, unnecessarily, to change the name to *cohaesa*.

**pulcherrimus** Theob., Proc. Roy. So. LXIX, 396, ♀, pl. v, 2, wings, ♀ (1902).

James, Sci. Mem. Ind., No. 2, p. 48 ; fig. 26, wing : James and List., Anoph. Mosq. Ind., 86, col. pl. iv, full ins. ♀ : Giles, Handbk., etc., 2nd ed., 510, ♀ : Chris., Ind. Jour. Med. Res. III, 476.

*Cellia pulcherrima*, Theob., Monog. Culic. III, 107 : Blanch., Moust., 215, ♀ : Brun., Rec. Ind. Mus. I, 321 ; IV, 432.

James, Monog. Anoph. Mosq. Ind., 2nd ed., col. pl. xiii, full ins., ♀

Mian Mir, near Lahore [*James*] ; Ferozepore, vii to xii [*Adie*] ; Goa [*James and List.*] ; Purneah, 7-viii-07 [*Paiva*] ; also occurs at Kokand, Turkestan [*Univ. Coll. Helsingfors*]. *Type* ♀ in British Museum, ♂ apparently still unknown.

**pseudobarbirostris** Ludl., Jour. N.Yk. Ent. So. X, 127, ♀ (*Myzorrhynchus*) (1902).

<sup>1</sup> *Vide A. formosaensis*, Tsuzuki, p. 105.

- Myzorhynchus pseudobarbirostris*, Theob., Monog. Culic. IV, 83, ♀: Brun., Rec. Ind. Mus. I, 315; IV, 426.  
Philippines, generally distributed, May to October. *Type* in Army Medical Museum, Washington.
- philippinensis** Ludl., Jour. N.Yk. Ent. So. X, 128 (1902); also Jour. Amer. Med. Assn. XXXIX, 426 (1902).  
*Nyssorhynchus philippinensis*, Theob., Monog. Culic. IV, 103, ♀: Brun., Rec. Ind. Mus. I, 319; IV, 430.  
Philippines, common, June to January. *Type* in Army Medical Museum, Washington.
- aitkenii** James in Theob., Monog. Culic. III, 22, ♀ (1903).  
James and List., Anoph. Mosq. Ind., 119; pl. ix, 3, wing scales; pl. xiii, larval figs. and wing: Blanch., Moust., 620: Brun., Rec. Ind. Mus. I, 303; IV, 415: Chris., Ind. Jour. Med. Res. III, 461.  
*Neostethopheles aitkenii*, James, Anoph. Mosq. Ind., 2nd. ed., 59; figs.
- Stethomyia fragilis*, Theob., Entom. XXXVI, 257, ♂ (1903): Brun., Rec. Ind. Mus. I, 312; IV, 423.
- Stethomyia pallida*, Ludl., Can. Ent. XXXVII, 129, ♀ (1905): Brun., Rec. Ind. Mus. I, 312; IV, 423.  
Goa Frontier [*Aitken*], Karwar [*Dr. Cogill*]; Meenglas, Jalpaiguri, 9-viii-07 [*Wallich*]; Bengal Duars, Nilgiri Hills, Bengal, Assam, Kuala Lumpur, i, xii [*Durham*]; Burma, Pampanga, ix-05 [*t. Ludl.*]. *Type* of *aitkenii* in British Museum.  
Major Christophers states that there is an individual labelled "type specimen" by James in the Central Malaria Bureau, Kasauli. He also considers *Stethomyia fragilis*, Theob., *S. pallida*, Ludl. and *Anopheles treacherii*, Leices., synonymous with *aitkeni*.
- immaculatus** James, Sci. Mem. Ind., No. 2, 35 (1902).  
Theob., Monog. Culic. III, 23, ♀ (1903): James and List., Anoph. Mosq. Ind., 120: Brun., Rec. Ind. Mus. I, 304; IV, 416: Chris. Ind. Jour. Med. Res. III, 468.  
Ennur, Madras Coast [*James and List.*]. *Type* in British Museum, unique.  
On the ground of the brief description of fine words only, "wings entirely unspotted, legs unbanded" being insufficient I attributed the species in my Catalogue to Theobald instead of James, but on Major Christophers' plea that such diagnosis differentiated it from all other known species, the original author's name is here restored, though such "descriptions" are to be deprecated.
- ludlowi** Theob., Monog. Culic. III, 42 (*Myzomyia*) (1903).  
Roper, Bull. Ent. Res. V, 145: Chris., Ind. Jour. Med. Res. III, 470.  
*Myzomyia ludlowi*, Banks, Phil. Jour. Sci. II, 519, life-history; pls. i to xi; pl. v, full ins. ♂ ♀: Brun., Rec. Ind. Mus. I, 309; IV 420.

- Nyssomyzomyia ludlowi*, James and List., Monog. Anoph. Mosq. Ind., 2nd ed., 101.  
Madras, Ceylon, Singapore [*Biro*]; Burma; Deli, Sumatra, iii-14, Andaman Is., Phil. Is., common, var. locs. [*t. Ludlow*].  
*Type* in British Museum.
- palestinensis** Theob., Monog. Culic. III, 71, ♂ ♀; fig. 46, head and thorax; 47, two wings, ♀; ♂ genitalia; pl. vi, wing scales, ♀ (*Pyretophorus*) (1903).  
Edw., Jour. Asiat. Soc. Beng. IX, 48 (1913): Waterston, Bull. Ent. Res. IX, 4.  
*Anopheles nursei*, Chris., Ind. Jour. Med. Res. III, 475.  
*Pyretophorus nursei*, Theob., Monog. Culic. IV, 66, ♀ (1907).  
Brun., Rec. Ind. Mus. IV, 424.  
*Pyretophorus cardamitis*, Newstead and Carter, Ann. Trop. Med. Paras. IV, 379 (1910).  
? *Anopheles superpictus*, Grassi, Reale Accad. Linc., 78 (1900).  
*Anopheles superpictus*, var. *macedoniensis*, Cot. and Hovasse, Bull. Soc. Path. Exot. X, 890, fig. (1917).  
Quetta, xi [*Nurse*]. Occurs in Palestine on Beyrouth River, vi [*Cropper*]; Cyprus, common up to 4000 ft. [*Miss D. M. A. Bate*]; Athens, Kashan, Persia, 8-xi-11, ♀ [*Cropper*]. *Type* of *nursei* in British Museum, location of that of *palestinensis* unknown to present author.
- umbrosus** Theob., Monog. Culic. III, 87, ♀; fig. 87, wing (*Myzorhynchus*) (1903).  
Roper, Bull. Ent. Res. V, 146.  
*Myzorhynchus umbrosus*, Leic., Culic. Malaya, 35, ♀ (*Myzorhynchus*): Brun., Rec. Ind. Mus. I, 316, IV, 427: Strickland, Bull. Ent. Res. IV, 140.  
Malay States, Pahang [*Dr. Durham*]; Kuala Lumpur, Deli, Sumatra, iii-14. *Type* in British Museum.
- albotaeniatus** Theob., Monog. Culic. III, 88, ♀; pl. i, wing; pl. v, wing scales (*Myzorhynchus*) (1903).  
Roper, Bull. Ent. Res. V, 147: Stanton, Ind. Jour. Med. Res. III, 252.  
*Myzorhynchus albotaeniatus*, Leices., Culic. Malaya, 34, ♀ (*Myzorhynchus*): Brun., Rec. Ind. Mus. I, 313; IV, 424: Strickland, Bull. Ent. Res. IV, 140.  
*Myzorhynchus alboannulatus*, James and List., Anoph. Mosq. Ind., 81 (1904).  
Perak [*Wright*]; Kuala Lumpur; Port Swettingham, Deli, Sumatra, iii-14. *Type* in British Museum.  
var. **montanus** Stanton and Hacker, Bull. Ent. Res. VII, 273, ♂ ♀ (1916-17).  
Ulu Gombak, Selangor, 600 ft.
- willmori** James in Theob., Monog. Culic. III, 100, ♀; fig. 59, palpus ♀, fig. 60, var. scales; (*Nyssorhynchus*) (1903).  
Chris., Ind. Jour. Med. Res. III, 484.

- Nyssorhynchus willmori*, Blanch., Moust., 624: Brun., Rec. Ind. Mus. I, 321; IV, 430  
nec *willmori*, Leices.
- Neocellia willmori*, var. *maculosa*, James and List., Anoph. Mosq. Ind., 2nd ed., 112 (1911).
- Neocellia indica*, Theob., Monog. Culic. IV, iii, ♂ ♀ (1907): Brun., Rec. Ind. Mus. IV, 432
- Neocellia dudgeoni*, Theob., Monog. Culic. IV, 112, ♀ (1907).  
Brun., Rec. Ind. Mus. IV, 432.  
Kashmir, 4800 ft. [*Willmore*]; Dehra Dun, ii, iii; Lahore, Jalpaiguri, 13-vii-07 [*Wallich*]; Kangra Valley, 4500 ft., vi, vii [*Dudgeon*]; Pundaluoya, Ceylon, vii [*Green*]; Kuala Lumpur, Jugra, Malay Peninsula [*t. Leicester*]; Ula Gombak. *Type* of *maculosa* in Central Malaria Bureau, Kasauli; of *willmori*, *indica* and *dudgeoni* in British Museum: Roper thinks (Bull. Ent. Res. V, 143) that this species is synonymous with *maculatus*, Theob.
- karwari** James in Theob., Monog. Culic. III, 102, ♀; fig. 61 (p. 103), wing; (*Nyssorhynchus*) (1903).
- Anopheles karwari*, James and List., Anoph. Mosq. Ind., 89; pl. xiv, var. chars.; fig., p. 90, wing: Chris., Ind. Jour. Med. Res. III, 469.
- Nyssorhynchus id.*, Leices., Culic. Malaya, 39, ♂ ♀ (*Nyssorhynchus*): Brun., Rec. Ind. Mus. I, 318; IV, 429.
- Anopheles nigrans*, Stanton, J. Lond. Sch. Trop. Med. II, No. 1, 7 (1912).  
Karwar, vi [*Cogill*]; Goa, 2000 ft., ii [*Aitken*]; Kuala Lumpur, 27-iv-02 [*Durham*]. *Types* of *karwari* and *nigrans* in British Museum: Christophers says that in Theobald's later descriptions of his *maculatus* he has confused *maculatus* and *karwari*.
- error** Theob., Monog. Culic. III, 353, ♀ (*Aldrichia*) (1903).  
Theob., Gen. Ins., Fasc. 26, 13.  
*Aldrichia error*, Brun., Rec. Ind. Mus. I, 322.  
*Aldrichinella error*, Theob., Monog. Culic. V, 77: Brun., Rec. Ind. Mus. IV, 433.  
"India, probably Calcutta." *Type* in British Museum, now broken: According to Col. Alcock this is not a good species, the unique type being a *Myzomyiarossii*, Giles, with the abdomen of some other species attached.
- culiciformis** Cogill., Jour. Bomb. Nat. Hist. So. XV, 333 (1903).  
*Anopheles culiciformis*, James and List., Anoph. Mosq. Ind., 122, ♂, ? ♀; pl. xv, larval figs: Chris., Ind. Jour. Med. Res. III, 463: Chris. and Chand, Ind. Jour. Med. Res. III, 638, ♂ ♀ all stages descr.; pl. lix (var. chars.) (*Coelodiazesis*).  
*Stethomyia culiciformis*, Theob., Monog. Culic. IV, 62: Brun., Rec. Ind. Mus. I, 312; IV, 423.



- Neostethopheles culiciformis*, James and List., Anoph. Mosq. Ind., 2nd ed., 61, figs.  
Karwar, Bombay Presidency [*Dr. Cogill*]. *Type*, location unknown to present author.
- pitchfordi** Giles, Jour. Trop. Med. VII, 365 (*Pyretophorus*) (1904).  
*Pyretophorus pitchfordi*, Brun., Rec. Ind. Mus. I, 313.  
Pampanga [*Whitmore*]. *Type* in British Museum.
- asiatica** Leic., Entom. XXXVII, 13, ♂ ♀ (*Lophoscelomyia*) (1904).  
Chris., Ind. Jour. Med. Res. III, 462.  
*Lophoscelomyia asiatica*, Theob., Monog. Culic. IV, 92, ♂ ♀:  
Brun., Rec. Ind. Mus. I, 317; IV, 427; Leices., Culic. Malaya, 21, ♂ ♀  
*Lophomyia asiatica*, Giles, Jour. Trop. Med. VII, 366.  
*Myzorhynchus asiaticus*, Strickland, Bull. Ent. Res. IV, 141.  
Kuala Lumpur. *Type* in British Museum.
- freerae** Banks, Phil. Jour. Sci. I, 993, ♀ (*Pyretophorus*) (1906).  
*Pyretophorus freerae*, Theob., Monog. Culic. V, 43; Brun., Rec. Ind. Mus. I, 312; IV, 423.  
Manila, x [*Banks*]. *Type*, apparently unique, No. 5975, in Entom. coll., Bureau of Science, Manila.
- nigrifasciatus** Theob., Monog. Culic. IV, 65, ♀ (*Pyretophorus*) (1907)  
*Pyretophorus nigrifasciatus*, Brun., Rec. Ind. Mus. IV, 424.  
Peshin, India, iv [*Maj. Nurse*]; also occurs in Cyprus. *Type* in British Museum.
- treacheri** Leices., Culic. Malaya, 19, ♂ ♀ (1908).  
Brun., Rec. Ind. Mus. IV, 417.  
Malay Peninsula, widely distributed. *Type* in Leicester's collection. Christophers ranks this as synonymous with *aitkenii*, James.
- separatus** Leices., Culic. Malaya, 36 (sex not stated, apparently ♀ ) (1908).  
Roper, Bull. Ent. Res. V, 145.  
*Myzorhynchus separatus*, Brun., Rec. Ind. Mus. IV, 426.  
Kuala Lumpur. *Type* in Leicester's collection.  
Possibly a variety of *sinensis*, Wied.
- watsoni** Leices., Culic. Malaya, 38, ♀ (*Pyretophorus*) (1908).  
*Pyretophorus watsoni*, Brun., Rec. Ind. Mus. IV, 424.  
Klang [*Dr. Watson*]. *Type*, a unique ♀, in Leicester's collection.
- formosus** Ludl., Can. Ent. XLI, 22, ♀ (1909).  
Theob., Monog. Culic. V, 8, ♀: Brun., Rec. Ind. Mus. IV, 416.  
Benguet, Phil. Is., iii-08. *Type* in Army Medical Mus., Washington.
- mcgregori** Banks, Phil. Jour. Sci. IV, 548, ♂ (*Kerteszia*) (1910).  
*Kerteszia mcgregori*, Brun., Rec. Ind. Mus. IV, 431.

- Basalin Is., Phil. Is., 28 xii-06 [*McGregor*]. Type in Entom. coll. (No. 6666), Bureau of Science, Manila.
- aurirostris** Watson, Ann. Trop. Med. Parasit. IV, 251, ♀; fig. wing (1910).  
Bred, Klang, xii-09.
- fowleri** Chris., Paludism II, 64 (*Neocellia*) (1911).  
*Neocellia fowleri*, *id.*, *loc. cit.*, III, pl. vi, var. chars.  
*Anopheles fuliginosus*, var. *fowleri*, Alcock, Jour. Lond. Sch. Trop. Med. II, No. 3 (1913).  
Amritsar; Cent. Prov. India, xi to ix; Punjab; South India.  
Christophers thinks more recently (Ind. Jour. Med. Res. III, 466) that this may be the *pallida*, Theob., variety of *fuliginosus*, Giles.
- wellingtonianus** Alcock, Jour. Lond. Sch. Trop. Med. II, 1, 2 text-figs. (*Myzorhynchus*) (1912).  
Larut Hills, 4000 ft., Malay Peninsula. Type in British Museum.
- brevipalpis** Roper, Bull. Ent. Res. V, 141, ♂ ♀, fig. 1, wing, proboscis ♀, front claw ♂ (1914).  
Strickland, Ind. Jour. Med. Res. III, 201, larva.  
Borneo. Types in British Museum. Strickland (*loc. cit.*) suggests *Memnemyia* as a new genus to receive this species on account of minor differences.
- schnuffneri**, Stanton, Bull. Ent. Res. V, 373 ♀; fig. 1, proboscis, palpus (1915).  
Lampongs Distr., South Sumatra, v, vi, 1914 [*Dr. Schuffner*].
- hunteri** Strickland, Ind. Jour. Med. Res. IV, 263, ♂ ♀ figs. var. chars. (*Myzorhynchus*) (1917).  
Tebong, Negri Sembilan, Malay Peninsula, vi-14; Bandar Penggaram, ix-15; Sungei Simpang, Kanan, Johore State [all *Strickland*]; Singapore [*Dr. Hunter*].
- novumbrosus** Strickland, Ind. Jour. Med. Res. VI, 271, ♂ ♀ (*Myzorhynchus*) (1917).  
Malay Peninsula.
- annandalei** Prashad, Rec. Ind. Mus. XV, 123, ♂, pl. xvii, wing, larva, var. chars; life-history also described (1918).  
Sureil, Darjiling District, 5000 ft., 28-x-17 [*Annandale* and *Gravelly*].
- pampangensis** nom. nov. (*philippinensis* Ludl. preocc.).  
*Pyretophorus philippinensis*, Ludl., Can. Ent. XXXVII, 135 (1905): Brun., Rec. Ind. Mus. I, 313.  
Pampanga [*Whitmore*]. Type in Army Med. Mus., Washington.  
This species of Miss Ludlow's has to be renamed as *Nysorhynchus philippinensis*, Ludl. is of course an *Anopheles* in the present author's view of the genus.

In an editorial note in the Ind. Jour. Med. Res. IV, 611, mention is made of a new species *A. (Myzorhynchus) similis*, Strickland, from the Malay States. The larva is "described" in three lines, the adult is "described" as being "indistinguishable from *umbrosus*."

### **Bironella**, Theob.

Ann. Mus. Hung. III, 69 (1905).

Theob., Monog. Culic. IV, 120, ♂, fig. ♂, wing (p. 122).

GENOTYPE, *B. gracilis* Theob., by original designation.

**gracilis** Theob., Ann. Mus. Hung. III, 69, ♂; fig. 3, scales; pl. ii, wing ♂; pl. iii, wing scales ♂ ("♀" lapsus).

Theob., Monog. Culic. IV, 121, ♂: fig. of wing, p. 122:

Brun., Rec. Ind. Mus. I, 322; IV, 433.

Muina, Papua, 31-xii-1900 [*Biro*]. *Type*, unique, in the Hungarian Museum. Howard, Dyar and Knab think this genus may be a transitional form between *Anopheles*, *Megarhinus* and *Uranotaenia* (Mosq. N. and Cent. Am. and W. Ind. 899).

### **Calvertina** Ludlow.

Can. Ent. XLI, 234, emend. from *Calvertia* Ludl., *loc. cit.*, 22 (1909).

*Calvertia* preocc. Warren in Lepidoptera.

GENOTYPE, *Chagasia lineata* Ludl., by original designation.

**lineata** Ludl., Can. Ent. XL, 50 (*Chagasia*) (1908).

*Calvertia lineata*, Ludl., Can. Ent. XLI, 22.

*Calvertina lineata*, *Id.*, *loc. cit.*, XLI, 234: Theob., Monog. Culic. V, 77: Brun., Rec. Ind. Mus. IV, 433.

Pangasinan, viii. *Type* in Army Med. Mus., Washington.

### Sect. CULICINI.

This "Section" comprises the whole of the subfamily Culicinae except the Anophelines, but is not herein assigned equivalent or any definite taxonomic value, being only adopted as a temporary convenience to separate them from the Anophelines.

### **Megarhinus**, R. Desv.

Mém. Soc. Hist. Nat. Paris III, 412 (1827).

Macq., Hist. Nat. Dipt: Skuse, Proc. Linn. Soc.

N.S. Wales III, 1720: Theob., Monog. Culic. I,

215; III, 113; IV, 128, tab. spp.: Blanch., Moust., 200, 221, tab. spp.: Theob., Gen. Ins., Fasc. 26, 12: Brun., Rec. Ind. Mus. I, 323; IV, 435; X, 65: How., Dyar and Knab, Mosq. N. Amer., etc., IV, 927.

*Megarhina*, Giles, Handbk., etc., 119; 2nd ed., 265: *Auctt.*

GENOTYPE, *Culex haemorrhoidalis* Fab., by original designation.

The genus *Megarhinus* is not Oriental, but the species belonging to *Toxorhynchites* were originally assigned to it, therefore a few references are given here.

### **Toxorhynchites**, Theob.

Monog. Culic. I, 244 (1901).

Theob., *loc. cit.*, III, 119, notes on life-history; V, 95, notes and tab. spp: *Id.*, Gen. Ins., Fasc. 26, 13: Blanch., Moust., 229: Leices., Culic. Malaya, 59: Brun., Rec. Ind. Mus. I, 324; IV, 435; X, 72: Giles, Handbk., etc., 2nd ed., 278. GENOTYPE, *T brevipalpis* Theob., by original designation.

*Teromyia* Leices., Culic. Malaya, 49 (1908).

GENOTYPE, *T acaudata*, Leic., sp. nov., *loc. cit.* by my designation, 1914.

Brun., Rec. Ind. Mus. IV, 438, notes.

*Worcesteria*, Banks, Phil. Jour. Sci. I, 779 (1906).

GENOTYPE, *W grata* Banks, sp. nov., *loc. cit.*

Theob., Monog. Culic. V, 110: Brun., Rec. Ind. Mus. I, 326; IV, 439; X, 73.

**splendens** Wied., Zool. Mag. III, 2, ♂ (*Culex*) (1819).

*Culex splendens*, Wied., Auss. Zweifl. I, 3, ♂: Macq., Hist. Nat. Dipt. I, 33.

*Megarhinus splendens*, Sch., Reise Novara, Dipt., 31: Wulp, Mid-Sumatra, Dipt. 8; pl. i, 2, wing: Theob., Monog. Culic. I, 235, pl. viii, 31, ♀, full ins. col: Giles, Handbk., etc., 124; 2nd ed., 271 (*Megarhina*): Blanch., Moust., 225: Brun., Rec. Ind. Mus. I, 324.

*Toxorhynchites splendens*, Brun., Rec. Ind. Mus. IV, 437.

Java, Sumatra, Singapore. *Types* in Wiedemann's and Westermann's collections. Not recorded in recent years, probably one or more of the more recently described species may be synonymous with it.

**amboinensis** Dol., Nat. Tijd. Ned. Ind. XIV, 381, ♂, pl. v, 5 (*Culex*) (1857).

*Megarhina amboinensis*, Giles, Handbk., etc., 133; 2nd ed., 276.

*Megarhinus amboinensis*, Theob., Monog. Culic. I, 243 ♂:

Blanch., Moust., 226, ♂ ♀ : Brun., Rec. Ind. Mus. I, 323, notes.

*Toxorhynchites amboinensis*, *id.*, *loc. cit.*, IV, 435.  
Amboina, Ceram. Type in Vienna Museum.

**subulifer** Dol., Nat. Tijd. Ned. Ind. XIV, 382, ♀, pl. v, 2 (*Culex*) (1857).

*Megarhinus subulifer*, Theob., Monog. Culic. I, 242: Giles, Handbk., etc., 125; 2nd ed., 272 (*Megarhina*).

*Toxorhynchites subulifer*, Theob., Monog. Culic. V, 101: Brun., Rec. Ind. Mus. IV, 437: Edw., Bull. Ent. Res. VII, 202.  
Amboina, Ceram. Type in Vienna Museum.

In my Catalogue this species was given as synonymous with *immisericors*, Walk., but, following other authors, the two were ranked as distinct in the Supplement. Edwards notes<sup>1</sup> that there is nothing in Doleschall's description of *subulifer* to prevent it being the same as *immisericors*, in which case the Dutch author's name takes precedence. He adds that Doleschall also described *amboinensis*, which he afterwards took to be the ♂ of his *subulifer*, and if that opinion should prove correct, the species is distinct from *immisericors*. This would be true but if *amboinensis* and *subulifer* are respectively ♂ and ♀ of a single species, the former name must be used because the description precedes that of *subulifer* by a page (pp. 381 and 382 respectively). Until the identity of all three alleged species is settled they may be regarded as provisionally distinct.

**immisericors** Walk., Proc. Linn. Soc. Lond. IV, 90, ♂ (*Megarhinus*) (1860).

*Megarhinus immisericors*, Theob., Monog. Culic. I, 225, ♂ ♀, pl. vii, 28, ♂, full ins. col.; pl. ix, 33, ♀ (as *M. gilesii*): Giles, Handbk., etc., 129; 2nd ed., 273 (*Megarhina*).

*Megarhinus gilesii*, Theob., Monog. Culic. I, 227, ♂ ♀; pl. ix, 33, ♀, full ins. col. (1901).

*Toxorhynchites immisericors*, Theob., Monog. Culic. III, 123, fig. 67, larva, pupa; IV, 141; V, 97, ♀: *id.*, Rec. Ind. Mus. IV, 4, ♀ redescr.: Blanch., Moust., 230, ♂: Brun., Rec. Ind. Mus. I, 324; IV, 436, notes: Green, Spol. Zeyl. II, 159, pl. life-history: Paiva, Rec. Ind. Mus. V, 187, larval habits: Edw., Bull. Ent. Res. IV, 222.

*Toxorhynchites gilesii*, Theob., Monog. Culic. V, 99.  
Brun., Rec. Ind. Mus. IV, 435.

*Toxorhynchites argenteotarsis*, Ludl., Can. Ent. XXXVIII, 367, ♀ (1906).

Theob., Monog. Culic. V, 100, ♀: Brun., Rec. Ind. Mus. IV, 435.

<sup>1</sup> Bull. Ent. Res. IV, 223 under *immisericors*.

*Megarhinus immisericors*, Walk., or *amboinensis*, Dol., Ost. Sack., Berl. Ent. Zeits. XXVI, 96.

*Worcesteria grata*. Banks, Phil. Jour. Sci. I, 780, ♂ ♀, pl. palpus ♂, genitalia ♂, cross-veins ♂ ♀, scales, etc. (1906): Theob., Monog. Culic. V, 111: Brun., Rec. Ind. Mus. I, 326.

*Culex regius*, Thwaites, Proc. Linn. Soc. Lond. VIII, 102 (1864).<sup>1</sup>

*Toxorhynchites regius*, Edw., Bull. Ent. Res. VII, 202.

? *Megarhinus subulifer*, Dol., Nat. Tijd. Ned. Ind. XIV, 382 (1857).

Common and widely distributed in the East. Bhim Tal, 19-22-x-06 [*Annandale*]; Sikkim, 1800 ft., vi [*Dudgeon*]; Sylhet, 5-v-05 and vi; Chittagong, 3-ix-08; Aijal, Lushai Hills, 3600 ft., 24-iv-04; Upper Burma [*Watson*]; Calcutta, i, vi, vii, viii [*Annandale*, etc.]; Peradeniya (Botan. gardens), 1500 ft., not uncommon; Pundaluoya, Ceylon, 4000 ft. [*Green* and *T. B. Fletcher*]; Trincomalee Hot Wells, Travancore, Mysore, Macassar; Andaman Is., Waigion; North Ceram; Mysol; Settleberg (Huon Gulf), Papua [*Biro*]; Bago, Negros Occidental, Cebu (Phil. Is.). Types of *immisericors* and *gilesii* in British Museum in bad condition; of *C. regius* in Hope coll., Oxford University; of *W. grata* in Entom. Coll., Bureau of Science, Manila, Nos. 6071, ♂ ♀

**inornatus** Walk., Proc. Linn. Soc. Lond. VIII, 102, ♂ (*Megarhinus*) (1865).

*Megarhinus inornatus*, Theob., Monog. Culic. I, 223, ♂ ♀, pl. vii, 26, ♂, 25, ♀ (both full ins. col.): Giles, Handbk, etc., 137, 2nd ed., 271, ♂ ♀ (*Megarhina innornata*, lapsus): Blanch., Moust., 223, ♂ ♀

*Toxorhynchites inornatus*, Brun., Rec. Ind. Mus. I, 325; IV, 436. Papua. Type ♂ ♀ in British Museum.

**leicesteri** Theob., Entom. XXXVII, 36, ♂ ♀ (1904).

Theob., Mong. Culic. IV, 142, ♂ ♀: Leices, Culic. Malaya, 59, ♂ ♀: Brun., Rec. Ind. Mus. I, 325; IV, 437.

Kuala Lumpur; Papua. Types in British Museum.

<sup>1</sup> I decline to accept Edwards' suggestion to adopt the name *regius* by Ternent (1859) in place of *immisericors*. A "description" of a line or two (in this case six words only) is no scientific description at all properly so called, even in the case of a species recognizable by it. Moreover, there is, as Edwards himself admits, a second though rare species of *Toxorhynchites* occurring in Ceylon and presumably the "description" of *regius* ("one with a formidable hooked proboscis") would equally apply to the other species, *minimus*, Theob., the character being generic. Ternent is not known, so far as I am aware, as an entomologist, the species was not scientifically described nor is "Ceylon" the journal in which it was published a scientific publication.

In the same paper (Bull. Ent. Res. VII, 202) Edwards notes having found on re-examining Walker's types of *immisericors*, from Celebes, that they are different from the species generally known from the East under this name, and he believes them probably identical with *subulifer*, Dol. I do not care, without a close examination of Doleschall's type if such be still in existence, to alter the present view of *immisericors* (that is, Theobald's), but if Edwards' latest opinion should prove correct, it leaves Theobald's form without a name.

- metallicus** Leices. in Theob., Entom. XXXVIII, 37, ♂ ♀ (1904).  
Leices., Culic. Malaya, 61, ♂ ♀: Theob., Monog. Culic. IV, 144, ♂ ♀: Brun., Rec. Ind. Mus. I, 325; IV, 437.  
Kuala Lumpur [*Leicester*]. *Types* in British Museum.
- lewaldii** Ludl., Can. Ent. XXXVI, 233, ♂ (*Megarhinus*) (1904).  
Theob., Monog. Culic. IV, 139, ♂; Brun., Rec. Ind. Mus. IV, 437.  
*Megarhinus lewaldii*, Brun., Rec. Ind. Mus. I, 324.  
*Megarhinus waldii*, Blanch., Moust., 625.  
Salog (Guimaras Is.), Philippine Is., iv [*Lewald*]. *Type* in Army Medical Museum, Washington.
- minimus** Theob., Jour. Bomb. Nat. Hist. Soc. XVI, 237, ♂, pl. A, fig. 1, palpus, wing, tip of abdomen (1905).  
Brun., Rec. Ind. Mus. I, 324; IV, 437.  
*Megarhinus minimus*, Theob., Monog. Culic. IV, 138, ♂: Brun., Rec. Ind. Mus. I, 324.  
Yatiantota, Ceylon. *Type* in British Museum.
- acaudata** Leices., Culic. Malaya, 49, ♂ ♀ (*Teromyia*) (1908).  
*Teromyia acaudata*, Brun., Rec. Ind. Mus. IV, 438.  
Singapore (*Finlayson*). *Types* in Leicester's collection.
- quasiferox** Leices., Culic. Malaya, 51, ♂ ♀ (*Teromyia*) (1908).  
Edw., Bull. Ent. Res. IV, 223.  
*Teromyia quasiferox*, Brun., Rec. Ind. Mus. IV, 439.  
*Toxorhynchites javaensis*, Theob., Tijd. v. Ent. LIV, 233 (1911).  
Brun., Rec. Ind. Mus. IV, 436.  
Java, Singapore, Malay Peninsula. *Type* of *quasiferox* in Leicester's collection; of *javaensis*, a unique ♀ from Java, in Amsterdam Museum.
- magnificus** Leices., Culic. Malaya, 54, ♂ ♀ (*Teromyia*) (1908).  
Edw., Bull. Ent. Res. IV, 223.  
*Teromyia magnificus*, Brun., Rec. Ind. Mus. IV, 438.  
*Teromyia funesta*, Leices., Culic. Malaya, 58, ♂ (1908).  
Malay Peninsula. *Type* of *magnificus* in Leicester's coll., of *funestus*, a unique ♂ bred from bamboo at Kuala Lumpur, in same collection.
- raris** Leices., Culic. Malaya, 56, ♂ (*Teromyia*) (1908).  
*Teromyia raris*, Brun., Rec. Ind. Mus. IV, 439.  
Ulu Klang, Fed. Malay States, a unique bad specimen, the *type* apparently lost, not in Leicester's collection.
- ater** Daniels, Studies from Institute for Medical Research, Fed. Malay Sts., III, 265, ♂ ♀ (*Teromyia*) (1908).  
*Teromyia ater*, Brun., Rec. Ind. Mus. IV, 438.  
Pahang, Malay Peninsula. *Type* apparently lost, not in Leicester coll.

**Mucidus**, Theob.

Monog. Culic. I, 268 (1901).

Theob., Gen. Ins., Fasc. 26, 17: *id.*, Monog. Culic. III, 132, larva; V, 125 tab. spp.: Giles,

Handbk., etc., 2nd ed., 346; Blanch. Moust., 243; Leices., Culic. Malaya, 69; Brun., Rec. Ind. Mus. IV, 440; X, 39, 66; Alcock, Ent. Med. Off., 104.

GENOTYPE, *Culex alternans* Westw., by personal designation.

**laniger** Wied., Dipt. Exot. 9, ♀ (*Culex*) (1821).

*Culex laniger*, Id., Auss. Zweifl. I, 5, ♀: Macq., Dipt. Exot. I, 2, 176; Giles, Handbk., etc., 211.

*Mucidus laniger*, Blanch., Moust., 244, ♀ (1905); Edw., Bull. Ent. Res. IV, 224.

*Mucidus mucidus*, Leices. (*nec* Karsch), Culic. Malaya, 69, ♂ ♀ (1908).

Java, Coromandel, Deli, Sumatra, iii-14. Type in Copenhagen Museum (*t.* Vienna Museum, *in litt.*); that of *mucidus*, Leicester, in Leicester's coll.

**alternans** Westw., Ann. Soc. Ent. Fran. IV, 681 (*Culex*) (1835).

Giles, Handbk., etc., 2nd ed., 347, ♂ ♀, pl. xii, 2, wing ♀

*Culex commovens*, Walk., Ins. Saund. Dipt. pt. 5, 432 (1896).

*Culex hispidosus*, Skuse, Trans. Linn. Soc. N.S. Wales, 1726 (1889).

Papua. Type in Copenhagen Museum.

**mucidus** Karsch, Ent. Nachr., 25 (*Culex*) (1887).

*nec* *Mucidus mucidus*, Leices.

*Culex mucidus*, Giles, Handbk., etc., 214.

*Mucidus mucidus*, Theob., Monog. Culic. I, 272, ♀, pl. xi, 42, full ins. col., pl. B, wing scales (1901); Giles, Handbk., 2nd ed., 549, ♀, pl. xii, 3, wing ♀: Brun., Rec. Ind. Mus. IV, 440; Edw., Bull. Ent., Res. II, 246.

Kuala Lumpur; Philippine Is. Type in Berlin Museum.

*africanus*, Theob., Monog. Culic. I, 274 (1901).

*grahami*, *id.*, *loc. cit.*, V, 127 (1910).

**scatophagoides** Theob., Monog. Culic. I, 277, ♀, pl. E, wing scales, fig. 81 (p. 278), wing, thorax, scales (1901).

Giles, Handbk., etc., 2nd ed., 348, ♀, pl. xii, 1a, full ins., 2a, venation: Blanch., Moust., 245, ♀: Brun., Rec. Ind. Mus. I, 327; Edw., Bull. Ent. Res. II, 246.

*sudanensis*, Theob., 3rd Rep. Wellc. Labor., 252 (1908).

Bauria, Bengal, 17-viii-07 [*Tyrie*]; Damukdia Ghat, Ganges Riv., 22-viii-07 [*Paiva*]; Purnea, 5-viii-07 [*Paiva*]; Moradabad, N.W. Pro. Ind., ix [*Close*]; Myingan, Burma. Type in British Museum.

### **Pardomyia**, Theob.

Monog. Culic. IV, 280 (1907).

Brun., Rec. Ind. Mus. IV, 460; X, 68.

GENOTYPE, *P. aurantia* Theob., sp. nov., by original designation.



*Ekrinomyia*, Leices., *Culic. Malaya*, 71 (1908).

GENOTYPE, *E. aureostriata* Leices, sp. nov., by original designation.

**aurantia** Theob., *Monog. Culic.* IV, 280, ♀ (1907).

Edw., *Bull. Ent. Res.* IV, 224.

*Ekrinomyia aureostriata*, Leices., *Culic. Malaya*, 71, ♂ ♀ (1908).

Brun., *Rec. Ind. Mus.* IV, 440.

Kuching, Sarawak, xi [*Barker*]; Kuala Lumpur, Klang.

*Type of aurantia* in *Brit. Mus.*, of *aureostriata* in Leicester coll.

**quadripunctis** Ludl. in Theob., *Monog. Culic.* V, 608 (1910).

Parang, Mindanao, Philippine Is., 26-x. *Type* in Army Medical Mus., Washington.

### **Armigeres**, Theob.

*Monog. Culic.* I, 322 (1901).

*Armigeres*, Giles, *Handbk.*, etc., 2nd ed., 384:

Edw., *Bull. Ent. Res.* IV, 224: VII, 202, diag. and tab. spp.: Brun., *Rec. Ind. Mus.* X, 55

*Desvoidya*, Blanch., *Comp. Rend.* LIII, 1035 (1901), *nom. nov.*, for *Armigeres*, Theob., under presumption of preoccupation by *Armiger*, Hartmann, 1840-1842, in *Mollusca*: Blanch, *Moust.*, 265: Theob., *Gen. Ins.*, Fasc. 26, 17: *id.*, *Monog. Culic.*, IV, 163, tab. spp., V 141, tab. spp.: Brun., *Rec. Ind. Mus.* I, 327: Leices., *Culic. Malaya*, 74.

*Desvoidia*, Theob., *Monog. Culic.* III, 134, larva.

*Blanchardiomyia*, Brun., *Rec. Ind. Mus.* IV, 440, *nom. nov.*, notes; X, 156

GENOTYPE of *Armigeres*, *Culex obturbans*, Walk., by original designation.

On the structure of the larva and of the male genitalia Edwards provisionally recognises this group as a valid genus, whilst admitting that the female adults cannot be distinguished from *Ochlerotatus*, *Stegomyia* and *Aedes*

The name *Armigeres* is not really preoccupied (*t. mihi*, *Rec. Ind. Mus.* X, 55), *Armiger* not being a homonym. Edwards also notes this fact, but in his latest paper he sinks the genus under *Stegomyia*.

**obturbans** Walk., *Proc. Linn. Soc. Lond.*, IV, 91, ♀ (*Culex*), (1860).

*Culex obturbans*, Giles, *Handbk.*, 338.

*Armigeres obturbans*, Theob., *Monog. Culic.* I, 323, ♂ ♀; fig. 104, wing, 105, palpus ♀ (incorrect), ungues ♀, ♂ genitalia; fig. 106, ♂, ungues: Edw., *Bull. Ent. Res.* VII, 205, fig. 2, ♂ genit.

*Desvoidia obturbans*, Theob., *Monog. Culic.* III, 138, fig. 75, middle claws ♂, fig. 77, corrected ♂ palpus, fig. 78, ♂ clasper: Theob., *loc. cit.*, IV, fig. 47, head of larva; fig. 48, siphon of larva.

*Desvoidya obturbans*, Blanch., Moust., 266, ♂ ♀ ; Leices, Culic. Malaya, 75, ♂ ♀ ; notes on varietal forms: Brun., Rec. Ind. Mus. I, 328.

*Blanchardiomyia obturbans*, Brun., *loc. cit.*, IV, 442 notes.

*Culex ventralis*, Walk., Proc. Linn. Soc. Lond., V, 144 (1861): Giles, Handbk., 339.

*nec ventralis*, Walk., Proc. Linn. Soc. Lond., VIII, 103.

*Armigeres ventralis*, Theob., Monog. Culic., pl. xv, 57, full ♀, ins. col.: Giles, Handbk., etc., 2nd ed., 385, ♂ ♀, pl. xiv, 11, venation, 12, claws.

Naini Tal (Giles); Kurseong, 5-viii-08 [Annandale]; Sukna, 1-viii-08 [Annandale]; Sylhet [Hall]; Lushai Hills; Behar [Green]; Mozufferpore; Rajmahal, 31-vii-07 [Hodgart]; Meerut, 25-iv-05 [Brunetti], Madras [Cornwall]; Trivandrum, 14-xi-08 [Annandale]; Travancore [James]; Madulsima, Ceylon, 26-ix-07 [Green]; Selangor, 28-x-99 [Butler]; Perak [Wray]; Singapore, 25-viii-99; Batavia, 27-vi to 9-vii-06 [Brunetti]; Semarang, i, ii, iii-04 and viii-05 [Jacobson]; Waria River, British Papua [Fleming Jones]; Amboina, Celebes, Mysol, Waigiou, North Ceram, Tinghai, Formosa, West Lake, Hankow, 28-viii-07 [Cornford]; Foochow [Rennie]. Type in British Museum, a ♀

*Uranotaenia malayi*, Theob., Monog. Culic. II, 258 (1901): Giles, Handbk., 2nd ed., 494, ♀: Blanch., Moust., 410.

*Armigeres malayi*, Edw., Bull. Ent. Res. VII, 207, fig. 3, ♂ genit.

*Desvoidea fusca*, Theob., Monog. Culic. III, 135 (1903), types only.

Selangor, 28-x-99; Kuala Lumpur. Type in British Museum.

*fusca* Theob., Monog. Culic. III, 135, ♂ ♀, fig. 75, middle claws ♂, palpus ♂, fig. 76, pupal chars., pl. xvii, larval figs. (*Desvoidea*), (1903).

*Desvoidea fusca*, Theob., Monog. Culic. IV, 165; V, 142: Brun., Rec. Ind. Mus. I, 327: Leices., Culic. Malaya, 78, ♂ ♀

*Blanchardiomyia fusca*, Brun., Rec. Ind. Mus. IV, 441, notes.

Sylhet, iii to vi [Hall]; Lushai Hills, Assam, viii [Macleod]; Calcutta, v, vii to xii; Jugra and Kuala Lumpur [both Durham]; Angeles, Phil. Is. [Whitmore]. Types in British Museum.

This is a species of uncertain validity. Edwards says that only the type ♂ and ♀ in the British Museum are synonymous with *malayi*, but as other specimens have been recorded from various and widely distributed localities, these latter may represent a valid species, which of course will require a new name.

*joloensis* Ludl., Can. Ent. XXXVI, 236 (*Desvoidea fusca*, var. *joloensis*), (1904).

*Desvoidea fusca*, var. *joloensis*, Theob., Monog. Culic. IV, 165: Brun., Rec. Ind. Mus. I, 327.

*Desvoidya joloensis*, Theob., Monog. Culic. V, 143.

- Armigeres joloensis*, Edw., Bull. Ent. Res. IV, 225 (1908).  
*Blanchardiomyia joloensis*, Brun., Rec. Ind., Mus. IV, 441.  
*Desvoidya jugraensis*, Leices., Culic. Malaya. 77, ♂ ♀ (1908).<sup>1</sup>  
*Blanchardiomyia jugraensis*, Brun., Rec. Ind. Mus. IV, 441.  
 Jolo, Philippine Is., Jugra, Ampang and E. Coast of Malay Peninsula; Borneo. Type of *joloensis* in Army Medical Museum, Washington, of *jugraensis*, in Leicester coll. Stanton records the *jugraensis* form from Delhi, Sumatra, iii, 14.
- aureolineatus** Leices., Culic. Malaya, 79, ♀ (*Desvoidya*), (1908).  
*Blanchardiomyia aureolineata*, Brun., Rec. Ind. Mus. IV, 441, notes.  
*Armigeres aureolineatus*, Edw., Bull. Ent. Res. VII, 205, fig. 1, ♂ genit.  
 Ampang, near Kuala Lumpur. Type in Leicester coll.
- apicalis** Theob., Rec. Ind. Mus. IV, 5, ♀ (*Desvoidea*), (1910).  
*Armigeres apicalis*, Edw., Bull. Ent. Res. IV, 225.  
*Blanchardiomyia apicalis*, Brun., Rec. Ind. Mus. IV, 441.  
*Stegomyia crassipes*, Theob. (nec Wulp), Monog. Culic., I, 320. ♀, pl. xxxiv, 134, ♀, full ins. col. (1901): Giles, Jour. Trop. Med. VII, 367: *id.*, Handbk., etc., 2nd ed., 381: Brun., Rec. Ind. Mus. I, 329; IV, 445.  
 Balighai, near Puri, Orissa, 24-x-08 [*Annandale*].  
 Type of *apicalis* in Indian Museum, of *crassipes* in British Museum. Erroneously identified as "*crassipes*, Wulp" it is recorded from Thayetmo, Upper Burma, viii [*Watson*] and from Pampanga, Philippine Is.
- moultoni** Edw., Bull. Ent. Res. V, 125, ♂ ♀ (1914-15).  
 Kuching, Sarawak, 19-ii-6-iii-1914 [*Moulton*]; Jugra, 15-ix-1904 [*Leicester*]. Types in British Museum.
- brevitibia**, *id.*, *loc. cit.*, 125, ♀ (1914-15); VII, 204, ♂  
 Tabuan Swamp, Kuching, Sarawak, 25-26-ii-1914 [*Moulton*].  
 Type in British Museum.
- hybridus**, *id.*, Bull. Ent. Res. V, 126, ♂ ♀ (1904-15).  
 Kuching, Sarawak, ♂ ♀ [*Moulton*]. Types in British Museum.
- conjungens**, *id.*, *loc. cit.*, 126, ♂ ♀ (1914-15).  
 Kuching, 25-ii-5-iii-1914 [*Moulton*]. Types in British Museum.
- confusus**, *id.*, *loc. cit.*, 283, ♂ ♀ (1914-15).  
 Kuching, Sarawak [*Moulton*, *Hewitt*, ? *Lewis*]. Types in British Museum.
- kuchingensis**, *id.*, *loc. cit.*, 283, ♂ ♀ (1914-15).  
 Kuching environs, Sarawak, 24 and 27-vii-14 [*Moulton*].  
 Type in British Museum.

<sup>1</sup> Edwards says (Bull. Ent. Res. V, 283) that *jugraensis* is not a synonym of *joloensis* as he at first supposed, adding "specimens of the latter represented a colour variation of *obturans*."

**breinli** Taylor, Tr. Ent. So., 186 (*Neosquamomyia*), (1914).  
Papua.

**durhami** Edw., Bull. Ent. Res. VII, 206, ♂ ♀ (1916—17).

Bukit Kutu, Fed. Malay States, 3300 ft., 11-v-93; type ♂ ♀ bred from larvae in tub near bungalow; 17-v-03 [*Leicester*], 20-ii-03 [*Durham*]. Types in British Museum.

**maiae**, *id.*, *loc. cit.*, 208, ♂ ♀ (1916—17).

Gombak Rd., Kuala Lumpur, 29-ii-04, 5 and 12-xii-03 [*Leicester*]; Pahang Rd., jungle, 6 miles from Kuala Lumpur, 15-v-04 (type ♂).

### **Banksinella**, Theob.

Monog. Culic. IV, 468 (1907).

Brun., Rec. Ind. Mus. IV, 477 (*Banksiella*, *lapsus*); X, 56: Theob., Monog. Culic. V, 402, tab. spp.

GENOTYPE, *Culex luteolateralis* Theob., by original designation.

**luteolateralis** Theob., Monog. Culic. II, 71, ♂ ♀, pl. xxvii, 108, ♀, full ins. col. (*Culex*), (1901).

*Banksinella luteolateralis*, Theob., Monog. Culic. IV, 469, ♀: Brun., Rec. Ind. Mus. IV, 477 (*Banksiella*, *lapsus*): Edw., Bull. Ent. Res. II, 245; III, 6.

*Culex luteolateralis*, Giles, Handbk., etc., 2nd ed., 448, ♂ ♀: Blanch., Moust., 278, ♂ ♀: Leices., Culic. Malaya, 160, ♂ ♀: Brun., Rec. Ind. Mus. I, 349

*Taeniorhynchus lineatopennis*, Ludl., Can. Ent. XXXVII, 133 (1905). Theob., Monog. Culic. IV, 489, ♀: Brun., Rec. Ind. Mus. IV, 479.

Sylhet, 23-xi-04, 5-x-14 [*Hall*]; Kuala Lumpur [*Leicester*]; Perak [*Wray*]; Pampanga, Philippine Is. [*Whitmore*]; Manila [*Banks*]; Luzon: Bayambang (Pangasinan, Philippine Is.), ix [*Chamberlain*]. Occurs also in Durban and Mashonaland.

Type of *luteolateralis* in British Museum; of *lineatopennis* in Army Medical Museum, Washington.

*B. chrysothorax*, Theob., was at first thought to be the ♂ of *luteolateralis*, but Edwards notes (Bull. Ent. Res. IV, 47) that it is the ♂ of *taeniarostris*, an African species.

### **Stegomyia**, Theob.

Howard's "Mosquitoes, etc." 233 (Jan. 1, 1901). Theob., Monog. Culic. I, 285, tab. spp.; 284, map of distribution; IV, 170, 171, list and tab. spp.; V, 151, tab. spp.: *id.*, Gen. Ins., Fasc. 26, 18: Giles, Handbk., etc., 2nd ed., 368; 369, tab. spp.: Blanch., Moust., 247, fig. 194, larva; 248, tab. spp.: Brun., Rec. Ind. Mus. I,

328; IV, 443: Leices., Culic. Malaya, 81, tab. Malay spp.: Alcock, Ent. Med. Off., 100: Edw., Bull. Ent. Res. VII, 203.

GENOTYPE, *Culex fasciatus* F., as *calopus*, Mg.

*Scutomyia*, Theob., Entom. XXXVII, 77 (1904).

Theob., Monog. Culic. IV, 196; V, 199, tab. spp.: *id.*, Gen. Ins., Fasc. 26, 19: Leices., Culic. Malaya, 105: Brun., Rec. Ind. Mus. I, 336; IV, 452; X, 71.

GENOTYPE, *Culex sugens* Wied., by my own designation.

*Quasistegomyia*, Theob., 2nd Rep. Gord. Coll. Wellcome Laborat. 69 (1916).

Theob., Monog. Culic. IV, 165; V, 132, tab. spp.: Brun., Rec. Ind. Mus. IV, 443; X, 70.

GENOTYPE, *Q. unilineata* Theob., sp. nov., by original designation.

*Gymnometopa*, Coq., Proc. Ent. Soc. Wash. VII, 183 (1906).

GENOTYPE, *Stegomyia mediovittata* Coq., by original designation.

*Kingia*, Theob., Monog. Culic. V, 135 (1910).

Brun., Rec. Ind. Mus. X, 63.

GENOTYPE, *Stegomyia luteocephala* Newstead, by original designation.

*fasciata* F., Syst. Antl., 36 (*Culex*), (1805).

*Culex fasciatus*, Auctt. var.

*Stegomyia fasciata*, Theob., Monog. Culic. I, 289, ♂ ♀; figs. 86—89 var. chars.; map of distribution, p. 292; pl. xiii, 49, ♂, 50, ♀ both full ins. col.; pl. B, wing scales: Theob., Gen. Ins., Fasc. 26, pl. i, ii, ♀, full ins. col.: Giles, Handbk., etc., 2nd ed., 372; pl. xiv, 2, venation, 3, thorax: Leices., Culic. Malaya, 85, ♂ ♀: Brun., Rec. Ind. Mus. I, 330 and IV, 446, copious notes.

*Culex calopus*, Meig., Syst. Besch. I, 3 (1818): R. Desv., Ess. Culic. 407 (1827): Giles, Handbk., etc., 237.

*Stegomyia calopus*, Blanch., Moust., 249, ♂ ♀; fig. 196, ♂, 195, ♀, 197—201, var. chars.: Ludl., Mosq. Phil. Is. 33.

*Aedes calopus*, Howard, Dyar and Knab, Mosq. N. Amer. IV, 824.

*Culex taeniatus*, Wied., Auss. Zweifl. I, 10, ♂ ♀ (1828).

*C. konoupi*, Brullé, Exped. Morea. Zool. III, 289, pl. xlvi, 1 (1832).

*C. mosquito*, R. Desv., Ess. Culic. 407 (1827): Arrib., Revist. La Plata, 60 (1891).

*C. viridifrons*, Walk., List Dipt. Brit. Mus. I, 3, ♀ (1848).

*C. formosus*, *id.*, *loc. cit.*, I, 4, ♀ (1848).

*C. inexorabilis*, *id.*, *loc. cit.*, I, 4, ♀ (1848).

*C. excitans*, *id.*, *loc. cit.*, I, 4, ♀ (1848).

*C. exagitans*, *id.*, Ins. Saund. Dipt. pt. 5., 430, ♀ (1856).

*C. impatabilis*, *id.*, Proc. Linn. Soc. Lond. IV, 91, ♂ (1860). Giles, Handbk., etc., 255.

*C. toxorhynchus*, Macq., Dipt. Exot. I, 25 (1838).

*C. annulitarsis*, *id.*, *loc. cit.*, Supp. I, 136, ♀ (1838).

*C. bancroftii*, Skuse, Proc. Linn. Soc. N.S. Wales III, 1740 (1886).

*C. elegans*, Ficalbi, Bull. Soc. Ent. Ital., 251 (1896).

*C. rossii*, Giles, Jour. Trop. Med. 64 (1899).

*C. luciensis*, Theob., Monog. Culic. I, 297, ♂ ♀ ; pl. xiii, 50 (only the separate figure of a leg), (1901).

*C. queenslandensis*, *id.*, *loc. cit.*, I, 297, ♀ (1901).

Subspecies **persistans** Banks, Phil. Jour. Sci. I, 996 (1906), Brun. Rec. Ind. Mus. I, 331.

The references to this species as *Stegomyia fasciata* are so numerous and so well known that it is unnecessary to list them all here.<sup>1</sup> The absolute identity of *fasciata* with *calopus*, Mg., is not proved, and as the description of Villiers' *Culex fasciatus* is quite unintelligible and the type non-existent no possible gain is obtained by endeavouring to alter this mosquito's well-known name. The Kertesz Catalogue does not mention Villiers' species, which, moreover, may not even have been a *Culex* at all. Messrs. Howard, Dyar and Knab in their monumental work on the North American Mosquitoes actually seriously propose to change the name to *argenteus*, Poiret, Jour. de Physique xxx, 245 (1787). *S. fasciata* is the sole carrier of yellow fever.

**variegata** Dol., Nat. Tijd. Ned. Ind. XVII, 77 (*Culex*), (1858).

*Stegomyia variegata*, Edw., Bull. Ent. Res. VII, 209.

*Culex scutellaris*, Walk., Proc. Linn. Soc. Lond. III, 77 (1859).

*Culex zonatipes*, Walk., Proc. Linn. Soc. Lond. V, 229 (1861).

Giles, Handbk., etc., 287.

*Stegomyia pseudoscutellaris*, Theob., Entom. XLIII, 156 (1910).

Amboina, Aru, Papua, New Caledonia, Christmas Is., the Solomon Is., Samarai Is. and the Fiji Is.

In Edwards' latest opinion the true *Culex scutellaris* of Walker is not the common oriental species generally known as such, but is identical with the *zonatipes* of Walker, and the *pseudoscutellaris* of Theob. It has not, however, been possible for him to examine Doleschall's type of *C. variegatus*, and the identity must be received with some caution. I have already accepted his previous synonymy of the generally accepted "*scutellaris*, Walk." with *albopicta*, Skuse. Type of *variegata*, location unknown; of *scutellaris*, Walk., *zonatipes*, Walk., and *pseudoscutellaris*, Theob., in British Museum.

**albopicta** Skuse, Ind. Mus. Notes III, 20 (*Culex*), (1895).

*Culex albopictus*, Giles, Handbk., etc., 228.

*Stegomyia albopicta*, Edw., Bull. Ent. Res. VII, 209.

*Stegomyia albopicta*, Theob., Monog. Culic. I, 298: Brun., Rec. Ind. Mus. I, 334.

nec *Stegomyia scutellaris*, Walk., vera.

*Stegomyia scutellaris*, Theob. nec Walk., Monog. Culic. I, 298, ♂ ♀, fig. 91, ♂ claws; pl. xiv, 53, ♀ (full ins. col.), (1901).

<sup>1</sup> Howard, Dyar and Knab give nearly 150 references.

*Id., id.*, Giles, Handbk., etc., 2nd ed., 374, ♀, pl. xiv, 4, venation, 5, head, thorax, ♂: Blanch., Moust. 257, ♂: Leices., Culic. Malaya, 86, ♂ ♀: Brun., Rec. Ind. Mus. I, 333; IV, 448, notes.

*Culex scutellaris*, Giles, Handbk., etc., 224.

*Culex notoscriptus*, Skuse, Proc. Linn. Soc. N.S. Wales, III, 1738 (1889).

*Stegomyia notoscripta*, Theob., Monog. Culic. I, 286, ♂ ♀; fig. 84, wing ♀; 85, wing scales; III, 145: Blanch., Moust., 257, ♂ ♀; Brun., Rec. Ind. Mus. I, 336; IV, 452.

*Scutomyia notoscripta*, Theob., Monog. Culic. IV, 198; V, 200: Giles, Handbk., etc., 225.

? *Culex variegatus*, Giles, Handbk., etc., 282.

Subspecies *samarensis* Ludl., Jour. N. Yk. Ent. Soc. XI, 138 (1903).

Ludl., Can. Ent. XXXVI, 71: Banks, Phil. Jour. Sci. I, 985: Theob., Monog. Culic. IV, 179: Brun., Rec. Ind. Mus. I, 333; IV, 449: Ludl., Psyche XVIII, 126 (specific rank claimed).

*Scutomyia notoscripta*, Skuse, subspecies *samarensis*, Theob., Monog. Culic. V, 200: Brun., Rec. Ind. Mus. I, 336; IV, 452.<sup>1</sup>

*Culex crassipes* Wulp, Mid-Sum. Dipt., 9, pl. i, 4, head (*Culex*), (1892).

nec *S. crassipes*, Theob., *et auctt.*

A very common species throughout the East, almost universally known as *scutellaris*, Walk.<sup>2</sup>, occurring in India throughout the year except perhaps December to February. Sylhet, Lushai Hills, Manipur, Colombo, Straits (commonly distributed), Celebes, Aru, Amboina, Ceram, Papua, Borneo, Sumatra, Java, Assam, Siam (abundant), China, Japan and the Philippines. It also occurs in Krakatua, Mauritius, Fiji, the Seychelles, Christmas Is., Pitcairn Is., Honolulu.

*Crassipes*, Wulp, was described from Soeroelangoen, Sumatra.

*Type* of *samarensis* in the Army Medical Museum, Washington.

**microptera** Giles, Jour. Bomb. Nat. Hist. Soc. XIII, 609 (*Culex micropterus*, provis. descr.): Giles in Theob. Monog. Culic. II, 281, ♂ ♀ (*Wyeomyia*? *micropterus*), (1901).

*Stegomyia microptera*, Giles, Handbk., etc., 2nd ed., 380, ♂ ♀, pl. xiv, 24, head, thorax, 25, head, 26, venation: Theob., Monog. Culic. III, 147, note: Blanch, Moust., 263: Brun., Rec. Ind. Mus. I, 332; IV, 447, notes.

Allahabad, Lucknow, Jhansi. *Type* "appears to be lost." (Theob.. Monog. V, 607 App.).

**albolineata** (I), Giles, Jour. Bomb. Nat. Hist. Soc. XIII, 609 provis. descr. (*Culex*), (1901).

<sup>1</sup> For fuller date, *v.* Brun., Rec. Ind. Mus. I, 333; IV, 449.

<sup>2</sup> Entered by error, twice in my Cat. Supp. 449 and 452.

- Brun., Rec. Ind. Mus. I, 336.  
 Shahjahanpur, N.W India, 20-x-1900. *Type*, a unique ♀
- sexlineata** Theob., Monog. Culic. I, 308, ♀, fig. 94, var. chars. (1901):  
 Giles, Jour. Trop. Med. VII, 367: *id.*, Handbk., etc., 2nd ed., 377: Brun., Rec. Ind. Mus. I, 334; IV, 449.  
 Angeles, Pampanga. *Type* in British Museum.  
 Described originally from a unique perfect ♀ taken at Agua Santa in Trinidad. The identity of the species seems established. Theobald (Monog. V, 219) has doubted it.
- periskelata** Giles, Handbk., etc., 2nd ed., 371, ♂, pl. xiv, 22, head ♂ (1902).  
 Theob., Monog. Culic. III, 145, ♂: Blanch., Moust., 264: Brun., Rec. Ind. Mus. I, 322; IV, 448, notes.  
 Shahjahanpur (N.W India). *Type* probably lost, not in the British Museum. Apparently an uncertain species.
- punctolateralis** Theob., Entom. XXXVI, 156, ♂ ♀, (1903).  
 Giles, Jour. Trop. Med. VII, 367.  
 Pampanga [*Whitmore*]. Also occurs in Queensland, i [*Dr. Bancroft*]. *Type* in British Museum.
- amesii** Ludl., Jour. N. Yk. Ent. Soc. XI, 139 (*S. nivea, amesii*), (1903).  
 Theob., Monog. Culic. IV, 191 (copies Ludl.'s descr.): Brun., Rec. Ind. Mus. I, 329.  
*Skusea amesii*, Edw., Bull. Ent. Res. VII, 213.  
*Stegomyia fusca*, Leices., Culic. Malaya, 92, ♂ ♀ (1908).  
*Id., id.*, Brun., Rec. Ind. Mus. IV, 447.  
 Oras, Samar, Tacloban, Leyte, Twin Peaks, Banquet, Luzon (all Philippine Is.). Port Swettenham.  
*Type* of *amesii* in Army Medical Museum, Washington; of *fusca* in Leicester collection. Edwards would remove this species to his subgenus *Skusea* of *Aedes*.
- albolineata** (II). Theob., Entom. XXXVII, 77, ♀ (1904).  
 Theob., Monog. Culic. IV, 197, ♀: Leices., Culic. Malaya, 105, ♂ ♀: Brun., Rec. Ind. Mus. I, 336; IV, 452.  
 Kuala Lumpur, vi [*Leicester*]. *Type* in British Museum.
- desmotes** Giles, Jour. Trop. Med. VII, 367, ♀ (1904).  
 Brun., Rec. Ind. Mus. IV, 445: Edwards, Bull. Ent. Res. IV, 225.  
*Stegomyia gracilis*, Leices., Culic. Malaya, 81, ♂ ♀ (1908): Brun., Rec. Ind. Mus. IV, 447.  
*Stegomyia albipes*, Theob., Rec. Ind. Mus. IV, 11, ♀ (1910): *id.*, Monog. Culic. V, 169 ♀  
 Typical form from the Philippines, *gracilis* from the Malay Peninsula, *albipes* from Maddathorai, Travancore, 17-xi-08 [*Annandale*]. *Type* (*desmotes*) in British Museum, damaged; of *gracilis* in Leicester collection, of *albipes*, a unique specimen, in Indian Museum.



- leucomeres** Giles, Jour. Trop. Med. VII, 367, ♀ (1904).  
 Brun., Rec. Ind. Mus. IV, 447.  
 Philippines. *Type* in British Museum.
- striocrura** Giles, Jour. Trop. Med. VII, 367 (1904).  
 Brun., Rec. Ind. Mus. 449.  
 Angeles, Pampanga. *Type*, location uncertain, not in British Museum. A doubtful species.
- trilineata** Leices. in Theob., Entom. XXXVII, 163, ♂ ♀ (*Hulecoetomyia*), (1904).  
*Stegomyia trilineata*, Edwards, Bull. Ent. Res. IV, 226.  
*Hulecoetomyia trilineata*, Theob., Monog. Culic. IV, 220, ♂ ♀ (1907). Leices., Culic. Malaya, 107, ♂ ♀: Brun., Rec. Ind. Mus. IV, 455.  
*Howardina chrysolineata*, Theob., Monog. Culic. IV, 218, ♀; pl. i, wing scales, ♀ (1907).  
 Kurseong, 3-vii-08 [*Annandale*]; Kuala Lumpur, iv, v, vii, x, xii; Peradeniya [*Green*]; Bukit Kutu, v; Ulu Gombok [both Malaysia, and *t. Leicester*].  
*Types* of *trilineata* and *chrysolineata* in British Museum.
- thomsoni** Theob., Monog. Culic. IV, 174 (1907).<sup>1</sup>  
*Id.*, Gen. Ins., Fasc. 26, 18 (1905): Edw., Bull. Ent. Res. VII, 210, fig. 5*d*, ♂ genit.  
 N.W. India; bred at Pusa [*Howlett*]. *Type* in British Museum.
- w-alba** Theob., Ann. Mus. Hung. III, 74, ♀, fig. 4, head, thorax, femur (1905).  
*Id.*, Monog. Culic. IV, 180, ♀, fig. 51, head, thorax, femur: Brun., Rec. Ind. Mus. I, 335: Edwards, Bull. Ent. Res. IV, 225.  
 Matheran, Bombay Presidency, 800 metres [*Biro*].  
*S. imitator*, Leices., Culic. Malaya, 89, ♀ (1908): Brun., Rec. Ind. Mus. IV, 447.  
*S. minutissima*, Theob., Rec. Ind. Mus. IV, 9, ♀; V, 168, ♀; fig. 61, wing (1910): Brun., Rec. Ind. Mus. IV, 448.  
 Matheran, Bombay Presidency, 800 metres [*Biro*] (*w-alba*); Kuala Lumpur [*t. Leices., imitator*]; Sukna, 1-vii-08 [*t. Theob., minutissima*].  
*Type* (*w-alba*) in Hungarian Museum, a unique specimen; of *imitator* in Leicester collection; of *minutissima* in Indian Museum.
- annulirostris** Theob., Jour. Bomb Nat. Hist. Soc. XVI, 239, ♀ (1905).  
*Id.*, Monog. Culic. IV, 173.  
 Peradeniya, i, 1902.  
*Type* in British Museum, a unique specimen.

<sup>1</sup> The Genera Insectorum "description" cannot be considered as such, being confined to five lines.

- mediopunctata** Theob., Jour. Bomb. Nat. Hist. Soc. XVI, 240, ♀ (1905).  
Theob., Monog. Culic. IV, 187, ♀.  
Peradeniya, xi [Green]. *Type*, a unique specimen, in British Museum.
- gardneri** Ludl., Can. Ent. XXXVII, 99, ♂ ♀ (1905).  
*Quasistegomyia gardneri*, Brun., Rec. Ind. Mus. IV, 443.  
*Pseudostegomyia gardneri*, Ludl., Mosq. Phil. Is., 10 (*lapsus* for *Quasistegomyia*).  
Bulaco, viii [Gardner]; Pampanga [Whitmore].  
*Type* in Army Medical Museum, Washington.
- aurostriata** Banks, Phil. Jour. Sci. I, 995, ♀ (1906).  
Theob., Monog. Culic. V, 181: Brun., Rec. Ind. Mus. IV, 445.  
Mt. Siya Siya, Canlaon Volcano, Negros Is., 760 metres, 24-vi-06.  
*Type* in Entom. Coll., No. 6082, Bureau of Science, Manila.
- argenteomaculata** Theob., Monog. Culic. IV, 184, ♀ (1907).  
Brun., Rec. Ind. Mus. IV, 444.  
Narcondam Island (Bay of Bengal), 80 miles from Andamans and Nicobars [Rogers].  
*Type* in British Museum.
- tripunctata** Theob., Rec. Ind. Mus. II, 288, ♀ (1901).  
*Id.*, *loc. cit.*, IV, pl. i, wing; pl. iii, wing scales; V, 182, fig. 68, wing: Brun., Rec. Ind. Mus. IV, 450.  
Lushai Hills, Assam, 6-vi-04 [Macleod].  
*Type* in Indian Museum.
- albolateralis** Theob., Rec. Ind. Mus. II, 289, ♀ (1908).  
*Id.*, *loc. cit.*, IV, pl. i, wing; pl. iii, wing scales: *id.*, Monog. Culic. V, 179, fig. 67, wing: Brun., Rec. Ind. Mus. IV, 444.  
Sylhet, ix [Hall]; Lungleh, Lushai Hills, vii.  
*Type* in Indian Museum.
- assamensis** Theob., Rec. Ind. Mus. II, 290, ♀ (1908).  
*Id.*, Monog. Culic. V, 174, ♀: Brun., Rec. Ind. Mus. IV, 445.  
Sylhet, 13-iv-05 [Hall]; Pallode, Travancore, 15-xi-08 [Annandale]. *Type* in Indian Museum.
- perplexa** Leices., Culic. Malaya, 83, ♂ ♀ (*Culex*), (1908).  
Brun., Rec. Ind. Mus. IV, 448.  
Kuala Lumpur, v, x, xi. Leicester says possibly a hybrid.  
*Type* in Leicester collection.
- dissimilis** Leices., Culic. Malaya, 91, ♂ ♀ (1908).  
Brun., Rec. Ind. Mus. IV, 445.  
Ampang (Straits). *Type* in Leicester collection.
- annandalei** Theob., Rec. Ind. Mus. IV, 10 (1910).  
Brun., Rec. Ind. Mus. IV, 444.  
*Kingia annandalei*, Theob., Monog. Culic. V, 139: Brun., Rec. Ind. Mus. IV, 443.  
Sukna, vii-08 [Annandale]. *Type*, unique, in Ind. Mus.

**nigritia** Ludl., Can. Ent. XLII, 194 (1910).

Philippines. *Type* in Army Medical Museum, Washington.

**gregoryi** Ludl., Psyche XVIII, 128, ♀ (1911).

Parang, Mindanao, i.

*Type*, presumably in Army Medical Museum, Washington.

**quasinigritia** Ludl., Psyche XVIII, 129 (1911).

Turucan, Mindanao, Philippine Is, xi. *Type*, unique, presumably in Army Medical Museum, Washington.

### **Howardina**, Theob.

Monog. Culic. III, 287, pl. xv, wing scales (1903).

Theob., *loc. cit.*, IV, 214; V, 200, tab. spp.:

Gen. Ins., Fasc. 26, 21: Blanch., Moust., 415:

Brun., Rec. Ind. Mus. I, 338 IV, 456; X, 62.

GENOTYPE, *Culex walkeri*, Theob., by Dyar's designation (Proc. Ent. So. Wash. VII, 49).

**greenii** Theob., Monog. Culic. III, 289, ♀; fig. 160 (p. 289), head, fig. 161, wing (1903).

Blanch., Moust., 416

Peradeniya, ii [Green]. *Type*, unique, in British Museum.

Of the three recorded oriental species, Edwards sinks *H. chrysolineata* as synonymous with *Stegomyia 3-lineata*, and *H. himalayana* as synonymous with *Ochlerotatus pulchriventer*, leaving only *H. greenii* unaccounted for. This species is, therefore, retained here under *Howardina* until disposed of.

### **Grabhamia**, Theob.

Monog., Culic. III, 243 (1903).

Theob., *loc. cit.*, IV, 284, list. spp.: *id.*, Gen.

Ins., Fasc. 26, 23: Blanch., Moust., 396: Brun.,

Rec. Ind. Mus. I, 341; IV, 461; X, 60.

GENOTYPE, *Culex jamaciensis* Theob., by original designation.

*Ceratocystia*, Dyar and Knab, Jour. N. Yk. Ent. Soc. XIV, 183 (1906).

GENOTYPE, *Culex discolor* Coq., by original designation.

*Feltidia*, Dyar, Proc. Ent. Soc. Wash. VII, No. 1, 47 (1905).

GENOTYPE, *Culex jamaciensis* Theob., by original designation.

**sollicitans** Walk., Ins. Saund. Dipt., pt. 5, 427 (*Culex*), (1856).

*Culex sollicitans*, Theob., Monog. Culic. I, 368, ♀; pl. xvi, 64, ♀, full ins. col.

*Grabhamia sollicitans*, Theob., Monog. Culic. III, 248; fig. 130, wing ♀; IV, 291, life-history notes, fig. 97, 98, larval chars.:

Blanch., Moust., 295, ♀; fig. 212: Brun., Rec. Ind. Mus. I, 341; IV, 461, notes.

Formosa.

- spencerii** Theob., Monog. Culic. II, 99, ♀; pl. xxvi, 104, full ins. col. (*Culex*), (1901).  
*Culex spenceri*, Theob., *loc. cit.*, II, fig. 198, var. chars.: Giles, Handbk., etc., 2nd ed., 431, ♀  
*Grabhamia spenceri*, Theob., Monog. Culic. III, 250: Brun., Rec. Ind. Mus. I, 341.  
 Recorded by Theobald from the Philippines, but Banks (Phil. Jour. Sci. I, 986) doubts the identification. Type in British Museum.
- bitaeniorhynchus** Giles, Jour. Bomb. Nat. Hist. Soc. XIII, 607 (provis. descr.) (*Culex*), (1901).  
 Edwards, Bull. Ent. Res. IV, 231.  
*Culex bitaeniorhynchus*, Giles, Entom. XXXIV, 196, ♂ (1901).  
*Culex infula*, Theob., Monog. Culic. I, 370, ♀ (1901).  
 Giles, Handbk., 2nd ed., 407, ♀ (*infulus*): Blanch., Moust., 298, ♀: Leices., Culic. Malaya, 146 (Theob.'s descr. copied): Brun., Rec. Ind. Mus. I, 348.  
*Taeniorhynchus ager*, Giles, in Theob., Monog. Culic. II, 199, ♂; fig. 248, abdomen, palpus, proboscis, wing scales.  
 Giles, Handbk., 2nd ed., 365, ♂ ♀: Blanch., Moust., 385, ♂ ♀: Leices., Culic. Malaya, 168, ♂ ♀: Brun., Rec. Ind. Mus. I, 357; IV, 478.  
*Taeniorhynchus tenax*, Theob., Monog. Culic. II, 198, ♀; pl. xvii, 65, full ins. col. (1901).  
 Theob., *loc. cit.*, III, 259, fig. 236, wing: Giles, Handbk., 2nd ed., 365, ♀: Blanch., Moust., 386, ♀: Leices., Culic. Malaya, 167, ♀: Brun., Rec. Ind. Mus. I, 358; IV, 480.  
*Taeniorhynchus tenax*, var. *ocellatus*, Theob., Monog. Culic. IV, 488, ♀ (1907).  
*Grabhamia ambigua*, *id.*, *loc. cit.*, III, 248, ♂ (1903).  
*Grabhamia taeniarostris*, *id.*, *loc. cit.*, IV, 299, ♀ (1907).  
*Oculecmyia sarawaki*, *id.*, *loc. cit.*, IV, 515, ♀; fig. 236, 237; pl. vi, wing scales, ♀ (1907).  
 ? *Taeniorhynchus domesticus*, Leices., Culic. Malaya 169, ♂ ♀ (1908): Brun., Rec. Ind. Mus. IV, 479.  
 ? *Culicelsa abdominalis*, Taylor, Report Austral. Inst. Trop. Med. for 1911, p. 53 (1913).  
 Sylhet i to vi [Hall]; Calcutta, 2-ii-08 [Annandale]; Balighai, near Puri, 26-x-08, and 23-x-08 at light [both Annandale]; Shahjahanpur (Unit. Prov. India), [Giles]; Madras [Giles and Cornwall]; Pallode, 14-xi-08; Quilon vii [James]; Kerumadi, S. end of Vembanaad Lake, Travancore, 6-xi-08 [Annandale]; Peradeniya, i [Green]; Ceylon [Giles]; Mandalay, 12-ii-08 [Annandale]; Manipur, viii [Gourlay]; Perak [Wray, Wright]; Taiping; Sarawak [Barker]; Philippines [*t. Ludlow*].  
 Types of *tenax*, *infula*, *ambigua*, *taeniarostris* and *sarawaki* in British Museum; of *domesticus* in Leicester collection.  
 Edwards includes *domesticus*, Leices., temporarily as a variety, but notes that should it prove to be of specific rank it must be renamed, owing to the existence of *C. domesticus*, Germ.

**deniedmanni** Ludl., Can. Ent. XXXVI, 234, ♀ (*Grabhamia*), (1904).  
Philippines.

**epidesmus** Theob., Rec. Ind. Mus. IV, 22, ♀ (*Taeniorhynchus*), (1910).

*Id.*, Monog. Culic. V, 429, ♀ (*Taeniorhynchus*).

*Culex epidesmus*, Edw., Bull. Ent., Res. IV, 231.

*Taeniorhynchus luteoabdominalis*, Theob., Rec. Ind. Mus. IV, 423, ♀ (1910): *id.*, Monog. Culic. V, 423: Brun., Rec. Ind. Mus. IV, 479.

*Grabhamia ochracea*, Theob., Jour. Econ. Biol. I, 25 ♀ (1905).

Theob., Monog. Culic. IV, 300, ♀

Bhogaon, 2-x-08; Katihar, 5-x-08 [both Bengal and *Paiva*]; India [*Christophers*].

*Types of epidesmus and luteoabdominalis* in Indian Museum; of *ochracea* in British Museum.

#### Ochlerotatus, Arrib.

Rev. Mus. La Plata II, 143 (1891).

Brun., Rec. Ind. Mus. X, 67, note *re* genotype.

Edwards, Bull. Ent. Res. II, 246; VII, 203.

GENOTYPE, *Culex albifasciatus* Macq.<sup>1</sup>

*Finlaya*, Theob., Monog. Culic. III, 281 (1903).

Theob., *loc. cit.*, IV, 520; Gen. Ins., Fasc. 26, 32: Blanch., Moust., 415, 630.

Brun., Rec. Ind. Mus. I, 360; IV, 485; X, 60.

GENOTYPE, *F poicilia*, Theob., by my own designation (1914).

*Aedimorphus*, Theob., Monog. Culic. III, 290 (1903).

GENOTYPE, *Uranotaenia domestica*, Theob., by original designation.

*Danielsia*, Theob., Entom. XXXVII, 78 (1904).

Theob., Gen. Ins., Fasc. 26, 21: *id.*, Monog. Culic. IV, 240: Leices., Culic. Malay., 117.

GENOTYPE, *D. albotaeniata*, *id.*, *loc. cit.*, sp. nov.

*Culicelsa*, Felt, N. Yk. State Mus. Bull. 79, Ent. 22. App., p. 391 (1904).

GENOTYPE, *Culex taeniorhynchus* W., by original designation.

*Culicada*, Felt., *loc. cit.*, p. 391b (1904).

Theob., Jour. Econ. Biol. I, 26 (1905): *id.*, Monog. Culic. IV, 318 and p. 10; V, 294, tab. spp.: Brun., Rec. Ind. Mus. IV, 461; X, 58. [tion.

GENOTYPE, *Culex canadensis* Theob., by original designa- [tion.

*Ecculex*, Felt, *loc. cit.*, p. 391c (1904). [tion.

GENOTYPE, *Culex sylvestris* Theob., by original designa-

<sup>1</sup> See Brun., Rec. Ind. Mus. X, 67. Edwards agrees to *albifasciatus*, Macq., as the type species, though Coquillett has suggested *confirmatus*, Arrib.

- Protoculex*, Felt, *loc. cit.*, p. 391d (1904).  
 GENOTYPE, *Culex serratus* Theob., by original designation.
- Pseudoculex*, Dyar, Proc. Ent. Soc. Wash. VII, 45 (1905).  
 GENOTYPE, *Culex aurifer* Coq.
- Chrysoconops*, Goeldi, Os. Mosq. do Para, 114 (1905).  
 Theob., Monog. Culic. IV, 491; V, 433, tab. spp.: Brun.  
 IV, 480; X, 157.  
 GENOTYPE, unknown to present author.
- Reedomyia*, Ludl., Can. Ent. XXXVII, 94 (1905).  
 Theob., Monog. Culic. IV, 257, ♂ ♀, list. and tab. spp.; V,  
 252: Brun., Rec. Ind. Mus. I, 362; IV, 486, note; X, 70.  
 GENOTYPE, *R. pampangensis* Ludl., by original designation.
- Lepidotomyia* I, Theob., Ann. Mus. Hung. III, 80 (1905).  
 nec *Lepidotomyia* II, Theob., Gen. Ins., Fasc. 26, 22 (1905).  
 GENOTYPE, *L. alboscuteclata*, *id.*, *loc. cit.*, sp. nov.
- Pecomomyia*, Theob., Jour. Econ. Biol. I, No. 1, 24 (1905).  
 Theob., Monog. Culic. IV, 265.  
 GENOTYPE, *P. maculata* Theob., by original designation.
- Pseudograbhamia* Theob., Jour. Bomb. Nat. Hist. Soc. XVI,  
 243 (1905).  
 Theob., Monog. Culic. IV, 314: Brun., Rec. Ind. Mus.  
 IV, 460; X, 69.  
 GENOTYPE, *P. maculata* Theob., by original designation.
- Phagomyia*, Theob., Gen. Ins., Fasc. 26, 21 (1905).  
 Theob., Monog. Culic. IV, 223; V, 224, tab. spp.: Brun.,  
 Rec. Ind. Mus. I, 338; IV, 456; X, 68.  
 GENOTYPE, *Stegomyia gubernatoris* Giles.<sup>1</sup>
- Polyleptomyia*, Theob., Gen. Ins., Fasc. 26, 21 (1905).  
 Theob. Monog. Culic. IV, 223.  
 GENOTYPE, *P. albocephala* Theob., by original designation.
- Lepidotomyia* II,<sup>2</sup> Theob., Gen. Ins., Fasc. 26, 22 (1905).  
 Theob., Monog. Culic. IV, 249; V, 249: Brun., Rec. Ind.  
 Mus. IV, 458, note on names; X, refs. to names.  
 nec *Lepidotomyia* I, Theob., Ann. Mus. Hung. III, 80; which  
 = *Reedomyia*, Ludl.  
 GENOTYPE, *L. magna* Theob., by original designation.
- Lepidoplatus*, Coq., Science XXIII, 314 (1906).  
 GENOTYPE, *Culex squamiger* Coq., by original designation.
- Pseudoskusea*, Theob., Monog. Culic. IV, 192 (1907).  
 GENOTYPE, *Skusea multiplex* Theob., by my own designa-  
 tion, 1914.
- Pseudohowardina*, Theob., Monog. Culic. IV, 223 (1907).  
 GENOTYPE, *Culex trivittatus* Coq., by original designation.
- Neomacleaya*, Theob., Monog. Culic. IV, 238 (1907).

<sup>1</sup> Theobald does not definitely select this species, but he places it first out of three species on three separate occasions, the third species being admittedly doubtfully congeneric.

<sup>2</sup> Theobald's first genus of the name of *Lepidotomyia* was admittedly synonymous with *Reedomyia*, but his second *Lepidotomyia* was (in his view) a valid genus.

- Brun., Rec. Ind. Mus. IV, 458.  
 GENOTYPE, *N. indica*, *id.*, *loc. cit.*, sp. nov.  
*Protomacleaya*, Theob., Monog. Culic. IV, 253 (1907).  
 GENOTYPE, *Culex triseriatus* Say.  
*Duttonia*, Newstead, Ann. Trop. Med. Parasit. I, 17 (1907).  
 GENOTYPE, *D. tarsalis*, Newstead by original designation.  
*Mimeteculex*, Theob., 3rd Rep. Wellcome Res. Labor. Gordon College, 258 (1908).  
 Theob., Monog. Culic. V, 408.  
 GENOTYPE, *M. kingii* Theob., by original designation.  
*Geitonomyia*, Leices., Culic. Malaya, 134 (1908).  
 GENOTYPE, *Culex caecus* Theob., by original designation.  
*Myxosquamus*, Theob., Monog. Culic. V, 225 (1910).  
 GENOTYPE, *M. confusus* Theob., by original designation.  
*Neopetomyia*, Theob., Monog. Culic. V, 261 (1910). [tion.  
 GENOTYPE, *N. uniannulata* Theob., by original designa-  
*Stenoscutus*, Theob., Monog. Culic. V, 263 (1910)  
 GENOTYPE, *S. africanus* Theob., by original designation.  
*Bathosomyia*, Theob., Monog. Culic. V, 267 (1910).  
 GENOTYPE, *B. abnormalis* Theob., by original designation.  
*Pseudocarrollia*, Theob., Rec. Ind. Mus. IV, 12 (1910).  
*Id.*, Monog. Culic. V, 186; Brun., Rec. Ind. Mus. IV, 454;  
 X 69. [tion.  
 GENOTYPE, *P. lophoventralis* Theob., by original designa-  
*Leslieomyia*, Christophers, Paludism, No. 2, 68 (1911).  
 GENOTYPE, *L. taeniorhynchoides* Christophers, by original  
 designation.  
*Acartomyia*, Theob., Monog. Culic. III, 251 (1903).  
 GENOTYPE, *A. zammitii* Theob., by original designation.  
 ? *Gilesia*, Theob., Monog. Culic. III, 233 (1903).  
 ? *Gualteria*, Lutz in Bourroul's Mosq. Bras. 49 (? 54) (1904).  
 Theob., Gen. Ins., Fasc. 26, 21; *id.*, Monog. Culic. IV,  
 240; Leices., Culic. Malaya, 117. [(1906).  
 ? *Cacomyia*, Coq., U.S. Dep. Agric. Bull. Tech. Ser. II, 16  
 ? *Stegoconops*, Lutz, Imprensa Medica (1906). (? *nom. nud.*)  
 Peryassu, Os. Culic. do Bras., 34 (1908).  
 ? *Molpemyia*, Theob., Monog. Culic. V, 479 (1910).  
 ? *Andersonia*, Strickland, Entom., 250 (1911).
- vexans** Mg., Syst. Besch. VI, 241 (*Culex*), (1830).  
*Ochlerotatus vagans*, Edw., Bull. Ent. Res. VII, 218.  
*Culex articulatus*, Rond., Bull. Soc. Ent. It. IV, 70 (1832).  
*Culex sylvestris*, Theob., Monog. Culic. I, 406 (1901).  
*Culex vagans*, *id.*, *loc. cit.* I, 411 (1901).  
*Culicada nipponii*, *id.*, *loc. cit.*, IV, 337 (1907).  
*Culicada minuta*, *id.*, *loc. cit.*, IV, 338 (1907).  
*Culex stenoetrus*, *id.*, *loc. cit.*, IV, 395 (1907).  
*Ochlerotatus stenoetrus*, Edw., Bull. Ent. Res. IV, 228.  
*Culicada eruthrosops*, Theob., Monog. Culic. V, 299, ♀, fig. 140,  
 wing (1910).

*Culex pseudostenoetrus*, *id.*, *loc. cit.*, V, 343, fig. 154, wing (1910).

*Culex hirsutum*, Ludl., Psy. XVIII, 126 (1911).

? *Culex nocturnus*, Theob., Monog. Culic. III, 159 (1903).

A very widely distributed species. India [*Christophers*]; Maskeliya, Ceylon, iv [*Green*]; Hakgala, Ceylon, v, viii-07 [*Green*]; Trincomalee, xi-06. Also found in China, Japan, the Philippines, Borneo, England and other parts of Europe, in Canada and possibly in Fiji.

Edwards finds the male genitalia of specimens from many of these localities agree exactly. He finds three definite varieties, *vexans* (*articulatus*, *sylvestris*); *stenoetrus* (*minuta*, etc.), and *nipponii* (*vagans*, Theob., nec. Wied.). Types of *minuta*, *stenoetrus*, *eruthrosops* and *pseudostenoetrus* in British Museum.

**imprimens** Walk., Proc. Linn. Soc. V, 144, ♀ (*Culex*), (1861).

Edwards, Bull. Ent. Res. IV, 228.

*Culex imprimens*, Giles, Handb., 262; 2nd ed., 411, ♀ (*imprimiens*, *lapsus*): Blanch., Moust., 306, ♀: Theob., Gen. Ins., Fasc. 26 (*imprimiens*): Brun., Rec. Ind. Mus. I, 348.

*Culicada suknaensis*, Theob., Rec. Ind. Mus. VI, 21, ♀ (1910).

*Id.*, Monog. Culic. V, 297, ♀, fig. 139, wing: Brun., Rec. Ind. Mus. IV, 462.

? *Culex auratus*, Leices., Culic. Malaya, 153, ♀: Brun., Rec. Ind. Mus. IV, 467.

Amboina, Sukna, 1—2-vii-08 [*Annandale*]; Malaysia [*t. Leicester*].

Type of *imprimens*, a remnant, in British Museum: of *suknaensis* in Indian Museum.

**conopas** Frnfd., Verh. zool.-bot. Ges. Wien. XVII, 451 (*Culex*) (1867).

*Culex conopas*, Giles, Handbk., 286.

*Taeniorhynchus conopas*, Theob., Monog. Culic. II, 202, ♂, fig. 249, wing, wing scales, scutellum; pl. xxiii, 90, ♀, full ins. col.; pl. E, wing scales: Giles, Handbk., 2nd ed., 360, ♂: Blanch., Moust., 387, ♀ (*conopus*): Brun., Rec. Ind. Mus. I, 358: Leices., Culic. Malaya, 166, ♀

*Chrysoconops conopas*, Brun., Rec. Ind. Mus. IV, 481.

Selangor, 28-x-99 [*Butler*]; Kuala Lumpur [*Durham*]; Klang [*Leicester*]; Perak [*Wray*]; Dinding, Straits, vi, xii; Formosa, 8-i-1900 and vi [*Ford*]; Philippines [*t. Ludlow*].

Type, location unknown to present author.

**kochi** Don., Insektenborse XVIII, 38, ♀ (*Culex*), (1901).

*Culex kochi*, Theob., Monog. Culic. II, 217: Blanch., Moust., 272, ♀

*Finlaya kochi*, Theob., Monog. Culic. III, 284: Brun., Rec. Ind. Mus. I, 361.

Papua. Type, location unknown to present author.

**gubernatoris** Giles, Jour. Bomb. Nat. Hist. Soc. XIII, 607 (*Culex*), (provis. descr.), (1901).



*Culex gubernatoris*, *id.*, Entom. XXXIV, 194: Theob., Monog.

Culic. I, 314, ♀, fig. 97, thorax ♀

*Ochlerotatus gubernatoris*, Edw., Bull. Ent. Res. IV, 226.

*Stegomyia gubernatoris*, Giles, Handbk., 2nd ed., 380, ♀: Blanch., Moust., 261, ♀

*Phagomyia gubernatoris*, Theob., Gen. Ins., Fasc. 26, 21: Brun., Rec. Ind. Mus. I, 338.

*Lepidotomyia* (II) *magna*, Theob., Gen. Ins., Fasc. 26, 22 (1905).<sup>1</sup>

Theob., Monog. Culic. IV, 250, ♂ ♀

Allahabad, vii; North India; Bombay, 19-viii-02 [*James*];

Purnea, Bengal, 6-viii-07 [*Paiva*]; Pampanga, Philippine Is. [*Whitmore*].

*Types* of *gubernatoris* (damaged but recognizable), and *magna* in British Museum; of *lophoventralis*, a unique specimen, in Indian Museum.

As regards the *L. magna* of Theobald it must be remembered that he had two genera named *Lepidotomyia*, the first being synonymous with the previously described *Reedomyia*, Ludl., the second represented solely by *magna*.

**pulchriventer** Giles, Jour. Bomb. Nat. Hist. Soc. XIII, 608 (*Culex pulchriventer*, provis. descr.), (1901).<sup>2</sup>

*Culex pulchriventer*, Theob., Monog. Culic. II, 48, ♂ ♀; pl. xxiii; 92, ♀, full ins. col., fig. 170, ♂ ♀, var. chars.; fig. 172, wing, ♂; fig. 171, wing, ♀; fig. 173, larva: Giles, Handbk., 2nd ed., 449, ♂ ♀; pl. xvii, var. chars.: Blanch., Moust., 338, ♂ ♀: Brun., Rec. Ind. Mus. I, 351.

*Ochlerotatus pulchriventer*, Edw., Bull. Ent. Res. IV, 228.

*Howardina himalayana*, Giles, Jour. Trop. Med. VII, 384, ♀ (1904): Brun., Rec. Ind. Mus. IV, 456.

Naini Tal, viii.

*Types* of *pulchriventer* and *himalayana* in British Museum.

**caecus** Theob., Monog. Culic. I, 413, ♀; fig. 147, head, 148, scutellum and scales; pl. xx, 77, full ins. col. (*Culex*), (1901).

*Culex caecus*, Theob., *loc. cit.*, IV, 268; fig. 86, wing ♀; pl. i, wing scales, ♀: Giles, Handbk., 2nd ed., 415, ♀: Blanch., Moust., 305, ♀

*Geitonomyia caecus*, Leices., Culic. Malaya, 135, ♂ ♀

*Pecomomyia caeca*, Theob., Monog. Culic. IV, 268; fig. 86, wing ♀; pl. i, wing scales, ♀: Brun., Rec. Ind. Mus. IV, 459.

Selangor, 28-x-99 [*Butler*]; Klang; Ipoh, Perak; Straits [*Durham*]; Philippines [*t. Ludlow*]. *Type* in British Museum.

**mediolineatus** Theob., Monog. Culic. II, 113 (*Culex*), (1901).

*Culex mediolineatus*, Giles, Handbk., 2nd ed., 341, ♀: Blanch., Moust., 369, ♀

*Ochlerotatus mediolineatus*, Edw., Bull. Ent. Res. IV, 228.

*Culex trilineatus*, Theob., Monog. Culic. II, 105, ♀ (1901); *loc.*

<sup>1, 2</sup> A "description" of five lines only in each case.

*cit.*, V, 359: Giles, Handbk., 2nd ed., 464, ♀: Blanch., Moust., 330, ♀: Brun., Rec. Ind. Mus. IV, 476.

*Types* of both *mediolineatus* and *trilineatus* in British Museum.

**aurites** Theob., Monog. Culic. II, 209, ♀; fig. 253, 254, var. chars.; pl. xxii, 88, ♀, full. ins. col. (*Taeniorhynchus*), (1901).

*Taeniorhynchus aurites*, Giles, Handbk., 2nd ed., 362, ♀: Brun., Rec. Ind. Mus. I, 357.

*Chrysoconops aurites*, Brun., Rec. Ind. Mus. IV, 480.

Dindings, Perak [*Wright*]; Kuala Lumpur, 10-xi-02; 25-v-02 [*Durham*]; Philippines [*t. Ludlow*].

*Type* in British Museum, from Dr. Annett's collection.

**pipersalatus** Giles in Theob., Monog. Culic. II, 316, ♂ ♀ (*Stegomyia*), (1901).

*Stegomyia pipersalata*, Giles, Handbk., 2nd ed., 372, ♀ only<sup>1</sup>; pl. xvi, 1 a, b, venation (given as ♂, Edwards says it is ♀) (1902); V, 607, App. (note as to generic position): Blanch., Moust., 264 (♀ only): Brun., Rec. Ind. Mus. I, 332; IV, 448.

*Pseudograbhamia maculata*, Theob., Jour. Bomb. Nat. Hist. Soc. XVI, 243, ♂ ♀ (1905): Theob., Monog. Culic. IV, 314, ♂ ♀; fig. 109, wing ♀

*Ochlerotatus pipersalatus*, Edw., Bull. Ent. Res. IV, 227.

Jhansi; Gonda, N.W. India; Galgamuwa, Ceylon, viii [*Green*]; Madras town, 30-x-08 [*Hodgart*].

*Types* of *pipersalatus* and *maculata* in British Museum. Theobald (Monog. I, 316) attributes this species to Giles, and this appears to be the original description, but he adds as a reference "Handbk., 2nd ed., 1901," giving no page, which makes it appear as though the latter work had not appeared at the time. Giles, 2nd ed., is dated 1902, a year later than Theobald's Monograph Vol. I, so the latter reference must stand.

**ochraceus** Theob., Monog. Culic. III, 263, ♀; fig. 140, scutellum (*Taeniorhynchus*), (1903).

*Ochlerotatus ochraceus*, Edw., Bull. Ent. Res. II, 250.

*Taeniorhynchus ochraceus*, Leices., Culic. Malaya, 164.

*Taeniorhynchus ochraceus*, Brun., Rec. Ind. Mus. I, 358.

*Chrysoconops ochraceus*, *id.*, *loc.*, *cit.* IV, 481.

Kuala Lumpur [*Durham*]. *Type* in British Museum.

**poicilia** Theob., Monog. Culic. III, 283, ♀; fig. 156, wing scales (slightly incorrect) (*Finlaya*), (1903).

*Finlaya poicilia*, Giles, Jour. Trop. Med. VII, 366 (*poialia*, *lapsus*): Theob., Monog. Culic. IV, 520; fig. 238 (corrected wing ♂): Blanch., Moust., 415: Brun., Rec. Ind. Mus. I, 361; IV, 486.

Penang, 24-x-07 [*Freear*]; Friedrich Wilhelmshafen, Seleo Berlinhafen and Mt. Hausemann, Astrolabe Bay [all Papua and

<sup>1</sup> Edwards says (Bull. Ent. Res. IV, 227) that the ♂ belongs to a different species at present undescribed. He should, however, have retained the specific name for the ♂ and renamed the ♀

*Biro*]; Pasir Ganting, W Coast Sumatra, vi-14; Lampongs, Sumatra, vi-14 [both *t. Stanton*]; Pampanga [*Whitmore*]; Negros I., Philippines [*Banks*]. Also occurs in N. Queensland. *Type* in British Museum.

**multiplex** Theob., Monog. Culic. III, 293, ♀; fig. 165, claws (*Skusea*), (1903).

*Skusea multiplex*, Brun., Rec. Ind. Mus. I, 336.

*Pseudoskusea multiplex*, Theob., Monog. Culic. IV, 192, ♂: Brun., Rec. Ind. Mus. IV, 450.

Friedrich Wilhelmshafen, Stephansort; Muina; Ins. Graget [all Papua and *Biro*]. *Type* in Hungarian Museum.

**niveus** Ludl., Jour. N. Yk. Ent. Soc. XI, 139 (*Stegomyia nivea*), (1903).

*Stegomyia nivea*, Leices., Culic. Malaya, 87, ♂ ♀

*Scutomyia nivea*, Theob., Monog. Culic. V, 203: Brun., Rec. Ind. Mus. I, 336; IV, 452.

*Ochlerotatus niveus*, Edw., Bull. Ent. Res. IV, 227.

*Stegomyia pseudonivea*, Theob., Ann. Mus. Hung. III, 75 (1905).

Theob., Monog. Culic. IV, 188, ♀; V, 176, ♂, fig. 64, head: Brun., Rec. Ind. Mus. I, 332; IV, 448.

Fed. Malay States; Oras, Samor, Philippine Is., v, vi, 1902; Andaman Is. [*Lowis*].

*Type* of *niveus* in Army Medical Museum, Washington, of *pseudonivea* in Hungarian National Museum.

See note under *S. amesii*, Brun., Rec. Ind. Mus. I, 329.

**albotaeniatus** Leices. in Theob., Entom. XXXVII, 111, ♂ ♀ (*Danielsia*), (1904).

*Danielsia albotaeniata*, Theob., Monog. Culic. IV, 241, ♂ ♀; fig. 72 (cephalic and scutellar adornment): Brun., Rec. Ind. Mus. I, 338; IV, 458: Leices., Culic. Malaya, 117, ♂ ♀

Malay Peninsula. *Type* in Leicester coll.

**melanopterus** Giles, Jour. Trop. Med. VII, 367 (*Finlaya*), (1904).

*Finlaya melanoptera*, Banks, Phil. Journ. Sci. I, 990 (1906).

*Ochlerotatus melanopterus*, Edw., Bull. Ent. Res. VII, 214.

*Popea palawanensis*, Ludl., Psy. XXI, 31 (1914).

Philippines. *Type* of *melanopterus* in British Museum.

**flavipennis** Giles, Jour. Trop. Med. VII, 367 (*Finlaya*), (1904).

Pampanga [*Whitmore*]. *Type* in British Museum.

**niveoscutellatus** Theob., Jour. Econ. Biol. I, No. 1, 22; pl. iii, 5, ♀ (*Reedomyia*), (1905).

Theob., Monog. Culic. IV, 259, ♂ ♀; fig. 79, ♂, fore claws: Brun., Rec. Ind. Mus. IV, 487.

India; Philippines [*t. Ludlow*]. *Type* in British Museum.

**alboscutecllatus** Theob., Ann. Mus. Hung. III, 80, ♀ (*Lepidotomyia*), (1905).

*Reedomyia alboscutecllata*, Theob., Monog. Culic. IV, 261, ♀; fig. 80, wing, ♀: Brun., Rec. Ind. Mus. IV, 487.

- Lepidotomyia alboscuteUata*, Leices., Culic. Malaya, 132, ♂ ♀ :  
Brun., Rec. Ind. Mus. I, 339.  
Simbang (Huon Gulf), and Friedrich Wilhelmshafen [both  
Papua and Biro]; Kuala Lumpur. Type in Hungarian Mus.
- pampangensis** Ludl., Can. Ent. XXXVII, 94, ♀ (*Reedomyia*),  
(1905).  
*Reedomyia pampangensis*, Theob., Monog. Culic. IV, 258, ♀  
Brun., Rec. Ind. Mus. I, 362.  
Anzeles, Pampanga, ix [Whitmore].  
Type in Army Medical Museum, Washington.
- aranetana** Banks, Phil. Jour. Sci. I, 1001, ♂ ♀ (*Finlaya*), (1906).  
*Finlaya aranetana*, Brun., Rec. Ind. Mus. I, 361.  
Bago, Negros I., on the Siya Siya Peak of the Canlaon Vol-  
cano, 700 metres, vi.  
Types in Entom. coll. No. 6066, ♂ ♀, Bureau of Science,  
Manila.
- pallidostriatus** Theob., Monog. Culic. IV, 410, ♂ ♀, fig. 175,  
wing ♂ (*Culex*), (1907).  
*Ochlerotatus pallidostriatus*, Edw., Bull. Ent. Res. IV, 228.  
*Ochlerotatus ochraceus*, Edw. (pt.), Bull. Ent. Res. II, 250.  
*Culex pallidostriatus*, Edw., Bull. Ent. Res. IV, 228.  
*Culex parascelos*, Theob., Rec. Ind. Mus. IV, 18, ♀ (1910): *id.*,  
Monog. Culic. V, 379: Brun., Rec. Ind. Mus. IV, 473.  
*Mimeteceulex kingii*, Theob., 3rd Rep. Wellc. Labor., 258 (1908).  
India [James, Christophers]; Madras town, 30-x-08 [Hodgart];  
Peradeniya, xii [Green].  
Type of *pallidostriatus* in British Museum, of *parascelos* in  
Indian Museum. Edwards now considers *ochraceus*, Theob., typi-  
cal form, to be confined to the Ethiopian Region.
- taeniatus** Leices., Culic. Malaya, 133, ♂ ♀ (*Lepidotomyia*), (1908).  
*Lepidotomyia taeniata*, Brun., Rec. Ind. Mus. IV, 459.  
Malaysia. Type in Leicester collection.
- ostentatio** Leices., Culic. Malaya, 193, ♀ (*Aioretomyia*), (1908).  
*Ochlerotatus ostentatio*, Edw., Bull. Ent. Res. IV, 228.  
*Aioretomyia ostentatio*, Brun., Rec., Ind. Mus. IV, 490.  
*Pseudohowardina chrysoscuta*, Theob., Monog. Culic. V, 228, ♀ ;  
fig. 94, wing (1910).  
Malaysia; Peradeniya, iv-07 [Green].  
Type of *ostentatio* in Leicester collection; of *chrysoscuta* in  
British Museum. Edwards notes that as the ♂ is unknown, the  
location here of this species is provisional.
- lowisii** Theob., Monog. Culic. V, 257, ♂ ♀ ; fig. 121, head ♀, 122  
wing, 123, head ♂, 124, wing, ♂ (*Reedomyia*), (1910).  
Galle, Ceylon, 6 iv-07 [Fletcher]; Andaman Is. [Lowis and Ray  
White]. Type in British Museum.
- lophoventralis** Theob., Rec. Ind. Mus. IV, 13 (*Pseudocarrollia*),  
(1910).  
*Ochlerotatus lophoventralis*, Edw., Bull. Ent. Res. VII, 214.

*Pseudocarrollia lophoventralis*, Theob., Monog. Culic. V, 186, ♀ :  
Brun., Rec. Ind. Mus. IV, 454.  
Purnea, Bengal (*type*) [*Paiva*]; Pusa [*Howlett*].  
*Type* in Indian Museum.

**alboannulis** Ludl., Psyche XVIII, 132, ♀ (*Duttonia*), (1911).  
Mindanao, Philippine Is., i, xi, xii.  
*Type* in Army Medical Museum, Washington.

**taeniorhynchoides** Chris., Paludism, No. 2, p. 68 (*Leslieomyia*),  
(1911).

*Ochlerotatus taeniorhynchoides*, Edwards, Bull. Ent. Res. IV, 227.  
*Pecomyia maculata*, Theob. (*nec* Meigen), Jour. Econ. Biol. I, 24;  
pl. iv, 7 (1905): Theob., Monog. Culic. IV, 266, ♂ ♀; figs. 82,  
83, 84, wings ♀, India [*James*; *Christophers*].

*Type*, location of that of *taeniorhynchoides* unknown to present  
author; that of *maculata* in British Museum. Mr. Edwards  
says *maculata* may possibly be distinct, in which case it must  
be renamed, as *Culex maculatus*, Mg. falls in this genus.

**annulifemur** Edw., Bull. Ent. Res. V, 77, ♂ (1914).

Jhansi, N.W. India, viii, 1900 [*Giles*].

*Type* in British Museum.

The specimen was the *type* ♂ of *Stegomyia pipersalata*, Giles,  
but that author had confounded two species under one name.  
Edwards fully describes it.

**jamesii** Edw., *loc. cit.*, 77 (1914).

Colombo [*James*]; Galle [*Fletcher*]. *Type* in Brit. Mus.

**oreophilus** Edw., Bull. Ent. Res. VI, 357, ♀ (1915—16).

Gharia, Murree Hills, W. Himalayas, 16-viii. Unique *type* in  
British Museum, sent by Pusa Agricultural Research Institute.

**koreicus** Edw., Bull. Ent. Res. VII, 212, ♂ ♀ (1916—17).

Korea [*Dr. Mills*]. *Types* presented to British Museum by  
Dr. Stanton.

### **Aedes, Mg.**

Syst. Besch. I, 13 (1818).

Sch., F. Austr. II, 630: Ficalbi, Bull. Soc. Ent.  
It., 299 (1896): Theob., Monog. Culic. II, 224;  
III, 285, restricted; V, 482, tab. spp.: *id.*, Gen.  
Ins., Fasc. 26, 35: Giles, Handb., 343; 2nd ed.,  
480; tab. spp., 346: Blanch., Moust., 399, ♂  
♀: Leices., Culic. Malaya, 183: Brun., Rec. Ind.  
Mus. IV, 489; X, 45, tab. *Aedes* group: Edw.,  
Bull. Ent. Res. IV, 229; VII, 203: Alcock, Ent.  
Med. Off., 102: Howard, Dyar and Knab, Mosq.  
N. Am., etc., IV, pt. 2, 612.

GENOTYPE, *A. cinereus* Mg., by original designation.

*Heteronycha*, Arrib., Rev. Mus. La Plata. I, 397  
(1891).

GENOTYPE, *Culex aestuans* Wied., as *dolosa*, sp. nov., by original designation.<sup>1</sup>

*Skusea*, Theob., Monog. Culic. III, 291 (1903).

*Id.*, loc. cit., IV, 542; V, 488, tab. spp.: Gen. Ins., Fasc. 26, 19: Blanch., Moust., 416: Brun., Rec. Ind. Mus. I, 335, IV, 450, notes; X, 71: Edw., Bull. Ent. Res. VII, 203.

GENOTYPE, *S. pambaensis* Theob., by Blanchard's designation, 1905.

*Verrallina*, Theob., Monog. Culic. III, 295 (1903).

Theob., loc. cit., V, 494, tab. spp.: Blanch., Moust., 417.

Leices., Culic. Malaya, 196, ♂ ♀.

GENOTYPE, *Aedes butleri* Theob., by Coquillett's designation<sup>2</sup> (1910).

*Macleaya*, Theob., Entom. XXXVI, 154 (1903).

Theob., Monog. Culic. IV, 203.

GENOTYPE, *M. tremula*, sp. nov., loc. cit.

*Neomacleaya*, Theob., Monog. Culic. IV, 238 (1907).

GENOTYPE, *N. indica* Theob., by original designation.

*Aioretomyia*, Leices., Culic. Malaya, 185 (1908).

Brun., Rec. Ind. Mus. IV, 490; X, 55.

GENOTYPE, *A. varietas* Leices., by my own designation.

*Catageiomyia*, Theob., Monog. Culic. V, 115 (1907).

This is a *nomen nudum*, of which no further information seems available.

Howard, Dyar and Knab give nearly fifty generic synonyms of *Aedes*. As Edwards recognises several of them as valid genera, viz. *Banksinella*, *Grabhamia*, *Howardina*, *Ochlerotatus*, *Stegomyia* and *Taeniorhynchus*, I have adopted all these latter with the respective synonymy of each as worked out by that author, the remainder of the American authors' synonyms being recognised here as such.

**pseudotaeniatus** Giles, J. Bomb. Nat. Hist. Soc. XIII, 606, prov. descr., 1901; Entom. XXXIV, 192 (*Stegomyia*), (1901).

*Hullecoetomyia pseudotaeniata*, Brun., Rec. Ind. Mus. I, 337; IV, 455: Theob., Monog. Culic. V, 222 (♂ descr.); fig. 89; wing, 90, head ♂, 91, ♂ genitalia.

*Stegomyia pseudotaeniata*, Giles, Handbk., etc., 2nd ed., 379, ♂ ♀; pl. xiv, 8, venation, 9, body, 10, larva: Theob., Monog. Culic. I, 312, ♀; fig. 96, thorax, head ♀, wing scales; 314, larva described: loc. cit., III, fig. 16 (p. 28), larva: Blanch., Moust., 261, ♀

Dehra Dun [*Thomson*]; Bakloh, Punjab; Naini Tal, 6000—8000 ft. [*Giles*]; Lushai Hills, 29-vii-14; Rizal, Manila, i [*Banks*]. Type in British Museum.

<sup>1</sup> *Culex aestuans*, Wied., has been regarded by some as synonymous with *C. fatigans*, Wied., in which case the generic synonymy here seems doubtful.

<sup>2</sup> Edwards in selecting *butleri* as genotype (Bull. Ent. Res. IV, 229) overlooks Coquillett's designation of the same species in 1910.

- uncus** Theob., Monog. Culic. II, 53 (*Culex*), (1901).  
*Aedes uncus*, Edwards, Bull. Ent. Res. IV, 229; VII, 223, fig. 8d, ♂ genitalia.  
*Culex uncus*, Giles, Handbk., 2nd ed., 452, ♀: Blanch., Moust., 350, ♀  
*Neomacleaya indica*, var. *simplex* only, Theob., Rec. Ind. Mus. II, 291, ♀ (1908).  
 ? *Verrallina malayi*, Leic., Culic. Malaya, 198, ♀ (1908)  
 Sylhet, vi [Hall]; Klang; Kuala Lumpur. *Types of uncus* and *simplex* in British Museum; of *malayi* in Leicester's collection.
- butleri** Theob., Monog. Culic. II, 230, ♀ (1901).  
 Giles, Handbk., 2nd ed., 481, ♀: Brun., Rec. Ind. Mus. I, 367; IV, 489: Edwards, Bull. Ent. Res. IV 229.  
*Verrallina butleri*, Blanch., Moust., 417: Leices., Culic. Malaya, 196, ♂ ♀: Brun., Rec. Ind. Mus. IV, 491.  
*Skusea diurna*, Theob., Entom. XXXVI, 259, ♀ (1903).  
*Id.*, Monog. Culic. IV, 547, ♀: Brun., Rec. Ind. Mus. I, 335 IV, 451.  
*Stegomyia hatiensis*, Carter, Entom. XLIII, 275 (1910).  
 Malaysia; Selangor; Jugra, ix [Durham]; Philippine Is. [t. Ludlow]. *Types of butleri, diurna* and *hatiensis* in Brit. Mus.
- funereus** Theob., Monog. Culic. III, 292, ♀, fig. 164, head, abdomen (*Skusea*), (1903).  
*Skusea funerea*, var. *ornata*, Theob., Ann. Mus. Hung. III, 79, ♀, pl. i, wing (1905): Theob., Monog. Culic. IV, 542; fig. 248, wing ♀: Brun., Rec. Ind. Mus. I, 335; IV, 451.  
 Sattelburg (Huon Gulf) and Friedrich Wilhelmshafen [both Papua and *Biro*]: Philippines [t. Ludlow]. *Type of funereus* in British Museum; of *ornata* in Hungarian Museum.
- culiciformis** Theob., Ann. Mus. Hung. III, 77, ♀, pl. i, wing, pl. iv, wing scales (*Skusea*), (1905).  
*Skusea culiciformis, id.*, Monog. Culic. IV, 546, ♀, fig. 251, wing ♀: Brun., Rec. Ind. Mus. I, 335.  
 Paumomu Riv., Papua [Loria]. *Unique type* in Hungarian Museum.
- indicus** Theob., Monog. Culic. IV, 238, ♀ (*Neomacleaya*), (1907).  
*Aedes indicus*, Edw., Bull. Ent. Res. IV, 229.  
*Neomacleaya indica*, Brun., Rec. Ind. Mus. IV, 458.  
 nec *N indica* var. *simplex*, Theob.  
*Skusea mediofasciata*, Theob., Monog. Culic. IV, 544, ♂ ♀; fig. 249, wing ♀; 250, ♂ genitalia; pl. vii, wing scales ♀, pl. ix, ♂ genitalia (1907): Brun., Rec. Ind. Mus. IV, 451.  
*Pseudoskusea nigritarsis*, Ludl., Can. Ent. XL, 52 (1908).  
*Pseudoskusea mediolineata*, Ludl., loc. cit., XL, 332 (1908).  
 India [Christophers]; Woodlands, Ceylon, 9-x-07; Infanta, Tayabas, Philippine Is. *Type of indicus* and *mediofasciatus* in British Museum.

- nigrescens** Theob., Monog. Culic. IV, 540, fig. 246, wing ♀, 247, ♂ genitalia; pl. vi, wing scales, ♀ (1907).  
Brun., Rec. Ind. Mus. IV, 490.  
Castle Rock, Kanara Dist., S.W. India, i, ii, iii. Type in British Museum.
- jugraensis** Leices., Culic. Malaya, 109, ♂ ♀ (*Helecoeteomyia, lapsus*), (1908).  
Brun., Rec. Ind. Mus. IV, 455.  
Jugra, near Kuala Lumpur. Type probably lost; not in Leicester's collection.
- fluviatilis** Leices., Culic. Malaya, III, ♂ ♀ (*Hulecoetomyia*), (1908).  
Brun., Rec. Ind. Mus. IV, 455.  
Ulu Gombok, 13 miles from Kuala Lumpur. Type probably lost; not in Leicester's collection.
- varietas** Leices., Culic. Malaya, 185, ♂ ♀ (*Aioretomyia*), (1908).  
Brun., Rec. Ind. Mus. IV, 491.  
Kuala Lumpur; Ulu Gombak; Pangkor Haut; Klang. Type in Leicester collection.
- singularis** Leices., Culic. Malaya 188, ♂ (*Aioretomyia*), (1908).  
*Aedes singularis*, Edw., Bull. Ent. Res. VII, 223, fig. 8c, ♂ genitalia.  
Kuala Lumpur; Kuching, Sarawak [Moulton]. Type in Leicester's collection.
- taeniatus** Leices., Culic. Malaya, 190, ♀ (*Aioretomyia*), (1908).  
Kuala Lumpur. Type in Leicester's collection.
- perdita**, *id.*, *loc. cit.*, 192, ♂ (*Aioretomyia*), (1908).  
*Aioretomyia perdita*, Brun., Rec. Ind. Mus. IV, 490.  
Type lost.
- fragilis** Leices., Culic. Malaya, 199, ♂ (*Verrallina*), (1908).  
*Aedes fragilis*, Edw., Bull. Ent. Res. IV, 230.  
*Verrallina fragilis*, Brun., Rec. Ind. Mus. IV, 491.  
*Verrallina indecorabilis*, Leices., Culic. Malaya, 200, ♂ ♀ (1908).  
Brun., Rec. Ind. Mus. IV, 492.  
Kuala Lumpur. Type of *fragilis* and *indecorabilis* in Leicester's coll.
- imitator** Leices., Culic. Malaya, 201, ♀ (*Verrallina*), (1908).  
Kuala Lumpur. Type, damaged, in Leicester's collection.
- virilis**, *id.*, *loc. cit.*, 197, ♂ (*Verrallina*), (1908).  
Kuala Lumpur. Type, a unique ♂, in Leicester's collection.
- pseudodiurna** Theob., Rec. Ind. Mus. IV, 32, ♂ (*Skusea*), (1910).  
*Skusea pseudodiurna*, *id.*, Monog. Culic. V, 491, ♂: Brun., Rec. Ind. Mus. IV, 451.



Sukna, 1-vii-08 [*Annandale*]. *Type* in Indian Museum, a unique specimen.

**uniformis** Theob., Rec. Ind. Mus. IV, 33, ♀ (*Skusea*), (1910).

*Skusea uniformis*, *id.*, Monog. Culic. V, 491, ♀

Pallode, Travancore, 15-xi-08 [*Annandale*]. *Type*, unique, in Indian Museum.

**pseudomediofasciatus** Theob., Monog. Culic. V, 489, ♂ (*Skusea*), (1910).

Peradeniya and Hakgala, Ceylon, iii, iv, 07 [*Green*]. *Type* in British Museum.

**panangensis** Ludl., Psyche XXI, 159 (1914).

Philippine Is.

**ceylonicus** Edw., Bull. Ent. Res. VII, 221, ♂, fig. 8a, ♂ genitalia (1916—17).

Colombo, a unique ♂ [*K. McGahey*]. *Type* in British Museum.

**yerburyi** Edw., *loc. cit.*, 222, ♂, fig. 8g, ♂ genitalia (1916—17).

Kitli Station, Ceylon, 29-xi-91 [*Yerbury*]. *Type* (unique) in British Museum.

**leicesteri** Edw., *loc. cit.*, 222, ♂, fig. 8e, ♂ genitalia (1916—17).

Kuala Lumpur, one ♂, by stream in ampang jungle, 21-v-04 [*Leicester*].

**A. ? curtipes** Edw., Bull. Ent. Res. V, 283, ♀ (1914—1915).

Membakut, N. Borneo [*Roper*], Klang [*Leicester*]; also two ♀ ♀, including *type* of species from old collection of Sarawak Museum. *Type* in British Museum.

### Leicesteria, Theob.

Entom. XXXVII, 211 (1904).

Theob., Gen. Ins., Fasc. 29, 20: *id.*, Monog. Culic. IV, 201; V, 212: Leices., Culic. Malaya, 94: Edwards, Bull. Ent. Res. IV, 255, 257, tab. orient. spp.: Brun., Rec. Ind. Mus. I, 337; IV, 454; X, 63.

GENOTYPE, *L. longipalpis* Leices., by original designation.

*Chaetomyia*, Leices., Culic. Malaya, 100 (1908).

GENOTYPE, *C. flava* Leices., by original designation.

*Brevirhynchus*, Theob., Rec. Ind. Mus. II, 293 (1908).

*Id.*, Monog. Culic. V, 144, tab. spp.: Brun., Rec. Ind. Mus. IV, 442; X, 56.

GENOTYPE, *B. magnus* Theob., by original designation.

*Leicesteromyia*, Brun., Rec. Ind. Mus. IV, 452,  
*nom. nov.* for *Chaetomyia* Leices, preocc. Brauer  
 and Berg., 1892 in Tachininae: Brun., Rec. Ind.  
 Mus. X, 63.

**longipalpis** Leices. in Theob., Entom. XXXVII, 211, ♂ ♀ (1904).  
 Theob., Monog. Culic. IV, 201, ♂ ♀: Leices., Culic. Malaya,  
 94, ♂ ♀ Edw., Bull. Ent. Res. IV, 261, fig. 4, ♂ geni-  
 talia.

Kuala Lumpur [*Leicester*]. *Types* in British Museum.

**magna** Theob., Rec. Ind. Mus. II, 293, ♂ ♀ (*Brevirhynchus*),  
 (1908).

*Id.*, *loc. cit.*, IV, pl. i, wing; pl. iii, wing scales: *id.*, Monog.  
 Culic. V, 145, ♂ ♀; fig. 51, wing, fig. 52, head, side view  
 abdom. segments: Brun., Rec. Ind. Mus. IV, 443: Edw.,  
 Bull. Ent. Res. IV, 259, fig. 2, ♂ genitalia.

*Leicesteria annulitarsis*, Leices, Culic. Malaya, 100, ♂ only  
 (1908): Brun., Rec. Ind. Mus. IV, 454.

*Toxorhynchites rectirostris*, Giles in Theob., Monog. Culic. V, 214,  
*nom. nud.* (1910).

Sylhet, v [*Hall*]; Sukna, 1-viii-08 [*Annandale*]; Maddathorai,  
 Travancore, 17-xi-08 [*Annandale*]; Kuala Lumpur.

*Types* of *magna* ♂ ♀, in Indian Museum; of *annulitarsis* ♂,  
 in Leicester's collection.

**dolichocephala** Leices., Culic. Malaya, 95, ♂ ♀ (*dolichocephala*),  
 (1908).

Brun., Rec. Ind. Mus. IV, 455: Edw., Bull. Ent. Res. IV,  
 259.

Kuala Lumpur, Bukit Kutu (Malaysia). *Types* in Leices-  
 ter's collection.

**cingulata** Leices., Culic. Malaya, 97, ♀ (1908).

Brun., Rec. Ind. Mus. IV, 454: Edw., Bull. Ent. Res. IV,  
 260, fig. 3, ♂ genitalia.

Kuala Lumpur, iv, vi. *Type* in Leicester's collection.

**annulitarsis** Leices., Culic. Malaya, 99, ♀ only (1908).

Brun., Rec. Ind. Mus. IV, 454: Edw., Bull. Ent. Res. IV,  
 260.

Kuala Lumpur. *Type* in Leicester collection.

N.B.—*L. annulitarsis*, Leices. ♂ = *L. magna*, Theob.

**flava** Leices., Culic. Malaya, 101, ♂ ♀ (*Chaetomyia*), (1908).

*Leicesteria flava*, Edw., Bull. Ent. Res. IV, 258, fig. 1, ♂ geni-  
 talia.

*L. apicalis*, Theob., Rec. Ind. Mus. II, 291, ♂ ♀ (1908); IV,  
 pl. i, wing; pl. iii, wing scales: *id.*, Monog. Culic. V, 213,  
 ♂ ♀; fig. 86, wing: Brun., Rec. Ind. Mus. IV, 454.

*Brevirhynchus apicalis*, Theob., Rec. Ind. Mus. IV, 7, ♀ (1910):  
 Theob., Monog. Culic. V, 148: Brun., Rec. Ind. Mus. IV,  
 443.

*Leicesteriomyia flava*, Brun., Rec. Ind. Mus. IV, 453.

Malay Peninsula. *Types (flava)* in Leicester collection; of *apicalis* in Indian Museum.

**annulipalpis** Theob., Rec. Ind. Mus. IV, 6, ♀ (*Brevirhynchus*), (1910).

*Leicesteria annulipalpis*, Edw., Bull. Ent. Res. IV, 257, fig. 1, ♂ genitalia.

*Brevirhynchus annulipalpis*, Theob., Monog. Culic. V, 148: Brun., Rec. Ind. Mus. IV, 442.

Maddathorai, Travancore, 16-xi-08 [*Annandale*]. *Type*, unique in Indian Museum. May possibly not belong to *Leicesteria*.

**pendula** Edw., Bull. Ent. Res. IV, 261, ♂, fig. 5, ♂ genitalia (1914).

Between Selangor and Pahang, Malay States, 16-vi-04 [*Leicester*]. *Type* in British Museum.

**digitata**, *id.*, *loc. cit.*, IV, 262, ♂ ♀, fig. 6, ♂ genitalia (1914).

Ulu Gombak, Malay States, 28-viii-03; 2-ix-03, *types* [*Daniels*], between Selangor and Pahang, 16-iv-04 [*Leicester*], Pahang, near Kuala Lumpur, 4-iv-03, 18-x-03 [*Leicester*]; Mailum Negros, Philippine Is., 9-vi-06 [*Banks*]. *Types* in British Museum.

**pectinata**, *id.*, *loc. cit.*, IV, 263, ♂ ♀, fig. 7, ♂ genitalia (1914).

Jugra, 3-7-x-04, *type* ♂ [*Leicester*]; Sarawak [*Hewitt*]. *Type* ♂ in British Museum.

**omissa**, *id.*, *loc. cit.*, V 76, ♂ ♀ (1914).

Colombo [*James*]; Peradeniya [*Green*]. *Types* in British Museum. Possibly = *dolichocephala*, Leices., var.

### **Taeniorhynchus**, Arrib.

Rev. Mus. La Plata, II, 147 (1891).

Theob., Monog. Culic. II, 190 (restricted); *loc. cit.*, IV, 483, generic notes, etc.; V, 419, tab. spp.: *id.*, Gen. Ins., Fasc. 26, 30, modified: Giles, Handb., 2nd ed., 358: Blanch., Moust., 381, fig. 244, ♂ ♀, generic chars.: Leices., Culic. Malaya, 163: Edw., Bull. Ent. Res. II, 251: Brun., Rec. Ind. Mus. I, 356; IV, 478; X, 72, note on genotype.

GENOTYPE, *Culex titillans* Walk., as *C. taeniorhynchus* W

*Mansonia*, Blanch., Comp. rend. So. biol. Paris (1901), LIII, 1046, *nom. nov.* for *Panoplites*, Theob., preocc. Gould, 1853, in Aves.

Blanch., Moust., 375, 356, tab. spp.: Theob., Gen. Ins., Fasc. 26, 31: *id.*, Monog. Culic. IV, 494; V, 446, tab. spp.: Leices., Culic. Malaya, 171: Brun., Rec. Ind. Mus. I, 358; IV, 81; X, 64: Howard, Dyar and Knab, Mosq. N. Amer., etc., III, pt. 1, 501.

*Panoplites*, Theob., Rep. Coll. Mosq. Brit. Mus., 5 (1900).

*Id.*, Monog. Culic. II, 173 (1901): Giles, Handb., 2nd ed., 350.

GENOTYPE, *Culex titillans* Walk., as *Taeniorhynchus taeniorhynchus*, Wied., by Neveu Lemaire's designation.<sup>1</sup>

*Coquillettidia*, Dyar, Proc. Ent. Soc. Wash. VII, 47 (1905).

GENOTYPE, *Culex perturbans*, Walk. [ (1910).

*Rhynchotaenia*, Brethes., Ann. Mus. Buen. Ayres. XX, 470

GENOTYPE, *Taeniorhynchus fasciolatus* Arrib., by designation of Howard, Dyar and Knab (1915).

*acer* Walk., List. Dipt. Brit. Mus. I, 8, ♀ (*Culex*), (1848).

*nec acer*, Theob., Monog. Culic. II, 211 (1901).

Friedrich Wilhelmshafen; Mt. Hauseman, Astrolabe Bay; Yomba [all Papua and *Biro*]. Also occurs in Queensland and New Zealand. *Type* in British Museum.

*annulipes* Walk., Proc. Linn. Soc. Lond. I, 6, ♀ (*Culex*), (1857).

*Mansonia annulipes*, Leices., Culic. Malaya, 172, ♂ ♀: Brun., Rec. Ind. Mus. I, 359; IV, 482, notes.

*Panoplites annulipes*, Theob., Monog. Culic. II, 185, ♀; pl. xxx, 119, ♀, full ins. col.

*Culex dives*, Sch., Reise Novara, 31 (1868): Giles, Handbk., etc., 261.

*Culex nero*, Doles., Nat. Tijd. Ned. Ind. XIV, 383, pl. v, 3 (1857): Giles, Handbk., etc., 284.

*Mansonia nero*, Blanch., Moust., 380, ♀

Calcutta, 6-x-04 [*Brunetti*]; Selangor, 28-x-99 and ix [*Butler*]; Perak, "very abundant nocturnal species," [*Wright*]; Dindings, Straits, xi, xii [*Wright*]; Kuala Lumpur [*Durham* and *Leicester*]; Klang; Port Swettenham and Jugra [all *Leicester*]; Batavia [*t. Schiner*]; Rio Baco, Mindoro, Philippine Is. [*McGregor*]; Gombong, Mid-Java [*t. Doleschall*]. *Types*: I have no information about any of these.

*confinnis* Arrib., Revis. Mus. La Plata II, 149 (1891).

Theob., Monog. Culic. III, 289.

*Culex confinnis*, Giles, Handbk., etc., 247.

Chaca, Formosa.

Much doubt attaches to the correct identity of this species, which is a South American one.

*brevicellulus* Theob., Monog. Culic. II, 212, ♂ ♀; fig. 255, 256, var. chars.; pl. xxiii, 89, full ins. col. ♂ (1901).

*Taeniorhynchus brevicellulus*, *id.*, *loc. cit.*, III, 268 (correction in wing): Giles, Handbk., 2nd ed., 363, ♀ (*brevicellula*): Blanch., Moust., 389, ♂ ♀ (*brevicellula*): Leices., Culic. Malaya, 163, ♂ ♀: Brun., Rec. Ind. Mus. I, 357: Edw., Bull. Ent. Res. IV, 230.

*Chrysoconops brevicellulus*, Brun., Rec. Ind. Mus. IV, 481.

<sup>1</sup> For selection of and identification of type species, see Howard, Dyar and Knab, Mosq. N. Amer., etc., III, pt. 1, 502.

- Taeniorhynchus acer*, Theob. nec Walk., Monog. Culic. II, 211 (1901).
- Chrysoconops pygmaeus*, Theob., Rec. Ind. Mus. II, 300, ♀ (1908): *id.*, Monog. Culic. IV, 25, ♂; pl. i, wing; iii, wing scales: *id.*, *loc. cit.*, V, 435, ♂ ♀; fig. 192, wing, 193, head, ♂, 194, ♂ genitalia, 195, wing, ♀: Brun., Rec. Ind. Mus. IV, 481.
- Chrysoconops fuscopteron*, Theob., Tijd. v. Ent. LIV, 239 (1911). Sylhet [Hall]; Saugar; Manipur, viii [Gourlav]; Manipur Haut, ii, v, vi; Calcutta, vii, viii; Purnea and Rajmahal, Bengal; Selangor; Perak; Thayetmo, Upper Burma, viii; Ceylon [Green]; Kuala Lumpur [Leicester]; Sungei Penoh, Korinchi Valley, Sumatra, 2,700 ft.; Siolak-Daras, 3,100 ft., Sumatra, viii-14 [both *t. Stanton*]; Philippine Is. [*t. Ludlow*].  
*Types*: *brevicellulus*, in British Museum; *pygmaeus*, ♂ ♀, in Indian Museum (*cotype* in British Museum); *acer*, Theob. (nec Walk.), in Brit. Mus.; *fuscopteron*, in Amsterdam Museum.
- annulatus** Leices., Culic. Malaya, 174, ♀ (*Mansonia*), (1908)  
 Brun., Rec. Ind. Mus. IV, 482.  
 Kuala Lumpur. *Type* in Leicester's collection.
- aureosquammatus** Ludl., Can. Ent. XLI, 234, ♀ (1909).  
 Theob., Monog. Culic. V, 425 (*aureosquamata*, *lapsus*?).  
*Taeniorhynchus pagei*, Ludl., Psyche XVIII, 128: Theob., Monog. Culic. V, 618.  
 Parang, Mindanao, Philippine Is., 27-x—xii. *Types* of *aureosquammatus* and *pagei* in Army Medical Museum, Washington.
- chrysogona** Knab., Ent. News. Phil. XX, 386, ♂ ♀ (*Mansonia*), (1909).  
 Brun., Rec. Ind. Mus. IV, 482.  
*Chrysoconops aurites*, Ludl. (nec Theob.).  
 Parang, Mindanao, Philippine I., 31-v-06. *Type* in U.S. Nat. Museum, cat. no. 12,626.
- nigrosignatus** Edw., Bull. Ent. Res. VII, 224, nom. nov. for *conopas*, Theob. nec. Fraunfld. (1916—17).  
*Taeniorhynchus conopas*, Theob., Monog. Culic. I, 202.  
 nec *Culex conopas*, Frnfld.  
 ? *Pseudotaeniorhynchus conopas*, var. *giblini*, Taylor, Tr. Ent. Soc. Lond., p. 198, ♀ (1914).  
 Lake Kamu Gold Field, Papua [Dr. Giblin]. *Type* in Australian Institute of Tropical Medicine. Edwards considers *giblini* sufficiently distinct to warrant ranking it as a good species.

#### Mansonioides, Theob.

Monog. Culic. IV, 498 (1907).

Theob., *loc. cit.*, V 452, tab. spp.: Brun., Rec. Ind. Mus. IV, 483, X, 64: Edw., Bull. Ent. Res. II, 253.

GENOTYPE, *M guttata* Theob., by original designation.

**uniformis** Theob., Monog. Culic. II, 180, ♀; pl. xxx, 118, full ins. col., ♀ (*Panoplites*), (1901).

*Mansonia uniformis*, *id.*, *loc. cit.*, III, 270, fig. 144, pupa: Blanch., Moust., 379, ♀: Brun., Rec. Ind. Mus. I, 359; IV, 483: Leices., Culic. Malaya, 171, ♂ ♀: Edw., Bull. Ent. Res. II, 254.

*Panoplites uniformis*, Giles, Handbk., 2nd ed., 353; pl. xiii, 3 a-d, ♂, head and venation ♂ ♀ (1902).

*Panoplites africanus*, var. *reversus*, Theob., Monog. Culic. II, 189 (1901).

nec *P. africanus*, typical form, Theob., *loc. cit.*, 187.

*Panoplites australiensis*, Theob. in Giles, Handbk., 2nd ed., 355 (1902).

? *Mansonia seguini*, Laveran, Comp. Rend. Soc. Biol. Paris LIII, 992 (*Panoplites*), (1901): Blanch., Moust., 380, ♀: Theob., Monog. Culic. IV, 496: Brun., Rec. Ind. Mus. IV, 482.

Sylhet, i, ii, iii, v, vi, vii, xii [*Hall*]; Manipur, vi, ix; Shahjahanpur, N.W. India, x [*Giles*]; Bhogaon, 30-ix-08 and x; Katihar, x [both Bengal and *Paiva*]; Balighai, near Puri, Orissa, 23-x-08; Gopkuda I., Chilka Lake, viii, Calcutta, 2-vii-07; Travancore and Cochin States, 19-xi-08, 4-xi-08 [all *Annandale*]; Quilon, 7-iv-00 [*James*]; Taiping [*Wray*]; Dilo, Friedrich Wilhelmshafen and Ins. Graget (all Papua) [*Biro*]; Bayembang Pangasinan, Philippine Is. [*Chamberlain*]; Manila; Rizal; Fort McKinley [*Banks, Schultze, Craig, Araneta*]; Rangoon, 25-ii-08 [*Annandale*]; Kuala Lumpur [*Leicester*]. Type of *uniformis* in British Museum.

According to Edwards' latest investigations, *africanus*, Theob., typical form, is a valid species, with *Mansonia major*, Theob. and *Mansonia nigerrima*, Theob., as synonyms, the species not being oriental; but *africanus*, var. *reversus* is synonymous with *uniformis*.

**annulifera** Theob., Monog. Culic. II, 183, ♀ (*Panoplites*), fig. 224, wing; pl. xxx, 120, ♀, full ins. coll. (1901).

*Panoplites annulifera*, Giles, Handbk., 2nd ed., 356, ♀; pl. xiii, 8, hind leg.

*Mansonia annulifera*, Theob., Monog. Culic. III, 274: Blanch., Moust., 380, ♀: Leices., Culic. Malaya, 174, ♀ (Theob's desc. copied): Brun., Rec. Ind. Mus. I, 359; IV, 482.

*Mansonioides annuliferus*, Edw., Bull. Ent. Res. IV, 230.

*Mansonia 7-punctata*, Theob., Ann. Mus. Hung. III, 187 (1905).

*Id.*, Monog. Culic. IV, 494, ♀

*Mansonioides 7-guttata*, Theob., Monog. Culic. IV, 499, ♀; figs. 226, 227, wings, ♀ (1907).

Calcutta, viii, xii; Port Canning, xii [*Annandale*]; Purneah, x, Bhogaon, 7-viii-09 [both Bengal and *Paiva*]; Bengal [*Macrae*]; Dacca; Sylhet, v, vi [*Hall*]; Manipur [*Gourlay*]; Madras, 12-xii-99 [*Goodrich*], Quilon [*James*]; Ceylon [*t. Banks*];

Singapore [*Durham*]; Perak [*Wright*]; Sarawak [*Barker*]; Friedrich Wilhelmshafen, Papua, xi, 10 [*Biro*]; Bayembang (Pangasinan, Philippine Is.) [*Chamberlain*]; Manila [*Banks*].

*Type* of *annulifera* and *7-guttata* in British Museum that of *7-punctata* in Hungarian Museum.

### Culiciomyia, Theob.

Monog. Culic. IV, 227 (1907).

Theob., *loc. cit.*, V, 229, tab. spp.: Brun., Rec. Ind. Mus. IV, 456; X, 58: Edw., Bull. Ent. Res. IV, 234.

GENOTYPE, *C. inornata* Theob., by my own designation.

*Neomelanoconion*, Theob., Monog. Culic. IV, 514 (1907), ♂ only (*t.* Edw., Bull. Ent. Res. II, 254).

GENOTYPE, *Culex rima* Theob., by original designation.

*Pectinopalpus*, Theob., Ann. Mag. Nat. Hist. (8) V, 375 (1910).

GENOTYPE, *P. fuscus* Theob., by original designation.

*Trichorhynchus*, Theob., Jour. Bomb. Nat. Hist. Soc. XVI, 241 (1905): Theob., Monog. Culic. IV, 270: Brun., Rec. Ind. Mus. I, 356, X, 73.

*Trichorhynchomyia*, Brun., Rec. Ind. Mus. IV, 477, *nom. nov.* for *Trichorhynchus*, Theob., preocc. Balbiani 1887 in Protozoa: Brun., *loc. cit.*, X, 73.

**viridiventer** Giles, Jour. Bomb. Nat. Hist. Soc. XIII, 609 (*Culex*, provis. descr.), (1901).

*Culex viridiventer*, Theob., Monog. Culic. II, 128, ♂ ♀, fig. 219, claws, ♂ ♀, abdom. segments, wing scales; ♂ palpus and proboscis, fig. 220, larva; pl. xxix, 116, ♀, full ins. col.: Giles, Handbk., etc., 2nd ed., 445, ♂ ♀; pl. xvii, 12, ♂ claw, venation, abdomen, larva: Blanch., Moust., 346, ♂ ♀: Brun., Rec. Ind. Mus. I, 354: Edw., Bull. Ent. Res. IV, 235.

*Culex angulatus*, Theob., Monog. Culic. II, 324, ♀ (1901).  
Blanch., Moust., 362, ♀

*Culex longifurcatus*, Theob. (nec Becker), Rec. Ind. Mus. IV, 19, ♂ ♀ (1910).

*Culex pseudolongifurcatus*, Theob. (*nom. nov.* for *C. longifurcatus*, preocc. by Becker), Monog. Culic. V, 366 (1910).

Naini Tal, 4000 ft., vi; 7000 ft., vi, vii [both Giles]; Katmandu, Nepal, Dahawanga Hill, Bengal, Nepalese Frontier, 16-ii-08. *Types* of *viridiventer*, *angulatus* and *longifurcatus* in British Museum; that of *pseudolongifurcatus* in Indian Museum.

**pallidothorax** Theob., Jour. Econ. Biol. I, 32 (*Culex*), (1905).

Theob., Monog. Culic. IV, 446, ♂ ♀ (*pallidothorax* emend.).

Edw., Bull. Ent. Res. IV, 235.

*Culex albopleura*, Theob., Monog. Culic. IV, 456, ♀ (1907).

- Culiciomyia annuloabdominalis*, Theob., Monog. Culic. V, 236, ♂ ♀, fig. 102, occiput, 103, head (1910).  
India [James, Christophers]; Peradeniya, ii-07 and Hakgala, Ceylon, v-07 [both Green]. Types of *pallidothorax*, *albopleura* and *annuloabdominalis* in British Museum.
- pulla** Theob., Ann. Mus. Hung. III, 87, ♀, fig. 6, head (*Culex pullus*), (1905).  
Theob., Monog. Culic. IV, 232, fig. 66, head scales.  
Muina, Papua, 1900 [Biro]. Type, unique, in Hungarian Museum.
- fusca** Theob., Jour. Bomb. Nat. Hist. Soc. XVI, 242, ♀; pl. A. 2, head, palpus, clypeus, antenna, scutellum (*Trichorhynchus fuscus*), (1905).  
*Culiciomyia fusca*, Edw., Bull. Ent. Res. IV, 235.  
*Trichorhynchus fuscus*, Theob., Monog. Culic. IV, 270, ♀: Edw., Bull. Ent. Res. III, 33; IV, 235.  
*Trichorhynchomyia fuscus*, Brun., Rec. Ind. Mus. IV, 477.  
*Culiciomyia inornata*, Theob., Monog. Culic. IV, 227, ♂ ♀, fig. 61, head scales; 62, wing, ♀; 63, ♂ genitals (1907).  
Peradeniya, xii [Green]; Kuching, xi [Barker]; Philippines [t. Ludlow]. Type: Theobald wrote me that it was in the Hungarian Museum, subsequently (Monog. V), stating it to be in the British Museum; that of *inornata* is there.
- annulata** Theob., Monog. Culic. IV, 230, ♂ ♀, fig. 64, wing, ♀; 65, ♂ genitalia; pl. i wing scales, ♀ (1907).  
Brun., Rec. Ind. Mus. IV 457.  
Kuching, Sarawak [Barker]; Philippines [t. Ludlow].  
Type in British Museum.
- ceylonica** Theob., Monog. Culic. V, 236, ♂ ♀, fig. 70, wing, ♀ (1907).  
Peradeniya, ii-07, Maskeliya, Ceylon, iv-07 [both Green].  
Types in British Museum, a unique pair.
- bahri** Edw., Bull. Ent. Res. V, 79, ♂ ♀ (1910).  
Badulla, Ceylon; a series bred from larvae, 3 ♂ ♂, including type, and 4 ♀ ♀ in British Museum; cotypes in London School of Tropical Medicine; Hakgala, Ceylon; Peradeniya [Green].  
Type in British Museum.
- spathifurca** Edw., Bull. Ent. Res. V, 284, ♂ (1914-15).  
Kuching, Sarawak, 22-vii-14, in house [Moulton]; a ♀ from Kuching reservoir, 30-vii-14, may be this species. Type in British Museum.

#### **Lophoceratomyia**, Theob.<sup>1</sup>

Ann. Mus. Hung., III, 93 (1905).

Theob., Jour. Bomb. Nat. Hist. Soc. XVI, 245:

*id.*, Monog. Culic. IV, 471 (generic notes):

Leices., Culic. Malaya, 119.

<sup>1</sup> In Edwards' latest paper he ranks this as a subgenus only of *Culex*, and gives a table of oriental species.



GENOTYPE, *L. fraudatrix* Theob., by my own designation (Rec. Ind. Mus. X, 64)

*Philodendromyia*, Theob., Monog. Culic. IV, 623 (1907).

GENOTYPE, *P. barkerii* Theob., the original species.

*Oculeomyia*, pt. Theob., *loc. cit.*, IV, 515 (1907).

GENOTYPE, *O. sarawaki* Theob., the original species.

**uniformis** Theob., Ann. Mus. Hung. III, 93, ♂ ♀; pl. A, 3, antenna, ♂; pl. B, 4, palpus (1905).

*Id.*, Jour. Bomb. Nat. Hist. Soc. XVI, 245: *id.*, Monog. Culic. IV, 473, ♂ ♀: Edw., Bull. Ent. Res. V, 80; VII, 227.

Peradeniya, v [Green]. *Type* in British Museum.

**fraudatrix** Theob., Ann. Mus. Hung. III, 94, ♂ ♀, fig. 7, palpus ♂ ♀, 8, antennal organs (1905).

*Id.*, Monog. Culic. IV, 474, ♂ ♀, fig. 208—211, var. chars.: Edw., Bull. Ent. Res. IV, 235.

var. **variata** Leices., Culic. Malaya, 121, ♂ ♀ (1908).

Friedrich Wilhelmshafen and Stephansort [both Papua and *Biro*]; Malay Peninsula. *Type* of *fraudatrix* in Hungarian Museum; of *variata* in Leicester coll.

**brevipalpis** Theob., Ann. Mus. Hung. III, 96, ♂, fig. 9, var. chars. (1905).

*Id.*, Monog. Culic. IV, 477, ♂, fig. 12, var. chars.: Leices., Culic. Malaya, 129 (Theob. descr. copied): Edw., Bull. Ent. Res. IV, 236.

*eminentia*, Leices., Culic. Malaya, 131, ♂ (1908).

Singapore [*Biro*], Kuala Lumpur. *Type* of *brevipalpus* in Hungarian Museum; of *eminentia* in Leicester collection.

Edwards suggests the use of the name *eminentia*, Leices. instead of the earlier *brevipalpus*, to avoid confusion with *Culex* (*Cyathomyia*) *brevipalpis*, Giles, but this does not appear to me to be legitimate.

**minutissima** Theob., Monog. Culic. IV, 135, ♀ (*Culiciomyia*), (1907).

*Lophoceratomyia minutissima*, Edw., Bull. Ent. Res. IV, 235.

*Culiciomyia nigerrima*, Theob., Monog. Culic. V, 233, ♀, fig. 100, wing (1910).

*Melanoconion juxtapallidiceps*, *id.*, *loc. cit.*, V, 456, ♀ (1910).

Peradeniya, ii [Green]; Trincomalee, x, 1907 [Green].

*Types*: all three in the British Museum.

**barkeri** Theob., Monog. Culic. IV, 623, ♂, fig. 289, head, scutellum, palpus, ♂; fig. 290, wing, ♂; pl. vii, wing scales, ♀ (*Philodendromyia*), (1907).

Brun., Rec. Ind. Mus. IV, 503: Edw., Bull. Ent. Res. IV, 236; VII, 227.

- sylvestris*, Leices., Culic. Malaya, 125, ♂ ♀ (1908): Brun., Rec. Ind. Mus. IV, 465.
- quadripalpis*, Edw., Bull. Ent. Res. V, 80, ♂ (1914).  
Sarawak, vii [Barker]; Malaysia. *Types* of *barkeri* and *quadripalpis* in British Museum; *paratypes* in Cambridge Museum.
- rubithoracis** Leices., Culic. Malaya, 119, ♂ ♀ (1908).  
Brun., Rec. Ind. Mus. IV, 464: Edw., Bull. Ent. Res. IV, 236.  
*Oculeomyia fulleri*, Ludl., Can. Ent. XLI, 97, ♀ (*Oculiomyia*), (1909): Theob., Monog. Culic. V, 478, ♀ (Ludl. descr. copied): Brun., Rec. Ind. Mus. IV, 485.  
? *Lophoceratomyia niger*, Leices., Culic. Malaya, 123 (1908).  
Kuala Lumpur; Parang; Mindanao, Philippines, x. *Type* of *rubithoracis* in Leicester's collection; of *fulleri* in Army Medical Museum, Washington.
- nigra** Leices., Culic. Malaya, 123, ♂ ♀ (*niger*), (1908).  
Brun., Rec. Ind. Mus. IV, 464.  
Kuala Lumpur. *Types* in Leicester collection.  
Edwards notes that if *Lophoceratomyia* be considered only a subgenus of *Culex* the name *nigra* is preoccupied, but thinks Leicester's species is probably synonymous with *rubithoracis*.
- minor** Leices., Culic. Malaya, 126, ♂ ♀ (1908).  
Brun., Rec. Ind. Mus. IV, 464: Edw., Bull. Ent. Res. VII, 227.  
Malaysia. *Type* in Leicester collection.  
It is possible, as Edwards notes, that this name may be antedated by *Culex minor*, Theobald, Oct. 1908.
- taeniata** Leices., Culic. Malaya, 127, ♂ ♀ (1908).  
Brun., Rec. Ind. Mus. IV, 465.  
Kuala Lumpur; Klang. *Type* in Leicester collection.  
See note under *nigra*, the same argument applying here, *taeniata* possibly being synonymous with some other species (Edwards here repeating the name *taeniata*, apparently in error for some other).
- mammilifer** Leices., Culic. Malaya, 128, ♂ ♀ (1908).  
Brun., Rec. Ind. Mus. IV, 464: Edw., Bull. Ent. Res. IV, 236.  
*bicornuta*, Theob., Rec. Ind. Mus. IV, 25, ♂ (1910).  
*Id.*, Monog. Culic. V, 412, ♂, figs. 178—182, var. chars.:  
Brun., Rec. Ind. Mus. IV, 463.  
Kuala Lumpur; Raub (Malaysia); Kawkareik, base of Dawna Hills, 4-iii-08 [Annandale]. *Type* of *mammilifer* in Leicester coll.; of *bicornuta* a dissected ♂ in the Indian Museum.
- hewitti** Edw., Bull. Ent. Res. V, 80, ♂ ♀ (1914).  
Matang, Sarawak [Hewitt]. *Type* in British Museum; *paratypes* in Cambridge Museum.
- curtipalpis** Edw., Bull. Ent. Res. V, 127, ♂ (1914—15).  
Kuching reservoir, Sarawak, 6-iii-14 [Moulton]. *Type* in British Museum.

**Culex**, Linn.

Syst. Ent., Ed. X, 602 (1758).

Sch., Fauna Austr. II, 625: Giles, Handbk., etc., 186; 2nd ed., 386: Theob., Monog. Culic. I, 326; IV, 387; V, 323, tab. spp.: *id.*, Gen. Ins., Fasc. 26, 24; 25, list spp. world: Blanch., Moust., 267, 269, tab. spp. in 9 sections; 627, supp. tab.; 372, list of uncertain species: Leices., Culic. Malaya, 138, tab. of groups: Brun., Rec. Ind. Mus. I, 342; IV, 465; X, 39, *Culex* group of genera; 42, subgenera; 43, synonyms: Alcock, Ent. Med. Off., 98: How., Dyar and Knab, Mosq. N. Amer., etc., III, pt. 1, 215, list synonyms; 217, chars.

GENOTYPE, *Culex pipiens* L., by universal acceptance.

*Lutzia*, Theob., Monog. Culic. III, 155 (1903).<sup>1</sup>

How., Dyar and Knab, Mosq. N. Amer., etc., III, 466.

GENOTYPE, *Culex bigotii* Bell, by original designation.

*Melanoconops*, Theob., Monog. Culic. III, 178, *nom. nud.* (1903).<sup>2</sup>

*Lasioconops*, Theob., *loc. cit.*, III, 235 (1903).

GENOTYPE, *L. poicilipes*, *id.*, sp. nov., *loc. cit.*

*Melanoconion*, Theob., Monog. Culic. III, 238 (1903).

Theob., *loc. cit.*, IV, 507; V, 455, tab. spp.: *id.*, Gen. Ins., Fasc. 26, 32: Blanch., Moust., 395 (*Melanoconium*, emend.): Glen Herrick, Ent. News., 382: Leices., Culic. Malaya, 136: Brun., Rec. Ind. Mus. I, 360; IV, 484; X, 65.

GENOTYPE, *Culex atratus* Theob., by Dyar's designation.

*Heptaphlebomyia*, Theob., Monog. Culic. III, 336 (1903).

Theob., *loc. cit.*, IV, 531, V, 481: Gen. Ins., Fasc. 26, 41: *id.*, Entom. XXX, 156.

GENOTYPE, *H. simplex* Theob., sp. nov., *loc. cit.*

*Culicella*, Felt., N. Yk. State Mus. Bull. 79: Ent. 22, App., p. 391c (1904).

How., Dyar and Knab, Mosq. N. Amer., etc., III, 457 (as subgenus).

GENOTYPE, *Culex dyari* Coq., by original designation.

*Pseudoheptaphlebomyia*, Ventrillon, Bull. Mus. Paris XI, 427, *nom. nud.* (1905).

GENOTYPE, *P. madagascarensis* Ventr.

*Neoculex*, *id.*, *loc. cit.*, VII, 47 (1905).

GENOTYPE, *Culex territans* Walk., by original designation.

<sup>1</sup> *Lutzia* is ranked as a valid genus by Howard, Dyar and Knab, with a suggestion (p. 218), that it might be a subgenus of *Culex*, the same opinion applying to *Carrollia* also.

<sup>2</sup> The name merely used in the text and not set up as a new genus even as a *nom. nud.*

- Gnophodeomyia*, Theob., Jour. Econ. Biol. I, No. 1, 21 (1905):  
*Id.*, Monog. Culic. IV, 251.  
 GENOTYPE, *G. inornata*, sp. nov., *loc. cit.*
- Trichopronomyia*, Theob., Ann. Mus. Hung. III, 98 (1905).  
 Theob., Monog. Culic. IV, 479: Brun., Rec. Ind. Mus.  
 I, 356; IV, 477; X, 73.  
 GENOTYPE, *T. annulata*, sp. nov., *loc. cit.*
- Melanoconium*, Blanch., Moust., 395 (*Melanoconion*, emend.),  
 (1905).
- Popea*, Ludl., Can. Ent. XXXVII, 95 (1905).  
 Theob., Monog. Culic. IV, 211: Brun., Rec. Ind. Mus.  
 IV, 485; X, 69.  
 GENOTYPE, *P. lutea*, sp. nov., *loc. cit.*
- Mochlostyrax*, Dyar and Knab, Jour. N. Yk. Ent. Soc. XIV,  
 223 (1906).  
 GENOTYPE, *M. caudelli* Dyar and Knab, by original designation.
- Jamesia*, Chris., Sci. Mem. Med. Off. India (n. s.) XXV, 12  
 (1906)  
 No definite type species quoted. *Culex concolor*, Rob.  
 Desv. and *C. nigripes*, Zeit. are quoted as belonging to  
 it.
- Tinolestes*, Coq., Proc. Ent. Soc. Wash. VII, 185 (1906).  
 GENOTYPE, *T. latisquama*, *id.*, sp. nov., *loc. cit.*
- Maillotia*, Theob., Monog. Culic. IV, 274 (1907).  
 GENOTYPE, *M. pilifera*, *id.*, sp. nov., *loc. cit.*
- Aporoculex*, *id.*, *loc. cit.*, 316 (1907).  
 GENOTYPE, *A. punctipes*, *id.*, sp. nov., *loc. cit.*
- Leucomyia*, *id.*, *loc. cit.*, 372; pl. ix, ♂ genitalia (1907).  
*Id.*, *loc. cit.*; V, 311, tab. spp.  
 GENOTYPE, *Culex gelidus* Theob., by original designation.
- Microculex*, *id.*, *loc. cit.*, IV, 461 (1907).  
 GENOTYPE, *M. argenteoumbrosus*, *id.*, sp. nov., *loc. cit.*
- Neomelanoconion*, *id.*, *loc. cit.*, IV, 514, ♀ only (1907).<sup>1</sup>  
 GENOTYPE, *Culex rima* Theob., by original designation.
- Pneumaculex*, Theob., Monog. Culic. IV, 523 (1907).  
 Dyar, Proc. Ent. Soc. Wash. VII, No. 1, *nom. nud.*  
 GENOTYPE, *Culex signifer*, Coq.  
 Dyar's reference was a *nom. nud.*, and the genus must  
 stand to Theobald.
- Aedinus*, Lutz in Peryassu, Os. Culic. do Bras., 36 (1908).  
 GENOTYPE, *A. amazonensis*, sp. nov., *loc. cit.*
- Gnophodromyia*, Theob., Monog. Culic. V, 114 (1910).  
 Apparently a nomen nudum figuring only in a table of  
 genera, probably a misprint for *Gnophodeomyia*.

<sup>1</sup> Howard, Dyar and Knab say that Newstead, Dutton and Todd used this name previously (Ann. Trop. Med. Paras. I, 31, 1907), with *N. palpus*, sp. nov., as genotype. Edwards ranks the ♂ of *Neomelanoconion*, as synonymous with *Culiciomyia*.

*Rachisoura*, Theob., *loc. cit.*, V, 207 (1910).

GENOTYPE, *R. sylvestris*, sp. nov., *loc. cit.*

*Mimeteomyia*, *id.*, *loc. cit.*, V, 210 (1910).

GENOTYPE, *E. apicotriangulata*, sp. nov., *loc. cit.*

*Eumelanomyia*, *id.*, *loc. cit.*, V, 240 (1910).

GENOTYPE, *E. inconspicua*, sp. nov., *loc. cit.*

*Protomelanoconion*, *id.*, *loc. cit.*, V, 462 (1910).

GENOTYPE, *P. fusca*, sp. nov., *loc. cit.*

*Thomasina*, Newstead and Carter, Ann. Trop. Med. Paras. IV, 553, fig. 1, head, ♂ (1910—11).

GENOTYPE, *Mansonia longipalpis* Newst. and Carter, by original designation.

*Diceromyia*, Theob., 4th Rep. Wellc. Lab., Vol. B, 151 (1911).

GENOTYPE, *D. africana*, *id.*, sp. nov., *loc. cit.*

*Theobaldiomyia*, Brun., Rec. Ind. Mus. IV, 462; nom. nov. for *Leucomyia*, Theob., preocc. Braur and Berg., 1892 in Sarcophaginae.

Brun., Rec. Ind. Mus. X, 72 (1912).

*Climacura*, Howard, Dyar and Knab, Mosq. N. Amer., etc., III, 452 (1915).

GENOTYPE, *Culex melanurus* Coq., by original designation. Ranked as a subgenus by the authors.

Of the synonyms of *Culex* as given by me in my recent "Critical Review," 16 (not counting my *nomina novae*) are accepted as such by Messrs. Howard, Dyar and Knab, whilst 31 others are considered synonymous with *Aedes*, with which they include *Ochlerotatus*, as understood by Edwards, two or three of the remainder of my *Culex* synonyms being split up between *Culex* and *Aedes*.

**cantans** Mg., Syst. Besch. I, 6, ♀ (1818).

*Culex stimulans*, Walk., List Dipt. Brit. Mus. I, 4, ♀ (1848).

*C. fumipennis*, Steph., Zool. Jour. I, 453 (1825).

Coonoor, 6,000 ft.; Madras; North India [Dr. Price]. Types in Paris Museum, two specimens.

**concolor** R. Desv., Mem. So. Hist. Nat. Paris IV, 405 (1825).

Theob., Monog. Culic. II, 107, ♂ ♀, fig. 203, ♂ palpus; pl. xxviii, 109 ♂, 110 ♀ both full ins. col.: Giles, Jour. Trop. Med. VII, 368: *id.*, Handb., 2nd ed., 454, ♂ ♀; pl. xvii, 8, a, b, venation, ♂ ♀: Blanch., Moust., 365, ♂ ♀: Leices., Culic. Malaya, 154, ♂ ♀: Brun., Rec. Ind. Mus. I, 343; IV, 468, notes.

Practically common throughout India in the summer and many parts of the East, occurring in some places during the greater part of the year, Calcutta for instance. Outside of India it is found in Sylhet, ii, iv, v, xi, xii [Lt.-Col. Hall]; Upper Burma in August [Watson]; Selangor, 28-x-99 [Butler]; Kuala Lumpur [Durham]; Perak [Wray and Wright]; Samarang [Jacobson]; Phrapatoon, Siam, viii-06 [Woolley]; Pampanga, Phil. Is. [Whit-

*more*]; Hongkong; Foo Chow (China), Andaman Is. [*Ray White*].  
Type location unknown to present author.

**fuscanus** W., Auss. Zweifl. I, 6 (1828).

Giles, Handbk., etc., 301: Theob., Monog. Culic. II, 167: *id.*, Gen. Ins. Fasc. 26, 30 (quotation incorrect): Giles, Handbk., etc., 2nd ed., 455: Blanch., Moust., 275: Brun., Rec. Ind. Mus. I, 345.

East India; Singapore; Malacca; Sarawak. Type (no sex stated), location unstated.

Much doubt attaches to this species (*vide* Brun., Rec. Ind. Mus. I, 345).

**fatigans** Wied., Auss. Zweifl. I, 10, ♂ ♀ (1828).

Giles, Handbk., 298, 2nd ed., 438; Theob., Monog. Culic. II, 151, ♂ ♀, fig. 234, ♂, wing; fig. 235, ♂ genitalia; fig. 236, wings, map of distribution, p. 155; pl. xxix, 114, ♂, 115, ♀ (both full ins. col.); pl. D, wing scales: list. vars. and locs., p. 156, *et. seq.*; fig. 238, ten variations of wings: Theob., Gen. Ins. Fasc. 26; pl. ii, 2, ♀ (full ins. col.): Giles, Handbk., 2nd ed., 438, ♂ ♀, fig. 45 (var. chars.); list of subspecies, p. 440: Theob., Monog. Culic. IV, pl. xvi, larval characters: Blanch., Moust., 353, ♂ ♀, fig. 230, ♂ ♀ (as *pungens*); 231, ♀; 232, head, ♂ ♀ (as *anxifer*), 233, adult larva, nymph (*pungens*), 234, head of larva (*pungens*): Leices., Culic. Malaya, 157, ♂ ♀: Brun., Rec. Ind. Mus. I, 344; IV, 468.

*Culex aestuans*, Wied., Auss. Zweifl. I, 11 (1828).

*Culex pallipes*, Mg, Syst. Besch. VII, 1 (1838).

*Culex anxifer*, Coquerel, in Big., Ann. So. Ent. Fr. (1858).

*Culex skusii*, Giles, Handbk., 1st ed., 292 (1900).

*Heteronycha dolosa*, Arrib., Dipt. Argent., 56 (1891). [(1901).

*Culex panalectoris*, Giles, Jour. Bomb. N.H. Soc. XIII, 608

*Armigeres panalectoros*, *id.*, Handbk., etc., 2nd ed., 386.

*Desvoidea panalectros*, *id.*, t. Theob., Rec. Ind. Mus. IV, 5.

*Desvoidya panalectros*, Blanch., Moust., 266, ♂

*Blanchardiomyia panalectros*, Brun., Rec. Ind. Mus. IV, 442.

*Culex quasipipiens*, Theob., Monog. Culic. II, 136, ♀; fig. 223, head, wing, veins (1901): Giles, Handbk., 2nd ed., 438: Blanch., Moust., 344, ♀: Brun., Rec. Ind. Mus. I, 351.

*Culex fochowensis*, Theob., Monog. Culic. II, 137, ♂ ♀, figs. 224, 225, var. chars. (1901): Blanch., Moust., 344, ♂ ♀ (*fouchowensis*): Brun., Rec. Ind. Mus. I, 345.

*Culex reesii*, Theob., Monog. Culic. II, 145, ♂ ♀, fig. 232, palpus ♂, thorax ♀, claws ♂ (1901): Giles, Handbk., 2nd ed., 449, ♂ ♀: Blanch., Moust., 361, ♂ ♀: Brun., Rec. Ind. Mus. I, 351.

*Culex sericeus*, Theob., Monog. Culic. II, 147, ♀, fig. 233, var. chars. (1901): Giles, Handbk., 2nd ed., 452, ♀: Blanch., Moust., 362, ♀: Brun., Rec. Ind. Mus. I, 352; IV, 475.

*Culex christophersi*, Theob., Monog. Culic. IV, 453, ♂ ♀ (1907).

*Culex osakensis*, Theob., Monog. Culic. IV, 439, ♂ only (1907).

*Culex 5-fasciatus*, Dyar and Knab (? *nec* Say), Proc. Ent. Soc. Wash. XI, 34 (1909).

*Culex goughii*, Theob., U.S. Afr. Dep. Agric., 1st Rep. Vet. Res. 268, ♂ only (1911).

subspecies *luteoannulatus* Theob., Monog. Culic. II, 159 (1901).

? *Culex pungens*, Wied., Auss. Zweifl. I, 9 (1828).

? *Culex macleayi*, Skuse, Pr. Linn. Soc. N.S. Wales, p. 1745 (1896).

The most widely distributed species in the Orient. Records of its occurrence during every month can be found amongst Indian localities. Ceylon (Kurmregalla, Badulla, Balangoda, Keleni Valley), i, iii, xi [Green]; Nepal; Moulmein; Manipur; at sea between Calcutta and Rangoon, 22—23-ii-08 [Annandale]; Rangoon, 24-xii-04 to 3-i-05, and 9-ii-06 [Brunetti]; Dindings [Wray]; Perak [Wright]; Penang, 3—8-viii-06 [Brunetti]; Singapore, 4-xi-99 and vii [Hanitsch, Biro]; 21-vi-06 [Brunetti], Malay Peninsula, widely distributed and common near houses [Leicester]; Phrapatoon, Siam, 10—18-i; 19-iii; 30-xii-07; viii and xi-06 [Dr. Woolley]; Batavia, 27-vi; 9-vii-06 [Brunetti]; Soerabaya, 16—25-vii-96 [Brunetti]; Papua (Friedrich Wilhelmshafen and Stephansort), [Biro]; Sarawak; Hong Kong, 8-i-00; vii [Ford], Foochow [Rennie]; Shaohyling [Cornford]; Shanghai, 16—25-vii-06: swarming in ditch; Hankow, 22—26-iv-06, Manila, 10—16-iii-06 [all three Brunetti]; Seistan; E. Persia [Annandale and Kemp]. It also occurs in Japan, East Africa, Natal, Zanzibar, Mombasa, the Soudan, Egypt, British Central Africa, Senegambia, Mauritius, the Seychelles, Australia, Fiji and the Southern part of N. America, Central and S. America, and the West Indies. *Types* of *fatigans*, *aestuans* and *pungens* in Wiedemann coll.; of *macleayi* in Sydney Museum; of *panalectros* in British Museum. No type specimen set up of *skusei*; a typical specimen in British Museum.

*sitiens* Wied. Auss. Zweifl. I, 542, ♀ (1828).

Edws., Bull. Ent. Res. IV, 232.

*Culex impellens*, Walk. (*nec* Theob.), Proc. Linn. So. Lond. IV, 91, ♀ (1860).

*C. annulirostris*, Skuse, Proc. Linn. So. N.S. Wales (2) III, 1737 (1889).

*C. microannulatus*, Theob., Monog. Culic. I, 353, ♂ ♀; pl. xviii, 69, ♀, full ins. col.; fig. 118 *b*, head, *d*, fore ungues ♂ (1901): Blanch., Moust., 292, ♂ ♀: Leices., Culic. Malaya, 140, ♂ ♀: Brun., Rec. Ind. Mus. I, 349, IV, 472.

*C. gnophodes*, Theob., Monog. Culic. III, 163, ♀ (1903).

Leices., Culic. Malaya, 145 (Theob., descr. copied).

*C. somaliensis*, Nev.-Lemaire, Arch. Parasit. X, 254 (1906).

*C. ronaldi*, Charm., Ann. Trop. Med. II, 259 (1908).

*C. salus* Theob., Third Rep. Wellcome Lab., 256 (1909).

Apparently a very widely distributed species throughout the East, common nearly everywhere.

Sylhet, i, ii, iv, v, xi, xii; Calcutta, July to November, common; N.W. Provinces, India, common [Giles]; Shahjahanpur, xii [Giles]; Mukerian; Hoshiarpur [Dr. Datta]; Purnea, Bengal, viii; between Bolpore and Rampore Haut, Bengal, viii; in railway carriage [Paiva]; Lake Chilka, Orissa, viii; Gopkuda I.; Trincomalee and Hakgala, Ceylon, 24-viii—, 9-ix-07, and Peradeniya [all three Green]; Singapore [Dr. Finlayson]; Dindings; Straits, xi, Makassar; Manila, Cavite and Pangasinan (all three Phil. Is.) [Banks, Stiff and Chamberlain respectively]. It also occurs in Mauritius. *Type* (*sitiens*), said to be in the Copenhagen Museum: that of *annulirostris* at Sydney Museum; of *microannulatus*, *impeltens*, *salus* and *gnophodes* in the British Museum, of *ronaldi* at the Liverpool School of Tropical Medicine.

*vagans* Wied, Auss. Zweifl. I, 545, ♀ (1828).

Theob., Monog. Culic. I, 411, ♀; fig. 146, wing, scutellum: *id.*, *loc. cit.*, IV, 14, ♂; V, 347, ♂; Giles, Handbk., etc., 279; 2nd ed., 414, ♀; pl. xvi, 14, venation ♀: *id.*, Jour. Trop. Med. VII, 368: Blanch., Moust., 304, ♀; Brun., Rec. Ind. Mus. I, 353; IV, 476.

Madras city, 31-x-08 [Hodgart]; Hongkong, x; Shanghai [Lindesay]; Pampanga [Whitmore]; Foochow [*t. Blanch.*].

*Type* in Dr. Trentepohl's collection.

*nigripes* Zett., Ins. Lapp., 807 (1838).

Ficalbi, Bull. So. Ent. Ital., 292 (1896): Theob., Monog. Culic. II, 93, ♂ ♀; fig. 194, wing, etc.; fig. 260 (p. 219), map of distribution: Brun., Rec. Ind. Mus. I, 350.

? *impiger*, Walk., List. Dipt. Brit. Mus. I, 6, ♀ (1848).

? *implacabilis*, *id.*, *loc. cit.*, I, 7, ♀ (1848).

Deosai Plateau, between Kashmir and Shardo, 13,000 ft. [Dr. Neve]. A circumpolar species. *Type* (*nigripes*) in Paris Museum.

*rubrithorax* Macq., Dipt. Exot. Supp. IV, 9, ♀ (1850).

Theob. Monog. Culic. I, 416, ♀; fig. 150, head, thorax, apex of abdomen: Giles, Handbk., etc., 2nd ed., 412, ♀: *id.*, Jour. Trop. Med. VII, 368: Skuse, Proc. Linn. So. N.S. Wales, p. 1735 (1896): Brun., Rec. Ind. Mus. I, 352.

Pampanga, Ph. Is. [Whitmore]. *Type* in Paris Museum. Described originally from Australia.

*aureostriatus* Dol., Nat., Tijd. Ned. Ind. XIV, 385, ♀; pl. vi, 1 (1857).

Giles, Handbk., 280: Theob., Monog. Culic. I, 387, ♀: Blanch., Moust., 310, ♀: Brun., Rec. Ind. Mus. I, 355; IV, 467.

Amboina. Blanchard says it occurs in Tokio. *Type*, location unknown to present author.



**longipalpis** Wulp, Mid-Sum. Dipt., 9, pl. i, 3, head (1892).

Giles, Handbk., etc., 249; 2nd ed., 423, ♀: Blanch., Moust., 318, ♀: Brun., Rec. Ind. Mus. IV, 471.

Soeroelangoen, Sumatra. *Type*, location unknown to present author.

**mimeticus** Noe, Bull. Ent. So. Ital. XXXI, 240 (1899).

Giles, Handbk., etc., 202; 2nd ed., 389; pl. xv, 16, wing, ♀; 17, palpi and proboscis ♂; 18, claws ♂: Theob., Monog. Culic. I, 329, ♀; pl. xvi, 63, ♀, full ins. col.: Blanch., Moust. 271, ♂ ♀: Leices., Culic. Malaya, 139, ♂ ♀: Brun., Rec. Ind. Mus. I, 349; IV, 472.

? *hyrcanus*, Pallas, Reisen Russ. Reich. (1871), "near Caspian Sea."

Theog., 8000 ft., 2-v-07 [*Annandale*], Punjab, 6000 ft., iii [*Lindesay*]; Canara District [*Aitken*]; Nilgiri Hills [*Giles*]; Lushai Hills, 1-vi-04 [*Macleod*]; Thaumaspur, Nepal, 18—20-ii-08; Malacca [*t. Blanch.*]; Peradeniya, 17-ix-07 [*Green*]; Kuala Lumpur [*Durham*]; Perak [*Wright*]. Occurs also in Italy, Cyprus, Macedonia and Palestine. See note under *C. mimulus*, Edw. *Type* in Rome University Museum.

**tigripes** Grandpré and Charmay, Planters Gazette Press (1900).<sup>1</sup>

Giles, Handb., 2nd ed., 407, ♂ ♀, pl. xvi, 4, wing, ♂ ♀, head ♂, thorax var.: *id.*, Jour. Trop. Med. VII, 368; Theob., Monog. Culic. III, figs. 120—122, larva, pupa, diagrams: Brun., Rec. Ind. Mus. I, 352; IV, 475; Edw., Bull. Ent. Res. II, 261.

*maculicrura*, Theob., Monog. Culic. II, 34, ♂ ♀; pl. xxii, 85, ♀, full ins. col. (1901).

Sylhet, ii, iv, v to xii [*Lt.-Col. Hall*]; Kurseong, 4-viii-08; Damukdia Ghat (Riv. Ganges, E. Bengal), vii; Calcutta, viii-08 xii, 1905; Port Canning, xii; Mandalay, 11-iii-08 [*Annandale*]; Manipur, viii [*Gourlay*]; Kirindi, 20-xi-08; Weligama, 3-i-08, Dondra, 28-iv-08, Mandulsima, 14-xii-08 (all four, Ceylon), Dindings, Straits, xii, Pampanga, Ph. Is. [*Whitmore*]. Also occurs in West Africa, Natal, Mauritius, Queensland.

*Type*, location unknown to present author. Edwards has suggested that this species may be identical with *concolor*, R. Desv.

**tritaeniorhynchus** Giles, Jour. Bomb. Nat. Hist. So. XIII, 606 (provis. descr.) (May 1901).

Giles, Entom. XXXIV, 192 (July 1901): *id.*, Handbk., 2nd ed., 401, ♂ ♀: Theob., Monog. Culic. I, 364, ♂ ♀; fig. 124, wing, ♂ ♀: Blanch., Moust., 294, ♂ ♀: Brun., Rec. Ind. Mus. I, 355; Edw., Bull. Ent. Res. IV, 233, VII, 224.

*Culex sitiens*, Theob. (*nec* Wied.), Monog. Culic. I, 360, fig. 121, wing, proboscis (Nov. 1901): Giles, Handbk., 2nd ed., 400,

<sup>1</sup> Edwards (Bull. Ent. Res. II, 261) gives as reference "Grandpré, Les Moustiques, 1900." Presumably he refers to Blanchard's work.

♀: Blanch., Moust., 293, ♀: Leices., Culic. Malaya, 143,  
♂ ♀: Brun., Rec. Ind. Mus. I, 352; IV, 475.

*Culex annulus*, Theob., Monog. Culic. I, 358, ♀ (1901).

Giles, Handbk., 2nd ed., 405, ♀: Blanch., Moust., 293, ♀:  
Leices., Culic. Malaya, 144 (copies Theob.'s descr. of ♀).

*Culex vishnui*, Theob., Monog. Culic. I, 355, ♂ only, (♀ = *vishnui*,  
Theob., *vera*), fig. 119, claws, wing tips; 120a, forms of abdo-  
men (♂ only), claws, ♂ (1901): Giles, Handbk., 2nd ed.,  
399, ♂; pl. xvi, 5a, abdomen vars., 5b, fore tarsal claws, ♂:  
Theob., Monog. Culic. IV, 387, ♂ only; fig. 163, genitalia  
♂: Blanch., Moust., 293, ♂ only: Brun., Rec. Ind. Mus. I,  
354; IV, 476.

*Culex biroi*, Theob., Ann. Mus. Hung. III, 82, ♂ ♀; pl. i, wing,  
♂ ♀: *Id.*, Monog. Culic. IV, 390, ♂ ♀; fig. 165, wing ♂;  
164, wing ♀

Sambalpur (Cent. Prov., India), 26-x-1900 [*Murphy*]; Calcutta,  
viii, ix; Bombay [*Biro*]; Madras, xi, xii [*Cornwall*]; Dacca; Tra-  
vancore, *type* [*James*]; Quilon, 27-vii-1900 and ii [*James*]; Cey-  
lon, xi; 27-xii-99 [*Bartholomew*]; Dindings (Straits), x, xi, xii;  
Malaysia; Malacca; Sumatra; Celebes [all three *t. Blanchard*];  
Tai-Po; Pokfulam; Hongkong; Lamma, Philippines [*t. Ludlow*].  
*Types of tritaeniorhynchus* and *vishnui* ♂ in British Museum; of  
*biroi* in Hungarian Museum; of *annulus* in Dr. Rees collection.

**vishnui** Theob., Monog. Culic. I, 355, ♀ only (the ♂ = *tritaenio-  
rhynchus*, Giles); figs. 119, 120 var. chars. (♀ only); pl. xvii,  
66, ♀, full ins. col. (1901).

*Id.*, *loc. cit.*, IV, fig. 162, wing ♀; pl. v, wing scales, ♀:  
Blanch., Moust., 293 (♀ only): Leices., Culic. Malaya, 141  
(♀ only): Brun., Rec. Ind. Mus. I, 354; IV, 576: Edw., Bull.  
Ent. Res. IV, 233, VII, 225.

*impellens*, Theob. (*nec* Walk.), Monog. Culic. I, 362, ♀; fig. 122,  
head; 123, wing; *loc. cit.*, IV, 15 (long list locs.): Giles,  
Handbk., 2nd ed., 399, ♀ only; pl. xvi, 3a head: Blanch.,  
Moust., 294, ♀: Leices., Culic. Malaya, 142 (Theob.'s descr.  
copied): Brun., Rec. Ind. Mus. I, 347; IV, 470.

*Culex perplexus*, Leices., Culic. Malaya, 150, ♂ ♀ (1908): Brun.,  
Rec. Ind. Mus. IV, 473.

? *C. microtaeniatus*, Theob., Tijd. v. Ent. LIV, 236 (1911).

? *C. pseudoinfula*, Theob., *loc. cit.*, p. 237 (1911).

? *C. parvus*, Taylor, Bull. N. Terr. Austral., 1a, p. 27 (1912).

Very generally distributed through the East; widely through-  
out India, as far north as Nepal and Sylhet, i, ii [*Hall*]. Out-  
side of India it is recorded as follows; Ceylon, xi and 27-xii-99  
[*Bartholomew*]; Batticalora, Ceylon, iv, [*Green*]; Moulmein, ii;  
Mandalay, 11, 12-iii-08 [*Annandale*]; Chittagong, 26-vii-08 [*Lt.-  
Col. Hall*]; Rangoon, 24-xii-04 to 3-i-05 [*Brunetti*]; Kuala Lum-  
pur, v [*Durham, Leicester*]; Perak [*Wray, Wright*]; Makassar [*t.  
Walker*]; Batavia, 27-vi-06 to 9-vii-06 [*Brunetti*]; Pampang  
[*Whitmore*]. Also taken on board ship 5 miles off Aleppey, Mala-

bar Coast, 4-v-08 [*Paiva*]. *Type* of *vishnui* ♀ and of *perplexus* ♂ ♀ in British Museum.

**annulioris** Theob., Liver. Sch. Trop. Med. Mem. V, App. (1901).

*Id.*, Monog. Culic. I, 371, ♀ (1901): Brun., Rec. Ind. Mus. IV, 466: Edw., Bull. Ent. Res. II, 259.

Phillipines. Described from a single ♀ from Mashonaland. *Type* in British Museum.

**hirsutum** Theob., Monog. Culic. I, 392, ♂ ♀; pl. xx, 80, ♀ full ins. col., fig. 137, palpus ♂, apex ♂ antenna (1901).

Brun., Rec. Ind. Mus. I, 347.

Philippines. *Types* in British Museum.

**gelidus** Theob., Monog. Culic. II, 20, ♀; pl. xxiv, 93, ♀, full ins. col.; fig. 158, thorax and hind tarsus (*Culex*) (1901).

*Culex gelidus*, Giles, Handbk., 2nd ed., 421, ♀: Blanch., Moust., 316, ♀: Brun., Rec. Ind. Mus. I, 346.

*Leucomyia gelida*, Theob., Monog. Culic. IV, 372: Leices., Culic. Malaya, 147, ♂ ♀

*Theobaldiomyia gelidus* (lapsus) Brun., Rec. Ind. Mus. IV, 462.

Calcutta, August, 6-x-04 [*Brunetti*]; Purnea, Bengal, 6-viii-07, ix, x [*Paiva*]; Dacca; Rajshahi, Bengal, 1-6-ii-07; Madras town, 30-31-x-08 [*Hodgart*]; Peradeniya, vii, ix; Maskeliya, iv; Kelani Valley [both Ceylon and *Green*]; Travancore and Cochin States, xi-08 [both *Annandale*]; Selangor [*Butler*]; Rangoon, 25-ii-08; Dindings (Straits) in November; Perak; Sarawak, xi [*Butler*]; Bayembang, Phil. Is. [*Chamberlain*].

var. **bipunctata** Theob., Monog. Culic. IV, 374, ♂ (*Leucomyia*) (1907).

India [*Major Aldrich*]; Sarawak [*Barker*].

var. **cuneata** Theob., Monog. Culic. II, 22, ♀, fig. 159, var. chars. (*Culex*) (1901).

*Culex gelidus cuneatus*, Giles, Jour. Trop. Med. VII, 368: Brun., Rec. Ind. Mus. I, 346.

Sylhet, v [*Lt.-Col. Hall*], Calcutta, July to December, common in houses, at light, in railway carriages and in the open and on plants, [*Annandale, Brunetti*]; Katihar; Bhogaon, ix, x; Purnea, viii, x [*Paiva*], near Puri, 23-x-08, at light; Madras, 23 and 30-x-08; Travancore, 5 and 19-xi-08 [*Annandale*]; Malabar, 4-xi-08 [*Annandale*]; Quilon, vii [*James*]; Ceylon [*Green*]; Tai-pang, Perak [*Wray*]; Manila [*Banks*]; Pampanga, Phil. Is. [*Whitmore*]; Pangasinan, Phil. Is.

*Type*, location unknown to present author.

**univittatus** Theob., Monog. Culic. II, 29, ♂ ♀; fig. 161, head, leg, abdomen; pl. xxii, 86, ♀, full ins. col. (1901).

Giles, Handbk., 2nd ed., 428, ♂ ♀ (*univittatus*, lapsus): Blanch., Moust., 321, ♀: Brun., Rec. Ind. Mus. I, 353.

Singapore, vii, ix [*Hainitsch*]. Occurs in Africa. *Type* in British Museum.

**quasiunivittatus** Theob., Monog. Culic. II, 32, ♀; fig. 164, head (1901).

Brun., Rec. Ind. Mus. I, 351.

Pampanga [*Whitmore*]. Described from single ♀ from Mashonaland. *Type* in British Museum.

**hirsuteron** Theob., Monog. Culic. II, 98; fig. 196, claws ♂; 197 wing, ♀ (1901).

*Id.*, Gen. Ins., Fasc. 26, 27: Giles, Handbk., 2nd ed., 451 (*hirsuteros*): *id.*, Jour. Trop. Med. VII, 368 (*hirsuteros*): Brun., Rec. Ind. Mus. I, 347.

Pampanga [*t. Banks*]. Said to occur in Virginia, U.S.A., which is doubted by Banks. *Type* in British Museum.

**tipuliformis** Theob., Monog. Culic. II, 327, ♀; fig. 306, wing, leg, abdomen (1901).

Giles, Handbk., 2nd ed., 443, ♂: Blanch., Moust., 363, ♀: Brun., Rec. Ind. Mus. I, 353.

Bakloh (N.W. India), 5000 ft., iii [*Lindesay*]. *Type* in British Museum.

**fragilis** Ludlow, Jour. N.Yk. Ent. So. XI, 142 (1903).

Theob., Monog. Culic. IV, 424, ♂ ♀

Oras (Samar, Phil. Is.), 6-viii [*t. Ludlow*]. *Type* in Army Medical Museum, Washington.

**alis** Theob., Monog. Culic. III, 167, ♂ ♀ (1903).

Philippines [*t. Ludlow*]. Also occurs on Christmas Island. *Type* in British Museum.

**sinensis** Theob., Monog. Culic. III, 180, ♀ (*C. gelidus*, var. *sinensis*) (1903).

*Culex sinensis*, Edw., Bull. Ent. Res. IV, 231.

*Leucomyia sinensis*, Theob., Monog. Culic. V, 313 (1910): *id.*, Rec. Ind. Mus. IV, 20.

*Theobaldiomyia sinensis*, Brun., Rec. Ind. Mus. IV, 463.

*Culex sepositus*, Leices., Culic. Malaya, 152, ♀ (1908).

*Taeniorhynchus tenax*, Leices. (*nec* Theob.), Culic. Malaya, 167, ♀ (1908).

Balighai, near Puri, 23-x-08, at light [*Annandale*]; Kuala Lumpur [*Leicester*]; Shaohyling, China [*Cornford*]. *Types* of *sinensis* and *tenax* in British Museum; that of *sepositus*, lost.

**halifaxi** Theob., Monog. Culic. III, 231, ♀ (1903).

*Id.*, *loc. cit.*, V, 350: Brun., Rec. Ind. Mus. IV, 470: Edw., Bull. Ent. Res. IV, 234.

*Culex multimaculosus*, Leices., Culic. Malaya, 155, ♂ ♀ (1908).

Brun., Rec. Ind. Mus. IV, 473.

Dindings, Strait Settlements, xii. *Type* of *halifaxi*, a unique ♀, in British Museum; of *multimaculosus*, in Leicester coll.

**whitmorei** Giles, Jour. Trop. Med. VII, 367 (*Taeniorhynchus*) (1904).

*Culex whitmorei*, Edw., Bull. Ent. Res. IV, 232; VII, 225.

*Taeniorhynchus whitmorei*, Theob., Monog. Culic. V, 431: Brun., Rec. Ind. Mus. IV, 480.

*Taeniorhynchus argenteus*, Ludlow, Can. Ent. XXXVII, 98, ♀ (1905): Theob., Monog. Culic. IV, 487, ♀ (copies Miss Ludlow's descr.): *loc. cit.*, V, 426, fig. 191, wing.

*Theobaldiomyia argentea*, Brun., Rec. Ind. Mus. IV, 462.

*Leucomyia plegipennis*, Theob., Monog. Culic. IV, 375 (1907).

*Culex albus*, Leices., Culic. Malaya, 148, ♀ (1908).

*Culex lorricatus*, Leices., *loc. cit.*, 151, ♀ (1908).

Angeles, Pampanga, ix [*Whitmore*]; Kuala Lumpur. *Types* of *whitmorei*, *plegipennis* and *lorricatus*, in British Museum; of *argenteus* in Army Medical Museum, Washington; of *albus* in Leicester collection.

**trimaculatus** Theob., Ann. Mus. Hung. III, 86, ♀; fig. 5, thoracic marks (1905).

*Id.*, Monog. Culic. IV, 427, ♀; fig. 187, thorax, ♀

Bombay [*Biro*]. *Type*, a unique ♀, in Hungarian Museum.

**annulatus** Theob., Ann. Mus. Hung. III, 98, ♂, fig. 10, proboscis apex, scales (*Trichopronomyia*) (1905).

*Id.*, Monog. Culic. IV, 479, ♂, fig. 213, var. chars.; 214, wing, ♂

Friedrich Wilhelmshafen, Papua [*Biro*]. *Type* in Hungarian Museum.

**ornatus** Theob., Ann. Mus. Hung. III, 100, ♀ (*Melanoconion*) (1905).

*Id.*, Monog. Culic. IV, 508, ♀; fig. 231, wing, ♀

Friedrich Wilhelmshafen, Papua, xii, 1900 [*Biro*]. *Type* in Hungarian Museum, a unique specimen.

**pallidiceps** Theob., Ann. Mus. Hung. III, 101, ♂ (*Melanoconion*) (1905).

*Id.*, Monog. Culic. IV, 509, ♂

Friedrich Wilhelmshafen, Papua, xii-1900 [*Biro*]. *Type* in Hungarian Museum.

**lutea** Ludl., Can. Ent. XXXVII, 96, ♂ (*Popea*) (1905).

*Id.*, *loc. cit.*, XLII, 193, ♀ (1910).

Pampanga, Phil. Is. [*Whitmore*]. *Type* in Army Medical Museum, Washington.

**macropus** Blanch., Comp. Rend. LIII, 1045, nom. nov. for *C. longipes*, Theob., preocc. (1905).

*Culex macropus*, Blanch., Moust., 327.

*Culex longipes*, Theob., Monog. Culic. II, 68, ♀ (1901): Giles, Handbk., 2nd ed., 468, ♀

Singapore, 4-ix-99, *type* [*Hanitsch*], and 27-vii. *Type* of *longipes* in British Museum.

**annuliferus** Ludl., Jour. N.Yk. Ent. Soc. XI, 141 (*annulifera*) (1903).

Theob., Monog. Culic. IV, 388, ♂ ♀: Brun., Rec. Ind. Mus. I, 343.

*Culex ludlowi*, Blanch., Moust., 630, nom. nov. for *annuliferus*, Ludl. preocc. Blanch., 1852: Brun., Rec. Ind. Mus. IV, 471.

Bayembang. Phil. Is. [*Chamberlain*]; Mangarin and Dagupan, ii to iv (both Phil. Is.). *Type* in Army Medical Museum, Washington.

**rizali** Banks, Phil. Jour. Sci. I, 999, ♀ (1906).

Theob., Monog. Culic. V, 391: Brun., Rec. Ind. Mus. IV, 474.

Siya Siya Mt. of Canlaon Volcano, Negros I. (Phil. Is.), vi [*Banks*]. *Type* in Entomological collection (No. 6083), Bureau of Science, Manila.

**fuscocephalus** Theob., Monog. Culic. IV, 420 ♀ (1907).

Edw., Bull. Ent. Res. IV, 234; VII, 225.

*C. taytayensis*, Banks, Phil. Jour. Sci. IV, 545, ♂ ♀ (1910).

Brun., Rec. Ind. Mus. IV, 475.

*C. luteola*, Theob., Monog. Culic. V, 378, ♀ (1910).

Brun., Rec. Ind. Mus. IV, 471.

*C. uniformis*, Leices., Culic. Malaya, 159, ♀ (1908): Brun., Rec. Ind. Mus. IV, 476.

*C. minor*, Theob., Rec. Ind. Mus. II, 298, ♂ ♀ (1901): Theob., *loc. cit.*, IV, pl. i, wing: *id.*, Monog. Culic. V, 363, ♂ ♀; fig. 150, wing: Brun., Rec. Ind. Mus. IV, 473.

Sylhet [*Hall*]; Calcutta, xii [*Annandale*]; Pallode, Travancore, 15-xi-08 [*Annandale*]; Peradeniya, iii, ix [*Green*], x, 1900; Hakgala, Ceylon, 5-xi-07 [*Green*]; Lungleh, Lushai Hills, vi, vii [*Macleod*]; Rizal, Phil. Is. [*Banks*]; Batu Gajah, Malaysia. *Type* of *fuscocephalus* and of *luteola*, in British Museum; of *taytayensis* in Bureau of Science, Manila, Cat. No. 11,459; of *minor* in Indian Museum; that of *uniformis*, probably lost, not in Leicester collection.

**nigricephalus** Leices., Culic. Malaya, 149, ♂ ♀ (*nigricephala*) (1908).

Brun., Rec. Ind. Mus. IV, 473.

Batu Gajah (Malaysia), [*Dr. Daniels*]. *Type* probably lost, not in Leicester collection.

**auratus** Leices., *loc. cit.*, 153, ♀ (1908).

Brun., Rec. Ind. Mus. IV, 467.

Malaysia. *Type* probably lost, not in Leicester's collection.

**graminis** Leices., Culic. Malaya, 158, ♂ ♀ (1908).

Brun., Rec. Ind. Mus. IV, 470.

Malaysia. *Type* probably lost, not in Leicester's collection.

**minimus** Leices., Culic. Malaya, 160, ♂ ♀ (1908).

Brun., Rec. Ind. Mus. IV, 472.

Kuala Lumpur. *Type* in Leicester collection.

- pettigrewii** Theob., Rec. Ind. Mus. IV, 15, ♀ (1910).  
Theob., Monog. Culic. V, 351, ♀  
Ukhrul, Manipur, viii-08 [*Pettigrew*].  
*Type*, a unique ♀, in Indian Museum.
- japonicus**, var. **ceylonicus** Theob., Monog. Culic. V, 391 (*ceylonica*) (1910).  
Brun., Rec. Ind. Mus. I, 348; IV, 471.  
[**C. japonicus** typical form], Theob., Monog. Culic. I, 385, ♀ (1901), and III, 158 (1903).  
Peradeniya, vi and x [*Green*], a single ♀ *Types* of *japonicus* (typical form), and of *japonicus*, var. *ceylonicus* (presumably) in British Museum. The typical form is apparently not found in the East.
- aureopunctis** Ludlow, Can. Ent. XLII, 195, ♀ (1910).  
Cottabato, Mindanao.  
*Type* in Army Medical Museum, Washington.
- argentinotus** Banks, Phil. Jour. Sci. IV, 547, ♂ ♀ (1910).  
Rizal, Phil. Is., 13-16-v-09 [*Banks*]. *Types* ♂ ♀ in Entomological collection, Cat. No. 11,460, Bureau of Science, Manila.
- palawanensis** Ludl., Psy. XXI, 30 (*Popea*) (1914).  
Palawan, Phil. Is.  
*Type*, location unknown to present author.
- mimulus** Edw., Bull. Ent. Res. V, 284 (1914-1915).  
Malay States; India; Ceylon. Edwards thinks that probably all specimens hitherto recorded from the Orient as *mimeticus*, Noe, are this species, and those in the British Museum from Hong Kong, North India, Palestine and Cyprus are true *mimeticus*.
- nilgiricus** Edw., Bull. Ent. Res. VI, 358, ♂ ♀, fig. 1, ♂ genit. pt. (1915-16).  
Utakamand (? Ootacamund), Nilgiri Hills, Madras Presid., 7500 ft., 24-31-xii-13 [*T. B. Fletcher*].  
*Types* in British Museum, presented by Agric. Instit., Pusa.

**Culex**, spp. *unrecognisable*.

- molestus** W., Dipt. Exot. I, 39 (1821).  
*Id.*, Auss. Zweifl. I, 542; Giles, Handbk., 341, 2nd ed., 470.  
? *C. filipes*, Walk.  
Sumatra. *Type* (defective) in Dr. Trentepohl's collection (Vienna Museum).
- luridus** Dol., Nat. Tijd. Ned. Ind. XIV, 384; pl. v, 1 (1857).  
Giles, Handbk., 341, 2nd ed., 469; Brun., Rec. Ind. Mus. I, 355.  
? *inflictus*, Theob., Monog. Culic. II, 115 (1901).  
Gompong, Mid-Java [*t. Doleschall*].  
*Type*, location unknown to present author.

- setulosus** Dol., Nat. Tijd. Ned. Ind. XIV, 384; pl. v, 4 (1857).  
 Giles, Handbk., 335, 2nd ed., 470: Brun., Rec. Ind. Mus. I, 355.  
 Mid-Java [*t. Doleschall*]. Type in Vienna Museum.
- filipes** Walk., Proc. Linn. So. Lond. V, 229, ♀ (1861).  
 Giles, Handbk., 343.  
 ? = *molestus*, W  
 Dorey, Papua. Type in British Museum, unrecognisable.
- ventralis** Walk. II, Proc. Linn. So. Lond. VIII, 103, ♀ (1865).  
 Brun., Rec. Ind. Mus. I, 356.  
 Papua [*t. Walker*]. The second species of this name by Walker in *Culex*; the first is synonymous with *Armigeres obturbans*, Walk. Type in British Museum.
- doleschalli** Giles, Handbk., 1st ed., 338 (1900): *nom. nov.* for *cingulatus*, Dol.  
 Brun., Rec. Ind. Mus. I, 354.  
*Culex cingulatus*, Dol., Nat. Tijd. Ned. Ind. X, 405; pl. vii, 2; preocc., Fab., 1805 for a Brazilian species.  
 Ambarawa, Java, common all the year round.  
 Type, location unknown to present author.

### Micraedes, Coq.

- Proc. Ent. Soc. Wash. VII, 185 (1906).  
 GENOTYPE, *M. bisulcatus* Coq., by original designation.
- Acalleoemyia*, Leices., Culic. Malaya, 194 (1908).  
 GENOTYPE, *A. obscura* Leices., by original designation.
- malayi** Leices., Culic. Malaya, 184, ♀ (*Aedes*) (1908).  
 Brun., Rec. Ind. Mus. IV, 490.  
*Micraedes malayi*, Edw., Bull. Ent. Res. VII, 228.  
*Aioretomyia aedes*, Leices., Culic. Malaya, 189 (1908).  
 Kuala Lumpur. Type in Leicester coll.
- obscurus** Leices., Culic. Malaya, 194, ♂ ♀ (*Acalleoemyia obscurus*) (1908).  
*Micraedes obscurus*, Edw., Bull. Ent. Res. IV, 237.  
 Malaysia. Type in Leicester coll.

### Cyathomyia, de Meij.

- Ann. Jard. Bot. Buitenzorg, Ser. 2, Supp. III, 921 (1910).  
 GENOTYPE, *C. jenseni* Meij., by original designation.
- brevipalpis** Giles, Handb., 2nd ed., 384, ♂ ♀; pl. xiv, 17—19, wings; 20, head ♂ (*Stegomyia*) (1902).  
*Culex brevipalpis*, Theob., Monog. Culic. III, 146, ♂ ♀; V, 607, App.



*Stegomyia brevipalpis*, Blanch., Moust., 264, ♂ ♀: Brun., Rec. Ind. Mus. I, 329; IV, 445.

*Cyathomyia brevipalpis*, Edw., Bull. Ent. Res. IV, 237.

*Melanoconion uniformis*, Leices., Culic. Malaya, 136, ♂ ♀: Brun., Rec. Ind. Mus. IV, 484.

Shahjahanpore (N.W. India). *Types of brevipalpis* in British Museum; of *uniformis* in Leicester coll.

### **Theobaldia**, Nev. Lemaire.

Comp. Rend. Soc. Biol. Paris LIV, 1331 (1902).

Theob., Monog. Culic. III, 148; pl. x, wing scales, var. spp.; IV, 275, note on name; V, 270, tab. spp.: *id.*, Gen., Ins. Fasc., 26, 23: Edw., Bull. Ent. Res. II, 251: Brun., Rec. Ind. Mus. I, 339; IV, 459, note; X, 72.

GENOTYPE, *Culex annulatus* Schrk.

*Theobaldinella*, Blanch., Moust., 390, nom. nov. (generic chars. given), on assumption of pre-occupation in Mollusca by *Theobaldius*, Nevike: Brun., Rec. Ind. Mus. X, 72.

*Culiseta*, Felt. N.Yk. State Mus. Bull., 79, App., 391e (1904).

GENOTYPE, *Culex absobrinus* Felt., by original designation.

*Pseudotheobaldia*, Theob., Monog. Culic. IV, 271 (1907): Brun., Rec. Ind. Mus. IV, 478: X, 70.

GENOTYPE, *P. niveitaeniata* Theob., Monog. Culic. IV, 271, sp. nov.

**annulata** Schrk., Beitr. z. Naturg., 97 (*Culex*) (1776).

*Culex annulatus*, F., Ent. Syst. IV, 400: Meig. Syst. Besch. I, 3: Macq., Hist. Nat. Dipt. I, 35: Sch., F. Austr. II, 626: Zett., Dipt. Scand. IX, 3640: Wulp., Dipt. Neerl., 325: Theob., Monog. Culic. I, 331, ♂ ♀, fig. 108, abd. segments, claws, ♂ ♀, palpus, ♂, pl. xv, 58, full ins. col.: Giles, Handbk., etc., 2nd ed., 391; pl. xv, abd. segments, claws, ♂ ♀, wing ♀, head ♂, genitalia ♂: Blanch., Moust., 280, ♂ ♀: fig. 206, claws and genitalia, 207 adult larva.

*Theobaldia annulata*, Theob., Gen. Ins. Fasc. 26; pl. i, 12, ♀ full ins. col.: Brun., Rec. Ind. Mus. I, 339; IV, 459.

*Culex variegatus*, Schrk., Enum. Ins. Austr., 482 (1781).

*Culex affinis*, Steph., Zool. Jour. No. IV (1825).

Bakloh, Punjab, 5000 ft., xi [*Lindesay*]; also recorded from Brianon, France, 4000 ft., and from Durango State, Mexico, 8000 ft. *Type*, Prof. Bezzi informs me the *type* of *annulata*, Schrk., is no longer in existence. That of *affinis* is in the Hope collection at Oxford University, that of *variegatus* probably lost or unrecognizable

**glaphyoptera** Sch., F. Austr. II, 628 (*Culex*) (1864).

*Culex glaphyopterus*, Giles, Handbk., 216 (Sch.'s descr. copied).  
*Theobaldia glaphyoptera*, Edw., Bull. Ent. Res. IV, 237.  
*Pseudotheobaldia niveitaeniata*, Theob., Monog. Culic. IV, 272,  
 fig. 87, ♂ genitalia, 88, wing, ♂ (1907): Brun., Rec. Ind. Mus.  
 IV, 478.  
 Dehra Dun, ii, iii [Thompson]; Theog., Simla Distr., 2-v-07  
 [Annandale]. Type of *glaphyoptera*, location unknown to me;  
 that of *niveitaeniata* in British Museum.

**spathipalpis** Rond., Bull. Soc. Ent. Ital. IV, 31 (*Culex*) (1872).

*Culex spathipalpis*, Theob., Monog. Culic. I, 339, ♂ ♀; III, 154,  
 ♀; pl. x, wing scales; IV, 276 (larva descr.): Giles, Handbk.,  
 etc., 2nd ed., 392, ♂ ♀; pl. xv, 23, wing ♀, 24, head ♂, 25,  
 genitalia, ♂: Ficalbi, Bull. Soc. Ent. Italy XXI, 86; XXVIII,  
 242; pl. ii, 8, 9; pl. iii, 7, 12; pl. iv, 18, 21, 22; pl. v, 31, 34;  
 XXXI, 194, figs. 72—75, 146: Blanch., Moust., 283, ♂ ♀;  
 fig. 209, claws and genitalia.

*Theobaldia spathipalpis*, Brun., Rec. Ind. Mus. I, 340; IV, 459,  
 notes.

*Culex serratipes*, Beck., Mitt. Zool. Mus. Berl. IV, 78 (1908).

Naini Tal, 7000 ft. Occurs also in Italy, Palestine, Cyprus,  
 Madeira, Teneriffe, Algeria, Gibraltar, Malta, the Transvaal, and  
 Cape Colony. Type in Florence Museum.

In Edwards' latest paper he suggests sinking this species as  
 synonymous with (*Culex*) *longiareolatus*, Macq., but a compar-  
 ison with the type does not appear to have been made and until  
 such is the case the present name may as well stand. Mr. James  
 Waterston records the species under Macquart's name as com-  
 mon in Macedonia.

**pagei** Ludl., Psyche XVIII, 128, ♀ (1911).

Theob., Monog. Culic. V, 618.

Fort Pikit, Mindanao (Phil. Is.).

Type (presumably) in Army Medical Museum, Washington.

### Ficalbia, Theob.

Monog. Culic. III, 296 (1903).

Theob., *loc. cit.*, IV, 577, tab. spp.; V, 541,  
 tab. spp.: Gen. Ins., Fasc. 26, 36: Blanch.,  
 Moust., 418: Leices., Culic. Malaya, 228: Ed-  
 wards, Bull. Ent. Res. IV, 237: Brun., Rec. Ind.  
 Mus. I, 362; IV, 494; X, 60.

GENOTYPE, *Uranotaenia minima* Theob., by  
 Edwards' designation.

*Etorleptiomyia*, Theob., 1st Rep. Wellc. Labor., 71  
 (1904).

*Id.*, Gen. Ins., Fasc. 26, 44 (1905): *id.*, Monog.  
 Culic. IV, 505: Leices., Culic. Malaya, 178:  
 Brun., Rec. Ind. Mus. I, 368; IV, 484; X, 60:  
 Blanch., Moust., 632.

GENOTYPE, *E. mediolineata* Theob., by original designation.

*O'Reillia*, Ludl., Can. Ent. XXXVII, 101 (1905).

GENOTYPE, *O. luzonensis* Ludl., ♀, by original designation.

*Ludlowia*, Theob., Monog. Culic. IV, 193 (1907).

*Id.*, *loc. cit.*, V, 190, tab. spp.: Brun., Rec. Ind. Mus. IV, 493; X, 64.

Edw., Bull. Ent. Res. II, 244.

GENOTYPE, *Mimomyia chamberlaini* Ludl., by original designation.

*Megaculex*, Theob., Monog. Culic. IV, 282 (1907).

GENOTYPE, *Culex albitarsis* Theob., by original designation.

*Boycia*, Newstead, Ann. Trop. Med. and Parasit. I, 33 (1907).

GENOTYPE, *B. mimomyiaformis*, *id.*, sp. nov., *loc. cit.*

*Radioculex*, Theob., Rec. Ind. Mus. II, 295 (1908).

Theob., Monog. Culic. V, 192: Brun., Rec. Ind. Mus. IV, 465, X, 70.

GENOTYPE, *R. clavipalpus*, *id.*, sp. nov., *loc. cit.*

*Dasymyia*, Leices., Culic. Malaya, 102 (1908).

Brun., Rec. Ind. Mus. IV, 453; X, 59.

GENOTYPE, *D. fusca*: *id.*, sp. nov., *loc. cit.*

*Conopomyia*, *id.*, *loc. cit.*, 113 (1908).

Brun., Rec. Ind. Mus. IV, 453, X, 58.

GENOTYPE, *C. metallica* Leices., by my own designation.

*Hispidimyia*, Theob., Monog. Culic. V, 245 (1910).

GENOTYPE, *H. hispida*, *id.*, sp. nov., *loc. cit.*

*Ingramia*, Edw., Bull. Ent. Res. III, 43 (1912).

GENOTYPE, *Mimomyia maljeyti* Newstead, by original designation.

**minima** Theob., Monog. Culic. II, 262, ♂, fig. 281, wing, costal border, wing scales (*Uranotaenia*) (1901).

*Uranotaenia minima*, Giles, Handb., 2nd ed., 488, ♂

*Ficalbia minima*, Blanch., Moust., 418, ♂: Brun., Rec. Ind. Mus. IV, 494: Edw., Bull. Ent. Res. IV, 238.

*Mimomyia minuta*, Theob., Rec. Ind. Mus. II, 301, ♂ (1908).

*Id.*, *loc. cit.*, IV, 30, ♀; pl. i, wing; pl. iii, wing scales: *id.*, *loc. cit.*, V, 531, ♂ ♀, fig. 226, wing.

Quilon, 7-iii-00 and ii [James]; Sylhet, 27-xi-04 [Hall]; Calcutta, 30-vii and 3 or 4-viii-07 [Annandale].

Types of *minima* and *minuta* in British Museum.

**simplex** Theob., Monog. Culic. III, 297, ♂ (1903).

*Id.*, *loc. cit.*, V, 541, ♀, fig. 235, wing: Blanch., Moust., 418,

♂

*Aedes simplex*, Edw., Bull. Ent. Res. IV, 238.

*Skusea simplex*, *id.*, *loc. cit.*, VII, 224, fig. 9b, 9c, ♂ genitalia.  
Kurumegalla, Ceylon, ix [Green]; Trincomalee, xi, 1906 [Green].  
Type in British Museum.

**chamberlaini** Ludl., Can. Ent. XXXVI, 297, ♂ (*Mimomyia*) (1904).

*Ludlowia chamberlaini*, Theob., Monog. Culic. IV, 194, ♂ (Miss Ludlow's descr. copied): Brun., Rec. Ind. Mus. IV, 493.  
Bayembang, Phil. Is., v [Chamberlain].  
Type in British Museum.

**luzonensis** Ludl., Can. Ent. XXXVII, 101 (*O'Reillia*) (1905).

*Etorleptiomyia luzonensis*, Ludl., Can. Ent. XXXVIII, 185.

Theob., Monog. Culic. IV, 506, ♀

*Ficalbia luzonensis*, Edw., Bull. Ent. Res. IV, 238.

*Etorleptiomyia completiva*, Leices., Culic. Malaya, 178, ♂ (1908).

Brun., Rec. Ind. Mus. IV, 484.

Bayembang (Pangasinan, Ph. Is.) [Chamberlain]; Singapore [Finlayson]. Type of *luzonensis* in Army Medical Museum, Washington; of *completiva* in Leicester's collection.

**clavipalpus** Theob., Rec. Ind. Mus. II, 295, ♂ ♀ (*Radioculex*) (1908).

Theob., *loc. cit.*, IV; pl. i, wing; pl. ii, head: *id.*, Monog.

Culic. V, 193, ♂ ♀: Brun., Rec. Ind. Mus. IV, 465.

Calcutta, vii, xi, xii; Berhampur, Bengal, 1-1-08 [Lloyd];

Katihar, 4-5-x-08 [Paiva]; Vaikam coast of Travancore, 5-xi-08 [Annandale]; Rangoon, 25-ii-08 [Annandale]

Type in Indian Museum, *cotypes* in British Museum.

**fusca** Leices., *loc. cit.*, 102, ♂ ♀ (*Dasymyia*) (1908).

Brun., Rec. Ind. Mus. IV, 453.

Kuala Lumpur; Bukit Kutu (Malaysia).

Type in Leicester collection.

**metallica** Leices., Culic. Malaya, 113, ♂ ♀ (*Conopomyia*) (1908).

Kuala Lumpur and neighbourhood [Leicester].

Type in Leicester collection.

**hybrida** Leices., Culic. Malaya, 115, ♂ ♀ (1908).

Brun., Rec. Ind. Mus. IV, 453.

Kuala Lumpur [Leicester]; Singapore [Dr. Finlayson].

Type in Leicester collection.

**aurea** Leices., Culic. Malaya, 116, ♂ ♀ (1908).

Kuala Lumpur and Raub, Malaysia.

Type in Leicester collection.

**longirostris** Leices., Culic. Malaya, 228, ♂ ♀ (1908).

*Skusea longirostris*, Edw., Bull. Ent. Res. VII, 224.

Brun., Rec. Ind. Mus. IV, 494.

Kuala Klang, January. Type in Leicester collection.

**tenax** de Meij., Ann. Jard. Bot. Buitenzorg, Supp. 3, p. 928 (1910).

Java. Type in Amsterdam Museum.

**dofleini** Guenther, Zeits. wiss. Insek. IX, 204 (1914).

Ceylon. *Type*, location unknown to present author.

**ludlowi** *nom. nov.* for *minima*, Ludl., preocc.

*Mimomyia minima*, Ludl., Can. Ent. XXXIX, 413, ♂ ♀ (1907).

*Ludlowia minima*, Theob., Monog. Culic. V, 191, ♂ ♀ (Miss L.'s descr. copied): Brun., Rec. Ind. Mus. IV, 493.

### Uranotaenia, Arrib.

Revista Mus. La Plata I, 405 (1891).

Theob., Monog. Culic. II, 241, fig. head, 242, map of distribution, 243; tab. spp.; pl. D, wing scales; V, 498, tab. spp: *Id.*, Gen. Ins., Fasc. 26, 36: Blanch., Moust., 406, ♂ ♀: Giles, Handbk., 2nd ed., 485, 487, tab. spp.: Leices., Culic. Malaya, 203, tab. Malayan spp.: Brun., Rec. Ind. Mus. I, 363; IV, 495; X, 73: Alcock, Ent. Med. Off. 104: How., Dyar and Knab, Mosq. N. Amer., etc., IV, 898.

GENOTYPE, *U. pulcherrima* Arrib., by designation of Neveu-Lemaire, 1902.

*Pseudouranotaenia*, Theob., Jour. Econ. Biol. I, 33 (1905).

Theob., Monog. Culic. IV, 566, fig. 262 (p. 567), wing, ♂: Brun., Rec. Ind. Mus. IV, 494; X, 70.

GENOTYPE, *P. rowlandii* Theob., by original designation.

*Anisocheleomyia*, Theob., Entom. XXXVIII, 52 (1905).

Theob., Monog. Culic. IV, 570: Brun., Rec. Ind. Mus. I, 363; IV, 493; X, 55.

GENOTYPE, *A. nivipes* Theob., by my own designation, 1914.

**caeruleocephala** Theob., Monog. Culic. II, 256; fig. 276, thorax, scutellum, head scales (1901).

Brun., Rec. Ind. Mus. I, 363.

Cottabatto (Mindanao, Phil. Is.) [*Vedder*]. Also occurs in Gambia, the Sudan and old Calabar.

*Type* in British Museum.

**nivipes** Theob., Entom. XXXVIII, 53 (*Anisocheleomyia*) (1905).

*Uranotaenia nivipes*, Edw., Bull. Ent. Res. IV, 238.

*Uranotaenia nivea*, Leices., Culic. Malaya, 211, ♂ (1908): Brun., Rec. Ind. Mus. IV, 497.

*Pseudouranotaenia triangulata*, Ludl., Can. Ent. XL, 331, ♂ (1908): Theob., Monog. Culic. V, 525 (Miss Ludlow's descr. copied).

Kuala Lumpur; Reine Regente (Mindanao, Phil. Is.), ii

*Type*, *nivipes* in British Museum; *triangulata* in Army Medical Museum, Washington.

**alboannulata** Theob., Entom. XXXVIII, 54 (*Anisocheleomyia*) (1905).

*Uranotaenia alboannulata*, Edw., Bull. Ent. Res. IV, 238.

*Anisocheleomyia alboannulata*, Theob., Monog. Culic. IV, 573, ♂; fig. 267, wing, ♂; pl. vii, wing scales, ♀: Brun., Rec. Ind. Mus. IV, 493.

*trilineata*, Leices., Culic. Malaya, 204, ♂ ♀ (1908): Brun., Rec. Ind. Mus. IV, 498.

India [*James*]; Malaysia [*t. Leices.*]. *Types of alboannulata and trilineata* in British Museum.

**testacea** Theob., Ann. Mus. Hung., III, 113, ♀; fig. 14, basal segments of antennae; pl. ii, wing; pl. iii, wing scales (1905).

*Id.*, Monog. Culic. IV, 560, ♀; fig. 258, wing ♀: Edw., Bull. Ent. Res. IV, 239.

*unilineata*, Leices., Culic. Malaya, 220, ♂ ♀ (1908): Brun., Rec. Ind. Mus. IV, 498.

*falcipes*, Banks, Phil. Jour. Sci. I, 1004, ♂ ♀ (1906).

Singapore, 1902 [*Biro*]; Base of Dawna Hills, 4-iii-08 [*Annan-dale*]; Rizal; Manila, ii [*Banks, Schultze*]; Malaysia.

*Type of testacea* in British Museum, of *unilineata* in Leicester collection, of *falcipes* in Entom. coll. No. 5210, Bureau of Science, Manila.

**atra** Theob., Ann. Mus. Hung. III, 114, ♀ (1905).

*Id.*, Monog. Culic. IV, 563, ♀: Edwards, Bull. Ent. Res. IV, 238.

*ceylonica*, Theob., Monog. Culic. V, 503, ♀; fig. 213, wing (1910).

Muina, Papua [*Biro*]; Galle, Ceylon, 10-vi-07 [*T. B. Fletcher*].

*Type of atra* in Hungarian Museum; of *ceylonica* in British Museum.

**albitarsis** Ludl., Can. Ent. XXXVII, 131, ♀ (*Anisocheleomyia*) (1905).

Theob., Monog. Culic. IV, 576 (Miss L.'s descr. copied): Brun., Rec. Ind. Mus. I, 363; IV, 494.

Camp Stotsenberg, Angeles, Phil. Is. [*Ludlow*].

*Type* in Army Medical Museum, Washington.

**lateralis** Ludl., Can. Ent. XXXVII, 385, ♀ (*caeruleocephala*, Theob., var.) (1905).

*Id.*, Mosq. Phil. Is., 10 (*caeruleocephala*, var.).

Cottabatto, Mindanao, Philippines.

*Type* in Army Med. Mus., Washington.

Specific validity doubtful, as Miss Ludlow says, if Theobald's *type* was a rubbed specimen it became her var. *lateralis*; Theobald considers the species valid.

**micans** Leices., Culic. Malaya, 206, ♂ ♀ (1908).

Brun., Rec. Ind. Mus. IV, 497.

Malaysia. *Types* in Leicester's collection.

**bimaculiala** Leices., Culic. Malaya, 208, ♂ ♀ (1908).

Brun., Rec. Ind. Mus. IV, 495.

Kuala Lumpur; Raub. *Types* in Leicester's collection.

- unimaculiala** Leices., *Culic. Malaya*, 210, ♀ (1908).  
 Brun., *Rec. Ind. Mus.* IV, 498.  
 Malaysia. *Type* in Leicester's collection.  
 Erroneously recorded by me as *unimaculata* (*Cat. Or. Culic. Supp.*).
- campestris** Leices., *Culic. Malaya*, 213, ♂ ♀ (1908).  
 Brun., *Rec. Ind. Mus.* IV, 495.  
 Malaysia. *Types* in Leicester's collection.
- argyrotarsis** Leices., *Culic. Malaya*, 214, ♂ ♀ (1908).  
 Brun., *Rec. Ind. Mus.* IV, 495.  
 Kuala Lumpur. *Types* in Leicester's collection.
- cancer** Leices., *Culic. Malaya*, 215, ♂ ♀ (1908).  
 Brun., *Rec. Ind. Mus.* IV, 496.  
 Port Swettenham, Klang. *Types* in Leicester's collection.
- longirostris** Leices., *Culic. Malaya*, 217, ♂ (1908).  
 Brun., *Rec. Ind. Mus.* IV, 496.  
 Malaysia. *Type*, apparently unique, in Leicester's collection.
- modesta** Leices., *Culic. Malaya*, 218, ♂ ♀ (1908).  
 Brun., *Rec. Ind. Mus.* 497.  
 Ampang Jungle, Malaysia. *Types* in Leicester's collection.
- nivipleura** Leices., *Culic. Malaya*, 219, ♂ ♀ (1908).  
 Brun., *Rec. Ind. Mus.* IV, 497.  
 Selangor. *Types* in Leicester's collection.
- maxima** Leices., *Culic. Malaya*, 221, ♀ (1908).  
 Brun., *Rec. Ind. Mus.* IV, 497.  
 Selangor. *Type* in Leicester's collection.
- lutescens** Leices., *Culic. Malaya*, 222, ♂ ♀ (1908).  
 Brun., *Rec. Ind. Mus.* IV, 496.  
 Kuala Lumpur.
- maculipleura** Leices., *Culic. Malaya*, 223, ♀ (1908).  
 Kuala Lumpur. *Type*, unique, in Leicester's collection.
- bicolor**, *id., loc. cit.*, 225, ♂ ♀ (1908).  
 Brun., *Rec. Ind. Mus.* IV, 495.  
 Kuala Lumpur. *Types* in Leicester's collection.
- bimaculata** Leices., *Culic. Malaya*, 226, ♀ (1908).  
 Brun., *Rec. Ind. Mus.* IV, 495.  
 Kuala Lumpur. *Type* in Leicester's collection.
- parangensis** Ludl., *Can. Ent.* XLI, 24, ♀ (*Pseudouranotaenia*) (1909).  
 Theob., *Monog. Culic.* V, 524 (Miss L.'s descr. copied).  
 Parang, Mindanao, Phil. Is.  
*Type* in Army Medical Museum, Washington.
- powelli** Ludl., *Can. Ent.* XLI, 235, ♀ (1909).  
 Theob., *Monog. Culic.* V, 519, ♀: Brun., *Rec. Ind. Mus.* IV, 497.

Tayabas, Phil. Is., January.

Type in Army Medical Museum, Washington.

*ascidiicola* de Meij., Ann. Jard. Bot. Buitenzorg, Supp. 3, 925 (1910).

Java. Type in Amsterdam Museum.

*leicesteri* Edw., Bull. Ent. Res. IV, 239 (*nom. nov.* for *fusca*, Leices.) (1913).

nec *U. fusca*, Theob., 1907.

*fusca*, Leices., Culic. Malaya, 227, ♂ ♀ (1908).

Brun., Rec. Ind. Mus. IV, 496.

Sungei Limbing (Malay Peninsula) [Dr. Daniels].

Type in Leicester's collection.

*metatarsata* Edw., Bull. Ent. Res. V, 81, ♂ (1914).

Kuala Lumpur, 28-viii-03, 9-x-03 [Leicester].

Type in British Museum.

*moultoni*, *id.*, *loc. cit.*, V, 128, ♂ ♀ (1914—15).

Kuching reservoir, Sarawak, 6-iii-14 [Moulton].

Type in British Museum.

*brevirostris*, *id.*, *loc. cit.*, V, 284, ♂ ♀ (1914—15).

Kuching, Sarawak; bred from pitcher plant, 1907 [J Hewitt].

Types in British Museum.

*obscura*, *id.*, *loc. cit.*, V, 285, ♂ ♀ (1914—15).

Sarawak. From old collection, Sarawak Museum.

Type in British Museum.

### Orthopodomyia, Theob.

Entom. XXXVII, 236 (1904).

Theob., Monog. Culic. IV, 527; V, 470, tab. spp.: Leices., Culic. Malaya, 175; Brun., Rec. Ind. Mus. I, 362; IV, 486; X, 67; Edw., Bull. Ent. Res. IV, 239; How., Dyar and Knab, Mosq. N. Amer. IV, 878.

GENOTYPE, *O. albipes* Theob., by original designation.

*Bancroftia*, Lutz, in Bourroul's Mosq. do Bras., 59 (1904).

GENOTYPE, *B. albicosta* Lutz, by original designation.

*anopheloides* Giles, Jour. Trop. Med. VI, 315 (*Mansonia*) (1903).

Edw., Rec. Ind. Mus. IV, 239.

*Finlaya anopheloides*, Brun., Rec. Ind. Mus. I, 361.

*O. maculata*, Theob., Rec. Ind. Mus. IV, 29, ♂ (1910).

*Id.*, Monog. Culic. V, 473, ♂.

*O. albipes* var. *nigritarsis*, Leices., Culic. Malaya, 177.

Maddathorai, 17-xi-08 [Annandale], type of *maculata*; Pangkor Haut, type of *nigritarsis* [Dr. Daniels]. Types of *anophe-*



*loides*, ♂ ♀ in British Museum; of *maculata* in Indian Museum; of *nigritarsis* in Leicester collection.

**albipes** Leices. in Theob., Entom. XXXVII, 237, ♂ ♀ (1904).

Theob., Monog. Culic. IV, 527, ♂ ♀: Leices., Culic. Malaya, 176, ♂ ♀: Brun., Rec. Ind. Mus. I, 362; IV, 486.

Kuala Lumpur, iv [*Leicester*]. Type in British Museum.

**maculipes** Theob., Monog. Culic. V, 470; fig. 208, head ♀; 209, wing, ♀, 210, wing ♀ (? error for ♂) (1910).

Maddathorai, Travancore, 17-xi-08 [*Annandale*]; Peradeniya, 5-vii-09 [*Green*]; Andaman Is., 22-vii-08 [*Lowis and Ray White*]. Type ♂ in Indian Museum; ♀ in British Museum.

Edwards thinks both *albipes* and *maculipes* probably colour varieties only of *anopheloides*.

### **Aedeomyia**, Theob.

Theob., Monog. Culic. II, 218; fig. 259, scales; 260, map of distribution; (sp. allotted) (1901).

Theob., Jour. Trop. Med. IV, 235 (*nom. nud.*) (1901): *id.*, Monog. Culic. V, 486: *Id.*, Gen. Ins., Fasc. 26, 35: Blanch., Moust., 403, ♂ ♀; fig. 255, var. chars.: Leices., Culic. Malaya, 181: Brun., Rec. Ind. Mus. I, 366, IV, 488, X, 54: How., Dyar and Knab, Mosq. N. Amer., etc., IV, 893.

GENOTYPE, *Aedes squammipennis* Arrib., by my own designation (1914).

*Aedomyia*, Giles, Handbk., etc., 2nd ed., 478.

Edw., Bull. Ent. Res. III, 24.

**squampenna** Arrib., El. Nat. Argent. I, 151 (*Aedes squammipennis*) (1878).

Brun., Rec. Ind. Mus. I, 366, IV, 488.

*Aedes squammipenna*, Arrib., Dipt. Argent., 62 (1891).

*Aedes squampennis*, Giles, Handbk., etc., 347.

*Aedeomyia squampenna*, Theob., Monog. Culic. II, 219, ♂ ♀; fig. 261, var. chars., ♂ ♀; pl. xxxi, 124, ♀, full ins. col. pl. E. wing scales; *loc. cit.*, III, 307: Leices., Culic. Malaya, 182, ♂ ♀: Paiva, Rec. Ind. Mus. V, 202, notes.

*Aedeomyia squampennis*, Theob., Gen. Ins., Fasc. 26; pl. ii, 9, ♀, full ins. col.: Giles, Handb., etc., 2nd ed., 479.

*Aedeomyia squampennis*, Blanch., Moust., 404, ♀

Dawna Hills, 2-iii-08 [*Annandale*]; Calcutta, xi, "at light"; Madras [*Cornwall*]; "at light" at sea, 4 miles off Tuticorin, 25-v-08 [*Paiva*]; Ceylon; Kuala Lumpur Perak [*Wray*], Seleo Berlinhafen and Friedrich Wilhelmshafen [both Papua and *Biro*], Manila [*Banks*]. Also occurs in South America, West Indies and the Sudan. Type of *squampenna*, location unknown to present author.

**catasticta** Knab, Ent. News Phil., XX, 387, ♀ (1909).

Brun., Rec. Ind. Mus. IV, 488 : Edw., Bull. Ent. Res. III, 25. Samal, Bataan Parang; Mindanao [both *Philippines*]; also Africa.

*Type*, Cat. No. 12,627, United States National Museum.

Edwards states that British Museum specimens from the Sudan, Gold Coast and both North and South Nigeria agree exactly with Knab's description.

### Leptosomatomyia, Theob.

Ann., Mus. Hung. III, 110 (1905).

Theob., Monog. Culic. IV, 548: Brun., Rec.

Ind. Mus. I, 362; IV, 488; X, 63.

GENOTYPE, *L. lateralis* Theob., by original designation.

*lateralis* Theob., Ann. Mus. Hung. III, 110, ♂; fig. 13, head, scutellum, claws (1905).

*Id.*, Monog. Culic. IV, 548, ♂; fig. 252, head, scutellum, claws.

Muina, Papua. 31-xii-00 [*Biro*].

*Type* (partly dissected) in Hungarian Museum.

### Harpagomyia, de Meij.

Tijd. v. Ent. LII, 165 (1909).

*Id.*, *loc. cit.*, LIV, 126 (metamorphoses); pl. xiv, var. chars.: Theob., Monog. Culic. V, 547; Brun., Rec. Ind. Mus. IV, 504; X, 61.

GENOTYPE, *Malaya genurostris* Leices., as *Harpagomyia splendens* de Meij., sp. nov., *loc. cit.*

*Malaya*, Leices., Culic. Malaya, 258 (1908).

Brun., Rec. Ind. Mus. IV, 503; X, 64.

GENOTYPE, *M genurostris*, *id.*, sp. nov., *loc. cit.*

This name, as pointed out by Edwards, is preoccupied by *Malasia*, Heller, 1891, in Coleoptera.

*Grahamia*, Theob., Rep. on Dr. Graham's coll. (1909), and Monog. Culic. V, 497, footnote, and 548.

*genurostris* Leices., Culic. Malaya, 258 (*Malaya*) (1908).

Edw., Bull. Ent. Res. IV, 240.

*Harpagomyia splendens*, Meij., Tijd. v. Ent. LIII, 167, ♂ ♀, pl. x, 1—9, var. chars. (1909).

Brun., Rec. Ind. Mus. IV, 504.

*H. caeruleovittata*, Ludl., Psyche XVIII, 131 (1911).

Malay Peninsula; Mindanao, Phil. Is., vii.

*Type* of *genurostris* in British Museum; of *splendens* in Amsterdam Museum; of *caeruleovittata* in Army Med. Mus., Washington.

**Hodgesia**, Theob.

Jour. Trop. Med. VII, 17 (1904).

*Id.*, Monog. Culic. IV, 579; V, 544: Gen. Ins., Fasc. 26, 40: Giles, Jour. Trop. Med. VII, 368: Leices., Culic. Malaya, 229: Brun., Rec. Ind. Mus. I, 367; IV, 500; X, 62: Blanch., Moust., 631.

GENOTYPE, *H sanguinae* Theob., by original designation.

**sanguinae** Theob., Jour. Trop. Med. VII, 17 (1904).

Giles, *loc. cit.*, VII, 368: Brun., Rec. Ind. Mus. I, 367.

Angeles, Phil. Is. [*Whitmore*]; Luzon. Also occurs in Uganda.

*Type* in British Museum.

**quasisanguineae** Leices., Culic. Malaya, 230, ♀ (1908).

Edw., Bull. Ent. Res. IV, 240.

*niveocaputis*, Ludl., Psyche XVIII, 130, ♀ (1911).

Kuala Lumpur; Fort Pikit, Mindanao, Phil. Is., xi.

*Type* of *quasisanguinea* in Leicester's collection; of *niveocaputis* presumably in Army Medical Museum, Washington.

**malayi** Leices., Culic. Malaya, 231, ♂ ♀ (1908).

Brun., Rec. Ind. Mus. IV, 500.

Kuala Lumpur. *Type* in Leicester's collection.

**trimaculata** Taylor, Trans. Ent. Soc. Lond., p. 204 (1914).

Papua.

**Topomyia**, Leices.

Culic. Malaya, 238 (1908).

Brun., Rec. Ind. Mus. IV, 499; X, 72.

GENOTYPE, *T minor*, sp. nov., *loc. cit.*, by my own designation.

*Pseudograhamia*, Theob., Rec. Ind. Mus. IV, 26 (1910).

*Id.*, Monog. Culic. V, 551: Brun., Rec. Ind. Mus. I, 340; IV, 460; X, 69.

GENOTYPE, *P. aureoventer* Theob., by original designation.

**minor** Leices., Culic. Malaya, 238, ♂ ♀ (1908).

Brun., Rec. Ind. Mus. IV, 500.

Kuala Lumpur. *Type* in Leicester's collection.

**decorabilis** Leices., Culic. Malaya, 239, ♂ ♀ (1909).

Selangor. *Type* in Leicester's collection.

**argentoventralis** Leices., *loc. cit.*, 240, ♂ ♀ (*argentoventralis*) (1908).

Brun., Rec. Ind. Mus. IV, 499: Edw., Bull. Ent. Res. IV, 240.

*Pseudograhamia aureoventer*, Theob., Rec. Ind. Mus. IV, 27, ♀ (1910): Theob., Monog. Culic. V, 551, ♀: Brun., Rec. Ind. Mus. IV, 460, 489.

Selangor; Pallode, Travancore, 16-xi-08 [Annandale]. Type of *argenteoventralis* in Leicester's collection; of *aureoventer* in Indian Museum. Theobald says (Monog. V) that the type of *aureoventer* is in the British Museum, but it is in the Indian Museum.

**argyropalpis** Leices., Culic. Malaya, 242; ♂ ♀ (1908).

Selangor, iv; Kuala Lumpur, iii. Types (a unique pair) in Leicester's collection.

**rubithoracis**, *id.*, *loc. cit.*, 243, ♂ ♀ (1908).

Malaysia. Types in Leicester's collection.

**gracilis**, *id.*, *loc. cit.*, 244, ♂ ♀ (1908).

Selangor, v. Type in Leicester's collection.

**nigra**, *id.*, *loc. cit.*, 245, ♂ ♀ (1908).

Ampang, near Kuala Lumpur. Type in Leicester's collection.

**dubitans**, *id.*, *loc. cit.*, 246, ♀ (1908).

Selangor, v. Type, a unique specimen, probably lost, not in Leicester's collection.

**tipuliformis**, *id.*, *loc. cit.*, 247, ♂ (1908).

Brun., Rec. Ind. Mus. IV, 500.

Selangor [Raub.] Type in Leicester's collection.

*T. argyroventralis* may be the ♀ of this species, according to Leicester, instead of the ♀ described as such, although the way he mentions it is that *tipuliformis* may be the real ♂ of *argentoventralis*. If this proves to be the case the name of the ♂ (*tipuliformis*) should stand, in spite of *argentoventralis* being described on a previous page.

### **Zeugnomyia**, Leices.

Culic. Malaya, 231 (1908).

Brun., Rec. Ind. Mus. IV, 498; X, 73.

GENOTYPE, *Z. gracilis* Leices., by original designation.

**gracilis** Leices., Culic. Malaya, 232, ♂ ♀ (1908).

Brun., Rec. Ind. Mus. IV, 498.

Kuala Lumpur; Jugra, x, xi, xii. Type in Leicester's collection.

### **Rachionotomyia**, Theob.

Jour. Bomb. Nat. Hist. Soc. XVI, 248 (1905).

Theob., Monog. Culic. IV, 518: Edw., Bull.

Ent. Res. IV, 240: Brun., Rec. Ind. Mus. I, 368;

IV, 485; X, 70.

GENOTYPE, *R. aranoides*, Theob., as *R. ceylonensis*, sp. nov., by original designation.

*Runchomyia*, Theob., Monog. Culic. III, 319 (1903).

Theob., *loc. cit.*, IV, 585, note on name; V, 555, note

on name: *id.*, Gen. Ins., Fasc. 26, 38: Brun., Rec. Ind. Mus. I, 365; IV, 493; X, 71.

GENOTYPE, *R. frontosa*, *id.*, *loc. cit.*, sp. nov.

*Binotia*, Blanch., Arch. de Parasit. VIII, 478 (1904): *nom. nov.*, under suggested preoccupation by *Rhynchomyia*, Rob. Des. in Muscinae.

*Polylepidomyia*, Theob., Ann. Mus. Hung. III, 118 (1905).

Theob., Monog. Culic. IV, 625: Brun., Rec. Ind. Mus. I, 366; IV, 502; X, 68.

GENOTYPE, *P. argenteiventris* Theob., by original designation.

*Colonemyia*, Leices., Culic. Malaya, 233 (1908).

Brun., Rec. Ind. Mus. IV, 498; X, 58.

GENOTYPE, *C. caeruleocephala*, Leices., by my own designation.

*Skeiromyia*, *id.*, *loc. cit.*, 248 (1908).

Brun., Rec. Ind. Mus. IV, 500; X, 71.

GENOTYPE, *S. fusca*, Leices., by original designation.

*Squamomyia*, Theob., Rec. Ind. Mus. IV, 28 (1910).

*Id.*, Monog. Culic. V, 529: Brun., Rec. Ind. Mus. IV, 489; X, 71.

GENOTYPE, *S. inornata*, Theob., by original designation.

**aranoides** Theob., Monog. Culic. II, 274, ♀ (*Wyeomyia*) (1901).

*Rachionotomyia aranoides*, Edw., Bull. Ent. Res. IV, 241.

*Wyeomyia aranoides*, Giles, Handbk., 2nd ed., 499, ♀: Blanch., Moust., 425.

*Rachionotomyia ceylonensis*, Theob., Jour. Bomb. Nat. Hist. Soc.

XVI, 248, ♀; pl. B. 6, scutellum (1905): Brun., Rec. Ind. Mus. I, 369.

*Skeiromyia fusca*, Leices., Culic. Malaya, 248, ♂ ♀ (1908).

Brun., Rec. Ind. Mus. IV, 500.

*Squamomyia inornata*, Theob., Rec. Ind. Mus. IV, 28, ♂ (1910).

*Id.*, Monog. Culic. V, 529, ♂

Straits; Malaysia; Peradeniya, x-01 [Green]; Dawna Hills, 2000—3000 ft., 2—3-iii-08 [Annandale]. *Types of aranoides and ceylonensis* in British Museum; of *fusca* in Leicester's collection; of *inornata* in Indian Museum.

**nitidiventer** Giles, Jour. Trop. Med. VII, 368 (*Uranotaenia*) (1904).

*Rachionotomyia nitidiventer*, Edw., Bull. Ent. Res. IV, 241.

*Runchomyia philippinensis*, Giles, Jour. Trop. Med. VII, 368 (1904): Theob., Monog. Culic. V, 555 (Gile's descr. copied):

Brun., Rec. Ind. Mus. IV, 493.

Pampanga, Phil. Is. [Whitmore].

*Types of both forms* in British Museum.

**argenteiventris** Theob., Ann. Mus. Hung. III, 118, ♀, fig. 15, head, scutellum, bristles (*Polylepidomyia*) (1905).

*Id.*, Monog. Culic. IV, 625, fig. 291, head, etc.; fig. 292, wing, ♀

- Paumomu River (Papua), ix, xii, 1892 [*Loria*].  
*Type* in Hungarian Museum.
- caeruleocephala** Leices., Culic. Malaya, 233, ♂ ♀ (*Colonemyia*) (1908).  
 Brun., Rec. Ind. Mus. IV, 498.  
 Bukit Kutu; Ulu Klang. *Type* in Leicester's collection.
- similis** Leices., Culic. Malaya, 235, ♂ ♀ (*Colonemyia*) (1908).  
 Bukit Kutu; Malaysia. *Type* in Leicester's collection.
- hybrida**, *id.*, *loc. cit.*, 237, ♀ (*Colonemyia*) (1908).  
 Bukit Kutu; Malaysia. *Type* in Leicester's collection.
- mendacis** Daniels, Studies Inst. Med. Res. Fed. Malay States, III, 266, ♂ ♀ (1908), (*Colonemyia*) (1908).  
 Brun., Rec. Ind. Mus. IV, 499.  
 East Coast Malay Peninsula.  
*Type* probably lost, not in Leicester's collection. Dr. Daniels' paper follows that of Leicester's in the same publication.
- affinis** Edwards, Bull. Ent. Res. IV, 241, *nom. nov.* for *Phoniomyia caeruleocephala*, Theob. (*nec* Leices).  
*Phoniomyia caeruleocephala*, Theob., Monog. Culic. V, 577, ♂ ♀, fig. 252, wing (1910).  
*nec Colonemyia caeruleocephala*, Leices., Culic. Malaya, 233 (1908).  
 Hakgala, Ceylon, iii-07 [*Green*].  
*Types*, a unique pair, in British Museum.
- vicina** Edw., Bull. Ent. Res. V, 128, ♂ ♀ (1914).  
 Kuching Reservoir, 6-iii-14 [*Moulton*].  
*Types* in British Museum.
- nepenthis**, *id.*, *loc. cit.* V, 285, ♂ ♀ (1914).  
 Bred from pitcher plant, xi-07 [*J Hewitt*].
- proxima**, *id.*, *loc. cit.* V, 285, ♂ ♀ (1914).  
 Ulu Klang [*Leicester*] from old collection, Sarawak Museum, including *type*: Ulu Gombak [*Stanton*].  
*Types* in British Museum.

### Wyeomyia, Theob.

Monog. Culic. II, 267 (1901).

- Theob., Jour. Trop. Med. II, 235 (*nom. nud*):  
*id.*, Monog. Culic. III, 310, restricted (1903); V, 579, notes: *id.*, Gen. Ins., Fasc. 26, 38: Blanch., Moust., 423: Giles, Handbk., etc., 2nd ed. 495: Leices., Culic. Malaya, 250: Brun., Rec. Ind. Mus. I, 365; IV, 501; X, 73: How., Dyar and Knab, Mosq. N. Amer., etc., IV, pt. 1, 49.  
 GENOTYPE, *W. grayii* Theob., by designation of Neveu-Lemaire (1902).  
*Phoniomyia*, Theob., Monog. Culic. III, 311 (1903): Theob., *loc. cit.* IV, 598; Gen. Ins., Fasc.

26, 38: Blanch., Moust., 425: Leices., Culic. Malaya, 253: Brun., Rec. Ind. Mus. I, 365; IV, 502; X, 68.

GENOTYPE, *Wyeomyia longirostris* Theob., by designation of Dyar.

*Dendromyia*, Theob., *loc. cit.* III, 313 (1903).

*Id.*, *loc. cit.* IV, 603, list, spp.; V, 587, tab. spp.: *id.*, Gen. Ins., Fasc. 26, 39: Blanch., Moust. 426: Leices., Culic. Malaya, 25; Brun., Rec. Ind. Mus. IV, 502: X, 59.

GENOTYPE, *D. ulocoma* Theob., by personal designation (1914). Howard, Dyar and Knab give *Wyeomyia luteoventralis* Theob.

*Bolbodeomyia*, Theob., Rec. Ind. Mus. IV, 31 (1910): *Id.*, Mong. Culic. V, 581: Brun., Rec. Ind. Mus. IV, 492; X, 56.

GENOTYPE, *B. comptex*, Theob., sp. nov., by original designation.

*Heinzmannia*, Ludl., Can. Ent. XXXVII, 130 (*Heizmannia*, lapsus) (1905): Banks, Phil. Jour. Sci. I, 99: Brun., Rec. Ind. Mus. I, 366; X, 61.

GENOTYPE, *H. scintillans* Ludl., by original designation.

**greenii** Theob., Jour. Bomb. Nat. Hist. Soc., XVI, 247, ♂ ♀; pl. B. 5, antenna (1905).

*Id.*, Monog. Culic. IV, 596: Brun., Rec. Ind. Mus. I, 366; IV, 501.

Peradeniya [Green], a perfect pair. *Types* in British Museum.

**bimaculipes** Theob., Ann. Mus. Hung. III, 114, ♀ (*Phoniomyia*) (1905): *id.*, Mong. Culic. IV, 600, ♀

Moroka, Papua, 1300 metres alt., vii—ix, Fredrich Wilhelmshafen, Papua [Biro]. *Type* in Hungarian Museum.

**indica** Theob., Ann. Mus. Hung. III, 115, ♂ ♀, pl. ii, wing ♀; pl. iii, wing scales ♀ (*Phoniomyia*) (1905).

*Phoniomyia indica*, Theob., Mong. Culic. IV, 601, ♂, fig. 275, wing ♀: Leices., Culic. Malaya, 253, ♂ ♀: Brun., Rec. Ind. Mus. I, 365; IV, 502, notes.

Kuala Lumpur; Singapore. *Type* in British Museum.

**scintillans** Ludl., Can. Ent. XXXVII, 130, ♀ (*Heizmannia*, lapsus) (1905).

Angeles, Pampanga, Phil. Is., ix?

*Type* in Army Medical Museum, Washington.

**metallica** Leices., Culic. Malaya, 251, ♀ (1908).

Bukit Kutu, Malaysia.

*Type*, a unique ♀, in Leicester's collection.

**funerea**, *id.*, *loc. cit.*, 252, ♀ (1908).

Kuala Lumpur. *Type*, a unique ♀, in Leicester's collection

- communis**, *id.*, *loc. cit.*, 254, ♂ ♀ (*Dendromyia*) (1908).  
 Selangor. Types in Leicester's collection.
- aureochaetae**, *id.*, *loc. cit.*, 255, ♀ (*Dendromyia*) (1908).  
 Kuala Lumpur, iv, v. Type in Leicester's collection.
- achaetae**, *id.*, *loc. cit.*, 257, ♀ (*Dendromyia*) (1908).  
 Brun., Rec. Ind. Mus. IV, 503.  
 Malaysia, a unique ♀ Type in Leicester's collection.
- nepenthicola** Banks, Phil. Jour. Sci. IV, 550, ♂ ♀ (1910).  
 Benguet (Trinidad, Phil. Is.), 30-xii-07 [Banks].  
 Type in Entomological collection, Cat. No. 8159, Bureau of  
 Science, Manila.
- complex** Theob., Rec. Ind. Mus. IV, 31, ♂ ♀ (*Bolbodeomyia*)  
 (1910).  
*Id.*, Mong. Culic. V, 581, ♂ ♀, fig. 253, ♂ genitalia, 254,  
 wing, ♂; 255, wing, ♀: Brun., Rec. Ind. Mus. IV, 492.  
 Dawna Hills, 2000—3000 ft., 1-3-iii-08 [Annandale].  
 Types, a unique pair, in Indian Museum.

#### Sub-family CORETHRINAE.

Giles, Handbk., 2nd. ed., 500.

Brun., Rec. Ind. Mus. IV, 317; 504, *loc. cit.*, VI, 227.

#### *Chaoborus*, Lichtenstein.<sup>1</sup>

Arch. Zool. I, 174 (1800).

GENOTYPE, *Tipula plumicornis* F., as *antisepticus*, sp. nov.

*Sayomyia*, Coq., Can. Ent. XXXV, 189 (1903).

Theob., Gen. Ins., Fasc. 26, 42: Brun., Rec. Ind. Mus. I, 368; X, 71.

GENOTYPE, *Corethra punctipennis* Say., sp. nov.

**manilensis** Sch., Nov. Reise, Dipt. 30 (*Corethra*) (1868).

Edw., Bull. Ent. Res. IV, 242.

*Sayomyia manilensis*, Brun., Rec. Ind. Mus. I, 368.

*Corethra manillensis*, Giles, Handbk., etc., 360, 2nd ed., 504.

*Corethra asiatica*, Giles, Jour. Bomb. Nat. Hist. Soc. XIII, 610 (1901)<sup>2</sup>: Brun., Rec. Ind. Mus. I, 368.

*Chaoborus asiatica*, Brun., Rec. Ind. Mus. IV, 505.

*Chaoborus manillensis* (larva and pupa), Bains Prashad, Rec. Ind. Mus. XV, 154, pl. xix, 1-7.

Calcutta, v, vii, viii, ix, xi, xii, often at light [Annandale];  
 Sibpur, near Calcutta, viii; Katihar, Purnea Distr., at light;  
 Shajahanpur, Punjab [Giles]; Manila; Yenna R., Medha, Satara

<sup>1</sup> For discussion on generic synonymy in Corethrinae, see Brun., Rec. Ind. Mus. IV, 317 and VI, 227.

<sup>2</sup> A two-line "description."



Dist., Bombay Presidency. *Type*: location unknown to present author.

**cornfordi** Theob., Monog. Culic. III, 339, ♀ (*Corethra*) (1903).  
Shaohyling, China, v, vi [*Cornford*]. *Type*, location unknown to present author.

### Corethrella, Coq.

Jour. N. Yk. Ent. Soc. X, 191 (1902).

GENOTYPE, *C. brakeleyi*, Coq., by original designation.

*Ramcia*, Annand., Spol. Zeyl. VII, 187 (1911).

GENOTYPE, *R. inepta*, *id.*, sp. nov., *loc. cit.*

**inepta** Annand., Spol. Zeyl. VII, 189, fig. (p. 188) and pl. (larva, pupa, wing, etc.) (1911).

Diyatalawa, Ceylon, 4,300 ft. Larva, pupa and one imago, a ♂ taken by Maj. MacDougall, R.A.M.C.

*Type* in the British Museum; *co-type* of larva in the Indian Museum.

### Family DIXIDAE.

#### Dixa, Mg.

Syst. Besch. I, 316 (1818).

Sch., F. Austr. II, 641: Brun., Fauna Brit.

Ind., 258, fig. 38, var. chars.: *id.*, Rec. Ind. Mus.

IV, 264, tab. Ind. spp.

GENOTYPE, *Dixa maculata* Mg., by Curtis's designation.

**montana** Brun., Rec. Ind. Mus. IV, 265, ♂ ♀ (1911).

*Id.*, Fauna Brit. Ind., 262, ♂ ♀, pl. xii, 9, wing.

Simla, 10-v-09, *type* ♂; Phagu, 11-v-09, *type* ♀; Barogh, 5000 ft., 10-v-09 [all Simla Distr. and all *Annandale*].

*Types* in Indian Museum.

**maculipennis** Brun., Rec. Ind. Mus. IV, 266, ♂ ♀ (1911).

*Id.*, Fauna Brit. Ind., 263, ♂ ♀, pl. xii, 10, wing.

Darjiling, 29-v-10, *type* ♂ [*Brunetti*]; Matiana, 8000 ft., Simla Distr., 28--30-iv-07, *type* ♀ [*Annandale*].

*Types* in the Indian Museum, a unique pair.

**ochrolineata** Brun., Rec. Ind. Mus. IV, 267, ♀ (*ochrilineata*) (1911).

*Id.*, Fauna Brit. Ind. 261, ♀, pl. xii, 8, wing.

Kurseong, 9-ix-09 [*Annandale*].

*Type*, unique, in Indian Museum.

**bistriata** Brun., Rec. Ind. Mus. IV, 269, ♂ (1911).

*Id.*, Fauna Brit. Ind. 264, ♂

Darjiling, 29-v-10. [*Brunetti*].

*Type*, unique, in Indian Museum.

**bifasciata** Brun., Rec. Ind. Mus. IV, 269, ♀ (1911).

*Id.*, Fauna Brit. Ind. 264, ♀

Phagu, Simla Distr., 12-v-09 [*Annandale*].

*Type*, unique, in Indian Museum.

**binotata** Edw., Jour. Fed. Malay Sts. Mus., VIII, 9, ♂ (1919).

Korinchi Peak, Sumatra.

### Family TIPULIDAE.

#### Sub-family PTYCHOPTERINAE.

#### Ptychoptera, Mg.

Illig. Mag. II, 262 (1803)

Sch., F. Austr. II, 495: Brun., Fauna Brit.

Ind., 279: *Auctt.*

GENOTYPE, *Tipula contaminata* L., designated by Latreille (1810).

? *Ctenoceria*; Rond., Dipt. Ital. Prod. I, 187 (1856).

**distincta** Brun., Rec. Ind. Mus. VI, 232, ♀ (1911).

*Id.*, Fauna Brit. Ind., 281, ♀; pl. v, 1, wing (1912).

Darjiling, 7000 ft., 3—9-vi-09 [*Howlett*].

*Type* in Pusa collection, a unique specimen.

**tibialis** Brun., Rec. Ind. Mus. VI, 233, ♂ ♀ (1911):

*Id.*, Fauna Brit. Ind. 282, ♂ ♀ (1912): *id.*, Rec. Ind. Mus. XV, 256.

**atritarsis**, Brun., Rec. Ind. Mus. VI, 234 ♀ (1911): *id.*, Fauna Brit. Ind., 283, ♀ (1912): *id.*, Rec. Ind. Mus. XV, 256.

Darjiling, 7000 ft., 7—16-x-05, 30-ix-08, 7-vi-17; 1st week in June 1917, very common [all *Brunetti*]; Siliguri, 18—20-vii-07; Lebong, 6000—6600 ft., near Ghoom, 13-vi-14 [*Gravelly*].

*Type* ♂ of *tibialis* in Indian Museum; *type* ♀ and *cotype* ♂ ♂ in my collection; *cotype* ♀ in Vienna Museum; *type* of *atritarsis* in Indian Museum.

**annandalei** Brun., Rec. Ind. Mus. XV, 296, ♂ (1918).

Kalaw, 4000—45000 ft., South Shan States, 10-iii-17 [*Gravelly*].  
Two ♂ ♂ *Type* in Indian Museum.

#### Tanyderus, Phil.

Verh. zool.-bot. Ges. Wien, XV, 780, pl. xxix, 57 (1865).

Ost. Sack., *loc. cit.*, XXIX, 517—522 (1879):

Brun., Rec. Ind. Mus. XV, 255.

GENOTYPE, *Cylindrotoma ornatissima* Dol., by original designation.

**ornatissimus** Dol., Nat. Tijd. Ned. Ind. XVII, 80, ♂ (*Cylindrotoma*) (1858).

Ost. Sack., Berl. Ent. Zeits., XXXI, 228, ♂ ♀: Brun., Rec. Ind. Mus. VI, 235: Ender., Zool. Jahr. XXII, 84.

Amboina, Insel Obi. *Type* in Vienna Museum, damaged.

*mirabilis* de Meij., Tijds. v. Ent. LVIII, 104, fig. 1, wing (1915).

*Id.*, Nov. Guin. Res. XIII, 51 (1915).

Papua.

Sub-family *TIPULINÆ*.

Section CTENOPHORINI.<sup>1</sup>

**Xiphura**, Brullé.

Ann. Soc. Ent. Fran. I, 206 (1832).

GENOTYPE, *Tipula atrata* L., the original species.

*indica* Brun., Rec. Ind. Mus. XV, 257, pl. viii, 1, antenna (1918)

Darjiling 6900 ft., 1-vi-17. A perfect unique ♂ in my own collection, taken by me.

**Ctenophora**, Mg.

Illig. Mag II, 263 (1803).

Sch., F. Austr. II, 498: Ost. Sack., Berl. Ent. Zeits. XXX, 164: Brun., Rec. Ind. Mus. VI, 235: Fauna Brit. Ind., 288: *Auctt.*

GENOTYPE, *Tipula flaveolata* F., designated by Rondani, 1856.<sup>2</sup>

*Tanyptera*, Latr., Nouv. Dict. Hist. Nat., 428 (1804).

<sup>1</sup> For characters, *v.* Ost. Sack., Berl. Ent. Zeits., xxx, 164, *et seq.*: and Brun., Fauna, 287.

<sup>2</sup> A little investigation will, I think, show that Coquillett's desire (1910) to restrict *Ctenophora* to *atrata* L. and its allies, and to set up *Phoroctenia* for the remaining species of *Ctenophora* in a wide sense, is wrong. He accepts Latreille's designation (1810) of *atrata* L. as type species of *Ctenophora*, which would have therefore left the bulk of the remaining species of the genus without a name, but there may be a flaw in his reasoning which will save the name of Meigen's genus for the group of species so long associated with it. Meigen in 1803 (Illig. Mag.) set up *Ctenophora* for *pectinicornis* L., *bimaculata* L., *atrata* F., and *flaveolata* F. Two years later Latreille erected *Tanyptera* for *atrata* L. So far as can be judged at this length of time, the genus was not favourably received, all the species being still retained in *Ctenophora*. In 1810 Latreille apparently himself acquiesced in this view as he selected *atrata* as the type of *Ctenophora*. In 1832 Brulle proposed *Xiphura* with *atrata* as the sole species, and in 1833 *Dictenidia* with *A. bimaculata* L. as type and these genera were practically universally adopted. Rondani in his list of Italian genera (Prodrome 1856) accepted *atrata* as type species of *Xiphura* and selected *flaveolata* (one of Meigen's four original species) as type of *Ctenophora*, and this view, so far as I am aware, was not challenged. By general consent for the last three quarters of a century, *atrata* has been regarded as not congeneric with the other species of the old *Ctenophora*, and the only question to settle is in which genus it should be placed. Meigen selected no type species out of the four on which he founded *Ctenophora*; therefore Latreille in selecting *atrata* as type of his *Tanyptera* (1805) has undoubtedly prior claim to the species, as it was the sole exponent of his genus, and the fact that the dipterologists of his day apparently ignored the genus does not prevent it being resuscitated if originally legitimately founded. Therefore when Latreille himself, in 1810, acquiescing in the suppression of *Tanyptera*, selected *atrata* as the type species of *Ctenophora*, he went beyond his rights. *Xiphura* in 1832, also founded on *atrata* alone becomes an absolute synonym of *Tanyptera*. Rondani, recog-

*xanthomelana* Walk., List. Dipt. Brit. Mus. I, 77, ♀ (1848).

Ost. Sack., Berl. Ent. Zeits. XXX, 166: Wulp. Tijd. v. Ent. XXVIII, 81. Brun., Rec. Ind. Mus. VI, 235, 241: Fauna Brit. Ind., 289. East India. Type in British Museum.

This species is retained under *Ctenophora* but the ♂ is not known and it probably belongs to *Pselliophora*. *C. melanura*, Walk. (List Dipt. Brit. Mus. I, 78; 1848) is a *Sargus* (*Stratiomyidae*). Alexander now suggests that *xanthomelana* is probably identical with *Prionota nigriceps*, Wulp. If so, of course Walker's name takes precedence.

#### *Pselliophora*, Ost. Sack.

Berl. Ent. Zeits. XXX, 165 (1886).

de Meij., Tijd. v. Ent. LIV, 63, tab. Javan spp.: Brun., Rec. Ind. Mus. VI, 236, tab. orient. spp. and notes: *id.*, Fauna Brit. Ind., 290.

GENOTYPE, *Tipula laeta* F., by my own designation (Fauna, 290).

*laeta* Fab., Ent. Syst. IV, 239 (*Tipula*) (1792).

*Ctenophora laeta*, *id.*, Syst. Antl., 19: Wied., Dipt. Exot. I, 20 (*Ctenophora*): *id.*, Auss. Zweifl. I, 38<sup>1</sup>: Macq., Dipt. Exot. I, 1, 42, pl. ii, 11 (full ins.): Brun., Rec. Ind. Mus. VI, 240, notes: XV, 257: *id.*, Fauna Brit. Ind., 291, ♂ ♀, pl. vi, 9, antenna (*Pselliophora*).

Widely distributed in India and the East; Dehra Dun, Purneah, Sind, Calcutta, Bangalore, Travancore, Bombay, Goa, Nilgiri Hills, Ceylon. A variable species.

Type presumably in Fabricius's collection.

var. *trilineata* Brun., Rec. Ind. Mus. VI, 240 (1911).

*Id.*, Fauna Brit. Ind., 292, pl. v, 2, wing, var.

Unique type of this variety in Indian Museum.

*ardens* Wied., Dipt. Exot. I, 20, ♀ (*Ctenophora*) (1821).

*Id.*, Auss. Zweifl. I, 39, ♀ (*Ctenophora*).

*Pselliophora*, *id.*, de Meij., Tijd. v. Ent. LIV, 61: Brun., Rec. Ind. Mus. VI, 238 (♂ noted): Alex., Proc. U.S. Nat. Mus. XLIX, 179, pl. xlv, 31, wing.

Batavia and environs, x [*Jacobson*]; Lombok; Sumatra; Buitenzorg, iii-09 [*Bryant* and *Palmer*].

Type (a ♀) in Wiedemann's collection: the ♂ was apparently first described by me from a specimen in the Vienna Museum.

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nizing *atrata* as not congeneric with the other species of *Ctenophora*, retained *Xiphura* with *atrata* as type, and in selecting *flaveolata* F. as type of *Ctenophora* was entirely within his rights, and the latter species must be accepted as genotype of the genus in its generally accepted sense. As regards *Tanyptera* versus *Xiphura*, on the grounds of continuity before priority I retain the latter as it has been recognized for nearly ninety years. *Ctenophora* is almost certainly not oriental, but it is as well to keep the name in the lists until the discovery of the ♂ of Walker's *xanthomelana* decides this question.

<sup>1</sup> Some authors erroneously report a figure of this species by Wiedemann.

**compedita** Wied., Dipt. Exot. I, 21, ♀ (*Ctenophora*) (1821).

*Id.*, Auss. Zweifl. I, 39, ♀ [*Ctenophora*].

*Pselliophora, id.*, Wulp, Tijd. v. Ent. XXIII, 156; pl. x, 1: *id.*, Notes Leyd. Mus. VI, 25: Brun., Rec. Ind. Mus. VI, 238; IX, 257: Alex., Proc. U.S. Nat. Mus. XLIX, 180, pl. xlv, 32, wing.

Darjiling, 1000—3000 ft. [*Lord Carmichael's* colln.]; Semarang, xi [*Jacobson*]; Depok, iii, 09 [*Bryant and Palmer*]; Celebes; Aru.

*Type* of species (a ♀) in Westermann's coll.; ♂ in Leyden Museum.

**fuscipennis** Macq., Dipt. Exot., Supp. I, 10, pl. i, 4 wing (*Ctenophora*) (1846).

*Pselliophora, id.*, Ost. Sack., Berl. Ent. Zeits. XXX, 172: Brun., Rec. Ind. Mus. VI, 238; IX, 254.

*Ctenophora javanica*, Dol., Nat. Tijd. Ned. Ind. X, 406, pl. ix, 1, full ins. ♂ (1856): Wulp, Tijd. v. Ent. XX, 156, ♂ noted, pl. x, 2, wing: Brun., Rec. Ind. Mus. VI, 238.

Djokjokarta, Java.

*Type* in Bigot coll. A ♂ and ♀ from the Darjiling District in the Indian Museum appear to be this species, also two specimens with a red thorax in Lord Carmichael's collection from Singla, 1500 ft. and Darjiling District, 1000—3000 ft. Originally recorded erroneously by Macquart from Brazil.

**taprobanes** Walk., List Dipt. Brit. Mus., I, 77, ♀ (*Ctenophora*) (1848).

Brun., Rec. Ind. Mus. VI, 240, ♂ noted: *id.*, Fauna Brit. Ind., 293, ♀, pl. v. 3, wing, pl. vi, 10, 11, ♂ genitalia.

Ceylon, not uncommon. May to September.

*Type* ♀ in British Museum.

**fumiplena** Walk., Ins. Saund Dipt., pt. v. 449, ♀ (*Ctenophora*) (1856).

Ost. Sack., Berl. Ent. Zeits. XXX, 170: Brun., Rec. Ind. Mus. VI, 240; XV, 258: Edw., Ann. Mag. Nat. Hist. (8) XVIII, 256, notes.

China.

*Type* ♀ in British Museum. This species is probably out of place in this Catalogue as apparently it comes from North China, from whence Mr. Edwards informs me the ♀ ♀ in the British Museum come.

**chrysophila** Walk., Proc. Linn. Soc. Lond. I, 6, ♀ (*Ctenophora*) (1857).

Brun., Rec. Ind. Mus. VI, 238: *id.*, Fauna Brit. Ind., 295. ♀

Bhim Tal, 19—22-ix-06 [*Annandale*], Singapore; Tura, Assam, viii-17 [*Kemp*].

*Type* ♀ in British Museum, the ♂ apparently still unknown.

**incunctans** Walk., Proc. Linn. Soc. Lond. IV, 93, ♂ ♀ (*Ctenophora*) (1860).

- Wulp., Notes Leyd. Mus. VI, 255 (*Ctenophora*): *id.*, Cat. Dipt. S. Asia, 37, note: Ost. Sack., Berl. Ent. Zeits. XXX, 171: Brun., Rec. Ind. Mus. VI, 239 (varieties noted).  
*Ctenophora velutina*, Wulp, Notes Leyd. Mus. VI, 256, ♀ Celebes, Tondano, Saugir.  
*Type* in British Museum, in good condition.
- gaudens** Walk., Proc. Linn. Soc. Lond. IV, 93, ♂ ♀ (*Ctenophora*) (1860).  
 Ost. Sack., Ann. Mus. Gen. XVI, 399 (*Ctenophora*): *id.*, Berl. Ent. Zeits. XXX, 171: Brun., Rec. Ind. Mus. VI, 238: IX, 257, pl. xiv, 8, ♂ genitalia.  
 Celebes.  
*Type* ♂ ♀ in British Museum. A ♂ in the Indian Museum, from Singla, Darjiling District, v-13, may be this species.
- suspirans** Ost. Sack., Berl. Ent. Zeits. XXVI, 93, ♂ (*Ctenophora*) (1882).  
 Brun., Rec. Ind. Mus. VI, 241.  
 Philippines. Bezzi (Phil. J. Sci. XII, Sect. D, p. 109, ♂ ♀) describes a variety from three localities in Luzon.  
*Type*, location unknown.
- idalia** Ost. Sack., Berl. Ent. Zeits. XXVI, 94, ♂ (*Ctenophora*) (1882).  
 Philippines.  
*Type*, a unique ♂; location unknown.
- dolens** Ost. Sack., Berl. Ent. Zeits. XXVI, 94, ♂ ♀ (*Ctenophora*) (1882).  
 Brun., Rec. Ind. Mus. VI, 240.  
 Philippines.  
*Types*, location unknown.
- curvipes** Wulp, Notes Leyd. Mus. VI, 254, ♀ (*Ctenophora*) (1884).  
 Brun., Rec. Ind. Mus. VI, 238.  
 Gorontalo.  
*Type*, a unique ♀, in Leyden Museum.
- annulosa** Wulp, Notes Leyd. Mus. VII, 1, ♀ (*Ctenophora*) (1885).  
 Brun., Rec. Ind. Mus. VI, 241.  
 Java.  
*Type*, a unique ♀, in Leyden Museum.
- rubra** Ost. Sack., Berl. Ent. Zeits. XXX, 171, ♂ (1886).  
 Brun., Rec. Ind. Mus. VI, 238: Alex., Proc. U.S. Nat. Mus. XLIX, pl. xlv, 33, wing.  
 Laos, Siam [*Mouhot*]; Buitenzorg, iii-09; 4-iv-09 [*Bryant and Palmer*].  
*Type* in Berlin Museum.
- nigrithorax** Wulp in de Meij., Bijd. tot de Dierk. XVII, 87, ♂ ♀ (1904).  
 Brun., Rec. Ind. Mus. VI, 238.  
 Java.  
*Types* in Amsterdam Museum.

- insignis** de Meij., *Bijd. tot de Dierk.*, XVII, 87, ♂ (1904).  
 Brun., *Rec. Ind. Mus.* VI, 241.  
 Java (Tosari).  
*Type* in Amsterdam Museum, a unique ♂
- stigmatica** de Meij., *Bijd. tot de Dierk.* XVII, 88, ♀, pl. viii, 1 full ins. (1904).  
 Brun., *Rec. Ind. Mus.* VI, 238.  
 Lahago, Central Nias Island.  
*Type*, a unique ♀, in Amsterdam Museum.
- bifascipennis** Brun., *Rec. Ind. Mus.* VI, 241, ♀ (1911).  
 Shanghai.  
*Type*, a unique ♀, labelled "Consul Haas" in Vienna Museum. Possibly out of place in this Catalogue.
- divisa**, *id.*, *loc. cit.*, 242, ♂ (1911).  
 Edw., *Ann. Mag. Nat. Hist.* (8) XVIII, 254, notes: Brun., *Rec. Ind. Mus.* XV, 258.  
 "East Indies, 1892" [*Felder*]; Pashok Spur, Darjiling Distr. [*Lister*]; Sikkim, v, 96; Bhutan; Lat Bua, Kao, East Siam [*C. Boden Kloss*].  
*Type* (a ♀) in Vienna Museum.
- immaculipennis** Brun., *Rec. Ind. Mus.* VI, 243, ♀ (1911).  
*Id.*, *Fauna Brit. Ind.* 294, ♀, pl. vi, 7, full ins., 8, antenna. Sylhet [*Hall*].  
 Unique *type* in Indian Museum.
- terminalis**, Brun., *Rec. Ind. Mus.* VI, 244, ♀ (1911).  
 Montes Mauson, 2000—3000 ft., Tonkin, iv or v [*Fruhstorfer*].  
 Unique *type* in Vienna Museum.
- ctenophorina** Riedel, *Ent. Mitt. Berl.* II, 273 (1913).  
 Kankau (Koshun), Formosa, v, vi, vii, ix, 1912.  
 Edwards records a ♂ in the British Museum from Koannania, S. Formosa, 15 vi-06 [*Wileman*].  
*Types* and *cotypes* in *Deuts. Ent. Mus. Berl.*, *cotypes* in Riedel collection.
- strigipennis** de Meij., *Tijd. v. Ent.*, LVI, Supp. p. 5, ♀ (1913) (Mar. 1914).  
 Java.
- speciosa** Edw., *Ann. Mag. Nat. Hist.* (8) XVIII, 254, ♂ (1916).  
 Khasi Hills, Assam.  
 Unique *type* in British Museum.
- semirufa** Edw., *loc. cit.*, 255, ♀ (1916).  
 Taihoku, Formosa, xi-09 [*Nitobe*].  
 Unique *type* in British Museum.
- luctuosa** de Meij., *Tijd. v. Ent.* LIX, 199, ♀ (1916).  
 Gunung Susuruh, Preanger, Java [*Corporaal*].  
 Unique *type* in Amsterdam Museum.
- praefica** Bezzi, *Phil. Jour. Sci.* XII, Sect. D, 110, ♂ (1917).  
 Mindanao, Phil. Is. [*Baker*].

**tripudians** *id.*, *loc. cit.*, III, ♀ (? *praefica* ♀) (1917).

Laguna, Phil. Is. [*Baker*].

**approximata** Brun., Rec. Ind. Mus. XV, 259, ♀ (1918).

Talewadi, N. Kanara Dist., 3--10-x-16 [*Kemp*].

Unique *type* in Indian Museum.

**flavofasciata** *id.*, *loc. cit.*, 259, ♂ ♀, pl. viii, 2, abdomen, 3, wing (1918).

Above Tura, Garo Hills, Assam, 3500--3900 ft., vii-17 [*Kemp*].

*Types* in Indian Museum.

**aurantia**, *id.*, *loc. cit.*, 260, ♀ (1918).

Above Tura, Garo Hills, Assam, 3500--3900 ft., viii-17 [*Kemp*].

*Type* in Indian Museum.

**latifascipennis**, *id.*, *loc. cit.*, 260, ♀ (1918).

Pollibetta, Coorg, S. India, 24-x—16-xi-15 [*Fletcher*].

*Type*, presented to British Museum.

? **P. elongata** Edw., Ann. Mag. Nat. Hist. (8) XII, 202, ♀ (1913).

Hakgala, Ceylon, 4500 ft., v-1911.

Unique *type* in British Museum.

### Prionota, Wulp.

Notes Leyd. Mus. VII, 1 (1885).

Edw., Jour. Fed. Malay Sts. Mus. VIII, 15 (1919).

*Prionocera*, Ender., nec Lw., Zool. Jahr. XXXII, 28 (1912).

GENOTYPE, *P. nigriceps*, sp. nov., the original species.

**nigriceps** Wulp, Notes Leyd. Mus. VII, 2, ♂ ♀ (1885).

*Id.* Tijds. v. Ent. XXVIII, 82, pl. iv, 3, full ins.: Brun., Rec. Ind. Mus. VI, 245 [*Prionota*]: Alex., Proc. U.S. Nat. Mus. XLIX, 181, pl. xlv, 34, wing; pl. xlvii, 50, antenna, part, 51, 52, genitalia ♂ [*Prionota*].

Java; Mt. Salak, Java, 15-v-09 [*Bryant and Palmer*]; Tjibodas, Mt. Gedé, Java, 20-iv-09 [*Bryant and Palmer*].

*Type* in Leyden Museum. Alexander (*loc. cit.*, *antea*) says *Prionota* and *Prionocera* (*Stygeropsis*, Lw.) are distinct. Kieffer uses *Prionota* again in Cecidomyidae in 1894. Edwards recently states that *Ctenophora xanthomelana*, Walk., is probably identical with *nigriceps*.

**serraticornis** Brun., Rec. Ind. Mus. VI, 242, ? ♂ (*Pselliophora*) (1911).

*Id.*, Fauna Brit. Ind., 296, ? ♂

Ceylon, 1861 [*Felder*].

*Type*, a unique specimen with tip of abdomen missing, in Vienna Museum. Edwards recently refers my species here.

**flaviceps** Ender., Zool. Jahr. XXXII, 28, ♀ (*Prionocera*) (1912).

Sumatra.

Unique *type* in Stettin Zoological Museum.



**elongata** Edw., Ann. Mag. Nat. Hist. (8) XII, 202, ♀ (? *Pseliophora*) (1913).  
Hakgala, Ceylon, 4500 ft., v-1911.  
Unique *type* in British Museum.

## Section TIPULINI.

**Ctenacroscelis**, Ender.

Zool. Jahr. XXXII, 1 (1912).

GENOTYPE, *C. dohrnianus* Ender., sp. nov.

*Ctenacroscelis*, Brun., Rec. Ind. Mus. XV, 261.

**praepotens** Wied., Auss. Zweifl. I, 40 (*Tipula*) (1828).

*Tipula*, *id.*, Macq., Dipt. Exot., Supp. 3, 7, pl. i, 1: Ost. Sack., Ann. Mus. Gen. XVI, 399: *id.*, Berl. Ent. Zeits. XXX, 183: Brun., Rec. Ind. Mus. VI, 246.

*Ctenacroscelis praepotens*, Alex., Proc. U.S. Nat. Mus. XLIX, 182, pl. xlv, 35, wing.

East Indies; Java; Sumatra, Amboina; Mt. Salak, 15-v-09, Pelaboean Ratoe [both Java and *Bryant* and *Palmer*].

*Type* in Leyden Museum, Wiedemann quoting no sex, but both sexes are present among the old specimens in that collection.

**monochrous** Wied., Auss. Zweifl. I, 41, ♀ (*Tipula*) (1828).

Alex., Proc. U.S. Nat. Mus. XLIX, 182, pl. xlv, 36, wing; xlvii, 53, 54, genitalia ♂

*Tipula monochroa*, Macq., Dipt. Exot., Supp. 3, 6, pl. i, 2, wing: Brun., Rec. Ind. Mus. VI, 246.

Gunung Ungaran, Java, v [*Leeuwen*]; Mt. Salak, 15-v-09; Pelaboean Ratoe, x, 09 [both Java and *Bryant* and *Palmer*]; Sumatra; Celebes.

*Type* in Leyden Museum. Wiedemann mentions only the ♀, but both sexes are present in the old collection.

**umbrinus** Wied., Auss. Zweifl. I, 49, ♂ (*Tipula*) (1828).

Alex., Proc. U.S. Nat. Mus. XLIX, 182, pl. xlv, 37, wing; xlviii, 55, 56, genitalia ♂

*Tipula umbrina*, Wulp, Tijd. v. Ent. XXIII, 158: *id.*, Notes Leyd. Mus. VII, 4: Ost. Sack., Ann. Mus. Gen. XVI, 399: Brun., Rec. Ind. Mus. VI, 246: Edw., Jour. Fed. Malay Sts. Mus. VIII, 11.

*Tipula castanea*, Macq., Dipt. Exot. I, 1, 54, ♂ (1838).

*Tipula congruens*, Walk., Proc. Linn. Soc. Lond. V, 231, ♀ (1861).

East Indies; Sumatra; Sinabang (Simalur Is. near Sumatra), iii, v, vii; Celebes; Obi Island; Dorey; Papua; Waigou, i; Java, var. locs., i, iv, v, x [*t. de Meij.*]; Tjibodas, Mt. Gede, 20-iv-09; Mt. Salak, 15-v-09; Depok, 10-ii-09 [all Java and *Bryant* and *Palmer*], Siolak Daras, Sumatra, 3000 ft., Sungei Penoh, Korinchi Valley, Sumatra, 2600 ft., iii, 14.

*Type* in Leyden Museum. Edwards recently doubts the identity of *castanea*, Macq., with this species.

**infidens** Walk., Proc. Linn. Soc. IV, 92, ♀ (*Tipula*) (1860).

Brun., Rec. Ind. Mus. VI, 247.

Ceram, Macassar.

*Type* in British Museum in fair condition. Walker described it as a ♀ from Makessar, but the specimen labelled "type" is a ♂ from Ceram. Some error seems to have crept in here, which probably cannot now be rectified. I have to thank Mr. Edwards and Mr. Hill for these notes.

**majesticus** Brun., Rec. Ind. Mus. VI, 248, ♂ ♀ (*Tipula*) (1911).

*Id.*, Fauna Brit. Ind., 303, ♂ ♀ (*Tipula*).

N.E. Frontier, India, 4000 ft., 15-iii-12 [*Kemp*]; Naini Tal; Darjiling, 3-9-vi-09, *type* ♂ [*Howlett*]; Singla, vi-12; Tindharia, 3000 ft., viii-12 [both Darjiling Distr. and Lord Carmichael collection]; Kalimpong, 600-4500 ft. [*Gravelly*]; Sureil, iv, v-17 [*Kemp*]; Pashok, 26-v-14-vi-16 [*Gravelly*]; Darjiling District, 1000-3000 ft. [Lord Carmichael coll.]; Kurseong, 24-vi-10, *type* ♀ [*Annandale*]; Nilgiri Hills, 3500 ft., ix-10 [*Andrewes*]; Talewadi, N. Kanara Dist. [*Kemp*]; between Kalek and Misshing, 4000 ft., Abor Exped. [*Kemp*]; Mazbat, Mangaldai, Assam [*Kemp*]; Ginting Bidai, 2000 ft., Selangor-Pahang Frontier, Fed. Malay States, iv-17 [*Boden Kloss*].

*Type* ♂ in Pusa coll., *type* ♀ in Indian Museum. A specimen of *majestica* in the Indian Museum collection measures almost exactly 100 mm. in full expanse of wings which easily surpasses both my *T. carmichaeli* and *Cten. rex*, Alex.

**fulvolateralis** Brun., Rec. Ind. Mus. VI, 249, ♂ (*Tipula*) (1911).

*Id.*, Fauna Brit. Ind., 304, ♂ ♀, pl. vi, 15, genitalia (*Tipula*): *id.*, Rec. Ind. Mus. XV, 263 (*Tipula*).

Himalayas, common in most localities from 600 ft. upwards, March to October; Mussoorie, ix-06; Bhim Tal, 4500 ft., 19-22-ix-06 [*Annandale*]; Sikkim; Sureil; Kalimpong; Singla; Pashok; Soom; Kurseong; Dhikala, Gahrwal Distr., W. Himalayas, 10-iii-10; Shillong, 5500-6400, 29-viii-5-ix-15 [*Kemp*]; Mazbat, Mangaldai Distr., Assam, 11-15-x-10, *type* ♀ [*Kemp*].

*Type* ♂ and ♀ in Indian Museum. I have stated my *T. fulvolateralis* to be a true *Tipula*, but at the time of writing I had no specimens for comparison and wrote from memory, but a closer inspection of several specimens proves the species to belong here. Alexander thinks my *fulvolateralis* may be synonymous with *umbrinus*, Wied.

**flavus**, *id.*, Rec. Ind. Mus. VI, 252, ♂ (*Tipula*) (1911).

*Tipula*, *id.*, Fauna Brit. Ind., 308, ♂: Rec. Ind. Mus. IX, 257, ♀ noted.

Sikkim, iii or iv, *type* ♂ [*Fruhstorfer*].

*Type* in Vienna Museum. The specimens referred to this species by me recently (Rec. Ind. Mus. IX, 257) are *flavoides*, Brun., the *type* ♂ being the only example of *flavus* known to me

**ornatithorax**, *id.*, Rec. Ind. Mus. VI, 258 ♂ ♀ (*Tipula*) (1911).

*Id.*, Fauna Brit. Ind., 331, ♂ ♀ (*Tipula*).

Darjiling, 3—9-vi-09, *type* ♂ [*Howlett*]; 21—29-v-06 [*Annandale*]; Kurseong, 5000 ft. [*Annandale*]; Pashok, 2000—2500 ft. [*Gravelly*]; Bhowali, Kumaon, 5700 ft., vii-09, *type* ♀, and 10-vii-10 [*Imms*]. Recorded doubtfully from Sumatra.

*Type* ♂ in Pusa coll., *type* ♀ in Indian Museum.

**ochripes**, *id.*, Rec. Ind. Mus. VI, 260, ♂ ♀ (*Tipula*) (1911).

*Id.*, Fauna Brit. Ind., 334, ♂ ♀ (*Tipula*).

Pashok Spur, Darjiling District [*Lister*]; Castle Rock, N Kanara Dist., 11—26-x-16 [*Kemp*]; Nilgiris, S. India, 6000 ft. [*Andrewes*]; Kandy, 20-v-10, *type* ♂ [*Gravelly*]; 31-x-09, *type* ♀ [*Green*]; Man-San, N. Hsenwi, Shan States, Upper Burma, 2400 ft., ii to iv-15 [*Coggin-Brown*].

*Type* ♂ ♀ in Indian Museum, *cotype* in Vienna Museum from Ceylon.

**dives** Brun, Fauna Brit. Ind. 307, ♂ (*Tipula*) (1912).

Kurseong, 23-vi-10 [*Annandale*]; Soom, Darjiling District, 5000—7000 ft., 14-vi-14 [*Gravelly*].

*Type* in Indian Museum.

**carmichaeli** Brun., Rec. Ind. Mus. IX, 257, ♂; pl. xiv, 6, full ins., 9, genitalia (*Tipula*) (1913).

Sureil, Darjiling District, vi-13; captured by Lord Carmichael in a bath-room.

*Type* in Indian Museum. A second specimen was recently seen by me, in the possession of Capt. Balfour.

**borneensis** Brun., Rec. Ind. Mus. XV, 263, *nom. nov.* for *pallida*, Walk., preocc. Lw., 1863 (*Tipula*) (1918).

*Tipula pallida*, Walk. nec Lw., Proc. Linn. Soc. Lond. VIII, 105 (1865).

Brun., Rec. Ind. Mus. VI, 247: de Meij., Nova Guin. Res. IX, 311. Papua, Riverkamp, ii; Alkmaar, x, Regen Is., ix, x (all Papua).

*Type* in good condition in British Museum.

**flavoides**, *id.*, *loc. cit.*, 267, ♂ ♀, pl. viii, 5, antenna (as “*sp. nov.*” only, *lapsus*) (*Tipula*) (1918).

Singla, Darjiling District, 1500 ft., v-13; vi-12; Shoirakund, Assam-Bhutan Froniter, 18—22-x-12; Darjiling, 1000—3000 ft., vi-12; above Tura, Garo Hills, 3500—3900 ft., ix-17 [*Kemp*]; Sidapur, Coorg, S. Ind., 16-v-17.

*Types* in Indian Museum.

**dohrnianus** Enderl., Zool. Jahr. XXXI, 1, ♀, fig. A, wing (1912).

Soekaranda, Sumatra.

*Type*, a unique ♀, in Stettin Zoolog. Museum.

**sikkimensis**, *id.*, *loc. cit.*, 4, ♂ (1912).

Darjiling.

*Type*, a unique ♂, in Stettin Zoolog. Mus.

**sumatranus**, *id.*, *loc. cit.*, 5, ♀ (1912).

Soekaranda, Sumatra.

*Type*, a unique ♀, in Stettin Zoological Museum.

**rex** Alex., Insec. Insit. Menst. V, 21, ♂ (1917).

Brun., Rec. Ind. Mus. XV, 261.

Taungoo Distr., Burma.

*Type* in Entomological collection, Philadelphia, *cotype* in Alexander's coll. *Rex* and my *Tipula carmichaeli* are probably amongst the largest species of diptera known.

**penumbrinus** Edw., Jour. Fed. Malay Sts. Mus. VIII, 11, ♀ (1919).

Siolak Daras, Sumatra, 3000 ft.

### Tipula, L.

Syst. Nat. Ed. X, 585 (1758).

Sch., F. Austr., II, 509: de Meij., Tijd. v. Ent. LIV, 63, tab. Java sp.: Brun., Rec. Ind. Mus. VI, 246; XV, 262, notes Orient. spp.: *id.*, Fauna Brit. Ind., 297.

GENOTYPE, *T. oleracea* L., by universal acceptance.

*Tipulodina*, Ender., Zool. Jahr. XXXII, 30 (1912):

Brun., Rec. Ind. Mus. XV, 270, 322, criticism.

GENOTYPE, *Tipula magnicornis* Ender., sp. nov., by original designation.

**pedata** Wied., Dipt. Exot. I, 23, ♀ (1821).

*Id.*, Auss. Zweifl. I, 45, ♀: Wulp., Dipt. Sum. Exped., 10: Ost. Sack., Berl. Ent. Zeits. XXVI, 92: de Meij., Tijd. v. Ent. LIV, 64: Brun., Rec. Ind. Mus. VI, 246: Alex., Proc. U.S. Nat. Mus. XLIX, 183, pl. xlv, 38, wing; XLVIII, 57—60, genitalia ♂

Java, var. locs., i, xi, xii; Buitenzorg, iii, 09; 10-iv-09; Pelaboean Ratoe, 12-x-09; Mt. Salak, 3000 ft., 15-v-09 [all three Java and *Bryant* and *Palmer*]; Sumatra; Borneo; Philippine Is.; Assam; Ceylon.

*Type*, a ♀, in Westermann's collection.

**venusta** Walk., List Dipt. Brit. Mus. I, 64 (1848).

Brun., Rec. Ind. Mus. VI, 246: *id.*, Fauna Brit. Ind., 302, pl. v, 5, wing.

Sylhet; Siliguri; Calcutta [*Targett*]; Myitkyina, Upper Burma, 30-viii—1-ix-14 [*Fletcher*]; Tura, Garo Hills, Assam, viii-17 [*Kemp*].

*Type* recorded originally as in the British Museum, sex unstated, but now no longer to be found there.

**reposita** Walk., List Dipt. Brit. Mus. I, 67, ♂ ♀ (1848).

Brun., Rec. Ind. Mus. VI, 246: Fauna, 315.

Nepal.

*Type* ♂ ♀ in British Museum, ♂ in fair condition, ♀ reduced to a fragment.

**melanomera** Walk., List Dipt. Brit. Mus. I, 68, ♂ (1848).

Brun., Rec. Ind. Mus. VI, 247; XV, 263: Brun., Fauna Brit. Ind., 330.

Sureil, 5000 ft., iv—v-17 [*Kemp*]; Maymyo, Upper Burma [*Fletcher*]; Nepal.

*Type* in British Museum.

**vicaria** Walk., Ins. Saund. Dipt., pt. V, 444, ♂ (1856).

Brun., Rec. Ind. Mus. VI, 247: Fauna Brit. Ind., 332.

India, according to the *type*. Walker's description says East Indies.

*Type* in British Museum, too damaged for comparison. The name *vicaria* is preoccupied by Walker himself in 1848 for a South African species. The present species appears to be represented by the original specimen only, which is useless. If subsequently identified from the description a new name can be set up.

**vilis** Walk., Proc. Linn. Soc. I, 108, ♂ (1857).

Brun., Rec. Ind. Mus. VI, 247: de Meij., Tijd. v. Ent. LIV, 69 (♀ descr.).

Sarawak, *type* ♂; Buitenzorg, iii; Gunung Ungaran, xii [both Java and *Jacobson*].

*Type* in British Museum, beyond recognition.

**inordinans** Walk., Proc. Linn. Soc. IV, 93, ♂ (1860).

Brun., Rec. Ind. Mus. VI, 247.

Macassar.

*Type*, a unique ♂, in British Museum, in good condition.

**fumifinis** Walk., *loc. cit.*, V, 145, ♂ (1861).

Brun., Rec. Ind. Mus. VI, 247, notes.

Amboina.

*Type*, a unique ♂, in British Museum, in good condition. Walker thought his species identical with *longicornis*, Dol., but Van der Wulp considered them distinct.

**punctifrons** Rond., Ann. Mus. Gen. VII, 463 (1875).

Brun., Rec. Ind. Mus. VI, 247.

Sarawak. Location of *type* uncertain, said to be in Genoa Museum.

**serrata** Wulp, Notes Leyd. Mus. VII, 5, ♂ (1885).

Brun., Rec. Ind. Mus. VI, 247.

Seharan, Sumatra.

*Type* in Leyden Museum, also a ♀ from Sumatra in same collection.

**pilosula** Wulp, Notes Leyd. Mus. VII, 5, ♂ (1885).

de Meij., Tijd. v. Ent. LIV, 67: Brun., Rec. Ind. Mus. VI, 247.

Java; Gunung Kenepai; Borneo.

*Type* in Leyden Museum.

**leucopyga** Wulp, Notes Leyd. Mus. VII, 6, ♂ ♀ (1885).

*Id.*, Tijd. v. Ent. XXVIII, 84, pl. iv, 6: Brun., Rec. Ind. Mus. VI, 247.

Java; Depok, Java, ii [*Jacobson*]

*Types* ♂ ♀ in Leyden Museum.

**thibetana** de Meij., Bijd. tot de Dierk. XVII, 89, pl. viii, 2, 3, wing (1904).

Brun., Rec. Ind. Mus. VI, 248.

Tatsienlou, Thibet.

*Type* in Amsterdam Museum. Perhaps incorrectly included in this Catalogue but may occur in the Himalayas.

**omissinervis** de Meij., Nova Guin. Res. V, 71, fig. 4, wing, part (*Tanypremna*) (1906).

*Id.*, *loc. cit.*, IX, 312, note: Brun., Rec. Ind. Mus. VI, 268.

Wendesi, Papua, vi; Regen Is., Papua, ix—x-09; Waigou, i.

*Type* in Leyden Museum, *cotype* in Amsterdam Museum.

**cinctipes** de Meij., Tijd. v. Ent. LIV, 64, ♂ (1911).

Gunung Kenepai (Borneo, Pondok).

*Type*, a unique ♂, in Leyden Museum.

**gedehana**, *id.*, *loc. cit.*, 66, ♀ pl. iv, 47, wing (1911).

Alex., Proc. U.S. Nat. Mus. XLIX, 185, pl. xlix, 63, 64, genitalia ♂

Kraton des Gunung, Gedeh, Java [*Buttiker*]; Tjibodas, Mt.

Gede, Java, 4000, 8000, 9000 ft., ix-09 [*Bryant* and *Palmer*].

*Type* in Leyden Museum.

**cinereifrons**, *id.*, *loc. cit.*, 68, ♂, pl. iv, 48, wing (1911).

Java [*t. de Meijere*]; Sumatra [*t. Enderlein*].

*Type* in Leyden Museum.

**inconspicua**, *id.*, *loc. cit.*, 70, ♂, pl. iv, 49, wing (1911).

Wonosobo, Java, iv [*Jacobson*].

*Type* in Amsterdam Museum, a unique ♂

**walkeri** Brun., Rec. Ind. Mus. VI, 246, *nom. nov.* for (and notes on) *fulvipennis*, Walk., preocc. De Geer (1911).

*Tipula fulvipennis*, Walk., List. Dipt. Brit. Mus. I, 67 (1848).

Nepal.

*Type* in British Museum, sex unstated, valueless for comparison. De Geer's *fulvipennis*, a European species, was set up in 1776 and is synonymous with *lutescens*, F.

**schummeli** Brun., Rec. Ind. Mus. VI, 247, *nom. nov.* for *longicornis*, Dol. (1911).

*longicornis*, Dol., Nat. Tijd. Ned. Ind. XVII, 79 (1858).

Amboina.

*Type* in Vienna Museum; no sex stated. The name *longicornis*, preoccupied by Schummel in 1833 for a European species, and also used for some other species subsequently.

**fumifasciata** Brun., Rec. Ind. Mus. VI, 250, ♂ ♀ (1911).

*Id.*, Fauna Brit. Ind., 308, ♂ ♀, pl. v, 7, wing.

Ukhral, Manipur, 6400 ft., viii 18, *types* [Pettigrew]; Central China.

*Type* ♂ and ♀ in Indian Museum, *cotypes* in Vienna Museum.

**fumipennis**, *id.*, Rec. Ind. Mus. VI, 250, ♀ (1911).

*Id.*, Fauna, Brit. Ind., 305, ♀, pl. v, 6, wing.

Darjiling, 3—9-vi-09 [Howlett], *type*, 6000—7000 ft. [Gravelly]; 7000 ft. [Brunetti]; Mussoorie, vi-09.

*Type* in Pusa collection.

**pluto**, *id.*, Rec. Ind. Mus. VI, 251, ♀ (1911).

Tonkin (Montes Maussion, 2000—3000 ft., iv or v) [Fruhstorfer].

*Type*, a unique ♀, in Vienna Museum.

**cinerea**, *id.*, *loc. cit.*, 252, ♀ (1911).

*Id.*, *loc. cit.*, XV, 274.

Lombok, 2000 ft., v or vi-1896 [Fruhstorfer].

*Type* in Vienna Mus., a unique ♀

**sciariformis**, *id.*, Rec. Ind. Mus. VI, 259, ♀ (1911).

Tonkin [Fruhstorfer].

The unique ♀ *type* in Vienna Museum.

**demarcata**, *id.*, *loc. cit.*, 259, ♀ (1911).

*Id.*, Fauna Brit. Ind., 335, ♀

Kurseong, 4700—5000 ft [Annandale], Almora, Kumaon, 5000 ft. [Paiva], Kandy, v-1910, *type* [Green]; Peradeniya, 25-xii-01 [Dr. Uzel].

*Type* in Indian Museum, *cotype* from Peradeniya in Vienna Museum.

**himalayensis**, *id.*, Rec. Ind. Mus. VI, 252, ♂ ♀ (1911).

*Id.*, Fauna Brit. Ind., 315, ♂ ♀, pl. v, 11, wing, pl. vi,

16, 17, genitalia: Rec. Ind. Mus. XV, 262, allied spp.

Himalayas, the commonest species, generally distributed at all hill stations from east to west during summer and autumn, at least from Shillong to Mussoorie.

*Type* ♂ and ♀ in Indian Museum, *cotype* in my collection.

**robusta**, *id.*, Rec. Ind. Mus. VI, 254, ♂ (1911).

*Id.*, Fauna Brit. Ind., 319, ♂

Mussoorie, 22-vi-05 [Brunetti].

*Type*, a unique ♂, in my collection.

**elegans**, *id.*, Rec. Ind. Mus. VI, 255, ♀ (1911).

*Id.*, Fauna Brit. Ind., 323, ♀: *id.*, Rec. Ind. Mus. XV, 274.

Mussoorie, 18-vi-05 [Brunetti].

*Type*, a unique ♀, in my collection.

**interrupta**, *id.*, Rec. Ind. Mus. VI, 256, ♀ (1911).

*Id.*, Fauna Brit. Ind., 327, ♀

Darjiling, 3—9-vi-09 [Howlett].

*Type*, a unique ♀, in Pusa coll.

**nigroapicalis**, *id.*, Rec. Ind. Mus. VI, 257, ♂ ♀ (1911).

*Id.*, Fauna Brit. Ind., 328, ♂ ♀

- Darjiling, 16—20-x-05, *type* ♂ ♀, 10—16-x-05 [both *Brunetti*].  
*Type* ♂ ♀ and other specimens in my collection.
- divisa**, *id.*, Rec. Ind. Mus. VI, 261, ♂ (1911).  
*Id.*, Fauna Brit. Ind., 337, ♂  
 Darjiling, 3--9-vi-09 [*Howlett*].  
*Type*, a unique ♂, in Pusa collection.
- gracilis**, *id.*, Rec. Ind. Mus. VI, 262, ♀ (1911).  
*Id.*, Fauna Brit. Ind., 338, ♀  
 Darjiling, 7-x-05.  
*Type*, a unique ♀, in my collection.
- gracillima** Brun., Fauna Brit. Ind., 302, ♀ (1912).  
 Edw., Ann. Mag. Nat. Hist. (8) XII, 202 (1913): Brun., Rec. Ind. Mus. XV 262.  
 Peradeniya, 20-vii-10, *type* [*Gravelly*]: Cherambadi, Wynaad, S. India, x-13 [*Howlett*]; Parambikulam, Cochin, 1700—3200 ft., 16—24-ix-14 [*Gravelly*].  
*Type* in Indian Museum.
- princeps** Brun., Fauna Brit. Ind., 306, ♂ ♀ (1912).  
 Kurseong, 18—19-vi-10, at light [*Annandale*]; Darjiling, 7000 ft.: 1—10-vi-17 [*Brunetti*]; Soom, Darjiling District, 4000—5000 ft., 16-vi-14 [*Gravelly*].  
*Types* in Indian Museum.
- serricornis**, *id.*, *loc. cit.*, 309, ♂ ♀ (1912).  
 Western Himalayas, Naini Tal.  
*Types* in Indian Museum.
- pulcherrima**, *id.*, *loc. cit.*, 310, ♂ ♀; pl. v, 8, wing; pl. vi, 12, thorax, 13, genitalia (1912).  
 Darjiling, 3—9-vi-09 [*Howlett*]; v-13; Tura, Garo Hills, Assam, vii-17 [*Kemp*]; Bhowali, 5700 ft., 27-vi-10, *type* ♂, at light; vii-09, *type* ♀, 26-vi-10 [all *Imms*].  
*Types* in Indian Museum, *cotype* ♀ in Pusa coll.
- fuscinervis**, *id.*, *loc. cit.*, 312, ♀ pl. v, 9, wing (1912).  
 Kurseong, 21—29-v-06 [*Annandale*].  
*Type* in Indian Museum, a unique ♀
- patricia**, *id.*, *loc. cit.*, 313, ♀ (1912).  
 Kurseong, 26-vi-10 [*Annandale*].  
*Type* in Indian Museum, a unique ♀
- splendens**, *id.*, *loc. cit.*, 314, ♂, pl. v, 10, wing (1912).  
 Badrinath, Gahrwal Distr., 21-v-10 [*Imms*].  
*Type*, a unique ♂, in Indian Museum.
- tessellatipennis**, *id.*, *loc. cit.*, 317, ♂ ♀, pl. v, 13, wing (1912).  
 Naini Tal, 6400 ft., v or vi, 1893.  
*Types* in Indian Museum, a unique pair.
- marmoratipennis**, *id.*, *loc. cit.*, 319, ♀, pl. v, 13, wing (1912).  
 Darjiling, 24-iv-10, *type* [*Brunetti*]; 10-vi-17, 7-viii-09 [*Paiva*].  
*Type* in Indian Museum.



**quasimarmoratipennis**, *id.*, *loc. cit.*, 320, ♀, pl. v, 14, wing (1912).

Darjiling, 23-v-10, *type* [Brunetti]; Kurseong, 9-ix-09 [Annandale]; Ukhrul, Manipur, 6400 ft. [Pettigrew]; Tura, Garo Hills, Assam, ix-17 [Kemp]. *Type* in Indian Museum.

**griseipennis**, *id.*, *loc. cit.*, 321, ♂, pl. v, 15, wing (1912).

Badrinath, Gahrwal Distr., 27-v-10 [Imms]; Matiana [Annandale]. *Type* in Indian Museum.

**nigrotibialis**, *id.*, *loc. cit.*, 324, ♂ (1912).

Darjiling, 28-v-10 [Brunetti].

*Type* in Indian Museum.

**striatipennis**, *id.*, *loc. cit.*, 325, ♀, pl. v, 16, wing (1912).

Kurseong, 6-vii-08 [Annandale]. *Unique type* in Indian Museum.

**subtineta**, *id.*, *loc. cit.*, 326, ♀, pl. vi, 18, genitalia (1912).

Darjiling, 29-v-17, 2 and 8-vi-12 (all Brunetti); Kurseong, 7-ix-09 [Annandale]; Bhowali, 5-700 ft. [Imms]; Maupun, Khasi Hills [Warren]. *Type* in Indian Museum.

**continuata**, *id.*, *loc. cit.*, 328, ♂ ♀ (1912).

Darjiling, 25—29-v-10, *type* ♂ ♀; 16—20-x-05 [both Brunetti]; Chitral, N.W. Kashmir, 9500 ft. [Wall].

*Types* in Indian Museum.

**quadrinotata**, *id.*, *loc. cit.*, 330, ♀ (1912).

Darjiling [Paiva]; Ukhrul, Manipur, 6400 ft. [Pettigrew].

*Type* in Indian Museum.

**brunnicosta**, *id.*, *loc. cit.*, 332, ♂ ♀ (1912).

Simla, 7000 ft.; 11-v-08 [Annandale]; Theog, 8000 ft. [Annandale]; Kalighat, Gahrwal Distr., 6000 ft., 4-vi-10 [Imms].

*Types* in Indian Museum.

**tenuipes**, *id.*, *loc. cit.*, 333, ♀ (1912).

Sylhet [Hall]. *Unique type* in Indian Museum.

**flavescens**, *id.*, *loc. cit.*, 334, ♀ (1912).

Hakgalla, Ceylon, 29-ix-09 [Green].

*Unique type* in Indian Museum.

**munda**, *id.*, *loc. cit.*, 336, ♂ ♀ (1912).

Mussoorie, 18-vi-09; Darjiling, 23—29-v-10; 10-vi-17 [all Brunetti].

*Type* ♂ ♀ in Indian Museum, *cotype* ♂ ♂ in my collection.

**cinctoterminalis**, *id.*, *loc. cit.*, 338, ♀ (1912).

Kurseong, 7-ix-09, *type* [Annandale]; Bhowali, 15-vi-10 [Imms].

*Type* in Indian Museum.

**elegantula**, *id.*, *loc. cit.*, 339, ♂; pl. v, 17, wing (1912).

Almora, Kumaon, 5500 ft. [Paiva]; Castle Rock, N. Kanara Dist., ? ♀ [Kemp]; Shevaroy Hills, Yercaud, S. Ind., 4500 ft.

17—21-xii-13 [*Fletcher*]; Mazbat, Assam, 11—15-x-10 [*Kemp*]; Cherrapunji, Assam, 4400 ft., 2—8-x-14, incl. *type* [*Kemp*]; Shillong, x-16 [*Fletcher*]; 5500—6400 ft., 29-viii—5-ix-15 [*Kemp*]. *Type* in Indian Museum.

*coquilletti* Ender., Zool. Jahr., XXII, 7, *nom. nov.* for *nubifera* Coq.

nec. *nubifera*, Wulp (1912).

*nubifera*, Coq., Proc. U.S. Nat. Mus. XXI, 305 (1898).

Arisan, Formosa, 8000 ft., 10-x-12 [*Nitobe*]; also occurs in Japan.

*imperfecta*, *id.*, *loc. cit.*, 260, ♀ (1913).

Darjiling, 1000—3000 ft., iv-1912.

*Type*, a unique ♀ in fair condition, in Indian Museum.

*tropica* de Meij., Nova Guin. Res. IX, 311, ♀ (1913).

Regen Is., Papua, ix, x.

*Type* unique, in Amsterdam Museum.

*novae guineae*, *id.*, *loc. cit.*, 312, ♂ ♀ (1913).

Lorentz-Fluss, S.W. Papua, ix-09.

*Types*, a unique pair, in Amsterdam Museum.

*divergens*, *id.*, *loc. cit.*, 312, ♂ ♀ pl. x, 6, wing; 7, ♂ genitalia (1913).

Bivak Is., Papua, xii-09, i-10. *Types* in Amsterdam Museum.

*dentata*, *id.*, *loc. cit.*, 313, ♂ ♀ (1913).

Regen Is., Papua, 16-ii-10.

*Types*, a unique pair, in Amsterdam Museum.

*de meijerei* Edw., Trans. Zool. Soc. Lond. XX, 393, ♀, pl. xxxviii, 1, full ins. col. (1915).

Upper Utaqua Valley, 5000—10,000 ft., Dutch Papua, ii, iii-13, *type*.

*aetherea* de Meij., Tijd. v. Ent. LVIII, 7, ♀ (1915).

Laulo, viii; Sinabang vii, both Simalur Island, near Sumatra.

*Type* in Amsterdam Museum.

*sinabangensis*, *id.*, *loc. cit.*, 9, ♂ ♀ (1915).

Sinabang, Simalur Island, ii, near Sumatra.

*Type* in Amsterdam Museum.

*pumila*, *id.*, *loc. cit.*, 9, ♂ (1915).

Sinabang, Simalur Island, ii, near Sumatra.

*Type* in Amsterdam Museum.

*klossi* Edw., Ann. Mag. Nat. Hist. (8) XVII, 351, ♀ (1916).

Kedah Peak, 3200 ft., Malay Peninsula [*Stanton*].

*Type* in British Museum, *paratype* in Kuala Lumpur Museum.

*shirakii* Edw., *loc. cit.*, XVIII, 258, ♀ (1916).

Arisan, Formosa, 8000 ft., 10-x-12 [*Nitobe*]; Khasi Hills, Assam. *Type* in British Museum.

**rufomedia**, *id.*, *loc. cit.*, p. 259, ♂ ♀, pl. xii, 5—7, genitalia (1916).

Horisha, Formosa [*Maki*], "Formosa" [Brit. Mus. coll.].

*Type* in British Museum.

**umbrinoides** Alex., Proc. U.S. Nat. Mus. XLIX, 185, ♂, pl. xlvi, 39, wing; xlvii, 61, 62, ♂ genitalia (1916).

Mt. Salak, Java, 3000 ft., 4-vii-09 [*Bryant and Palmer*].

*Type*, No. 19,027, in U.S. Nat. Mus.

**sunda**, *id.*, *loc. cit.*, 186, ♂, pl. xlvi, 40, wing; xlix, 65, 66, ♂ genitalia (1916).

Tjibodas, Mt. Gedé, Java, 9000 ft. [*Bryant and Palmer*].

*Type*, No. 19,028, in U.S. Nat. Mus.

**flavicosta**, *id.*, *loc. cit.*, 187, pl. xlvi, 41, wing (1916).

Pelaboean-Ratoe, Java, 16-x-09 [*Bryant and Palmer*].

*Type*, No. 19,029, in U.S. Nat. Mus.

**tjibodensis**, *id.*, *loc. cit.*, 188, ♂ ♀, pl. xlvi, 42, wing; pl. 1, 68, 69, genitalia ♂ (1916).

Tjibodas, Mt. Gedé, Java, 9000 ft. [*Bryant and Palmer*].

*Type*, No. 19,030, in U.S. Nat. Mus.

**salakensis**, *id.*, *loc. cit.*, 189, ♂, pl. xlvi, 43, wing; xlix, 67, genitalia ♂ (1916).

Mt. Salak, Java, 1909 [*Bryant and Palmer*].

*Type*, No. 19,031, in U.S. Nat. Mus.

**gedericola**, *id.*, *loc. cit.*, 189, ♂, pl. xlvi, 44, wing; 1, 70, 71, 72, genitalia ♂ (1916).

Tjibodas, Mt. Gedé, Java, 5000 ft., 20-iv-09.

*Type*, No. 19,032, in U.S. Nat. Mus.

**gravelyi** Brun., Rec. Ind. Mus. XV, 264, ♂ (1916).

Darjiling, 7000 ft., 13-vi-14 [*Gravely*]; vii-12, E. Himalayas, [*Dracott*]. *Type* in Indian Museum.

**contigua**, *id.*, *loc. cit.*, 265, ♂ (1918).

Above Tura, Garo Hills, Assam, 3500—3900 ft., viii-17 [*Kemp*]. *Unique type* in Indian Museum.

**simillima**, *id.*, *loc. cit.*, 265, ♂ (1918).

Castle Rock, N. Kanara Distr., 11—26-x-16 [1918].

*Type* in Indian Museum.

**fumifascipennis**, *id.*, *loc. cit.*, 266, ♂ ♀ (1918).

Darjiling, 6000—7000 ft., 11-vi-14, *type* ♂, 12-vi-14, *type* ♀ [both *Gravely*]; 28-v-10 [*Brunetti*].

*Types* in Indian Museum.

**fumicosta**, *id.*, *loc. cit.*, 266, ♂ (1918).

Shillong, 5500—6400 ft., 28-viii—5-ix-15, *type* [*Kemp*], 4900 ft., 10—12-x-14 [*Kemp*], Tura, Garo Hills, x-17 [*Kemp*].

*Type* in Indian Museum.

**filicornis**, *id.*, *loc. cit.*, 267, ♂ (1918).

Pashok, Darjiling District, 3000 ft., 26-v—14-vi-16 [*Gravelly*].  
The unique *type* in the Indian Museum.

**rufiventris**, *id.*, *loc. cit.*, 268, ♀ (1918).

Pashok, Darjiling Distr., vi-16 [*Hartless*] *type* ♂; Soom, Darjiling Dist., 3000—3500 ft., 15-vi-14, *type* ♀ [*Gravelly*]; above Tura, 3500—3900 ft., ix-17 [*Kemp*].  
*Types* in Indian Museum.

**flavithorax**, *id.*, *loc. cit.*, 268, ♂ (1918).

Parambikulam, Cochin State, S. India, 1700—3200 ft., 16—24-ix-14 [*Gravelly*]. The unique *type* in the Indian Museum.

**fasciculata**, *id.*, *loc. cit.*, 269, ♂ ♀ (1918).

Darjiling, 7000 ft., 25-v-10, *type* ♂ [*Brunetti*]; Tonglu, Darjiling District, 10,000 ft., 21-iv-10 [*Beebe*]; Senchal, Darjiling District, 8000 ft., v-13 [Lord Carmichael coll.], also *type* ♀ from same locality. *Types* in Indian Museum.

**brevis**, *id.*, *loc. cit.*, 270, ♂ ♀ (1918).

Shillong, 4900 ft., 10—12-x-14 [*Kemp*].  
*Type* in Indian Museum.

**jacobsoni** Edw., Jour. Fed. Malay Sts. Mus., VIII, 12, ♀ pl. iv, 9, wing (1919).

? *Tipula* sp. de Meij., Tijds. v. Ent. LIV, 71 (1911).

Korinchi Peak, Sumatra, 7300 ft. v-1914, a unique ♀

**korinchiensis** Edw., Jour. Fed. Malay Sts. Mus. VIII, 13, ♀ (1919).

Sungei Kumbang, Korinchi, 4500 ft., Sumatra, iv-1914.

**robinsoni** Edw., *loc. cit.* 14, ♂ ♀ (1919) pl. iii, 3 *a, b*, genitalia. Sandaran Agong, Korinchi, 2450 ft., iv—v-1914, a single pair in cop.

### Longurio, Lw.

Berl. Ent. Zeits. XIII, 3 (1869).

GENOTYPE, *L. testaceus*, *id.*, sp. nov., *loc. cit.*

**rubriceps** Edw., Ann. Mag. Nat. Hist. (8) XVIII, 261, ♂ pl. xii, 9, genitalia (1916).

Shinten, Formosa, 400 ft. [*Shiraki*].

Unique *type* in British Museum.

### Brithura, Edw.

Ann. Mag. Nat. Hist. (8) XVIII, 262 (1916).

GENOTYPE, *B. conifrons* Edw., sp. nov.

**conifrons** Edw., *loc. cit.*, 263, ♂ pl. xii, 10—11, genitalia (1916).

Arisan, Formosa, 8000 ft., 10-x-12 [*Nitobe*].

Unique *type* in British Museum.

**crassa**, *id.*, *loc. cit.*, 264, ♂ (1916).

"East Indies" (? India). Unique *type* in British Museum.

### **Pachyrhina** Macq.

Hist. Nat. Dipt. I, 88 (1834).

Sch., F. Austr. II, 503: de Meij., Tijd. v. Ent. LIV, 72, notes: Brun., Rec. Ind. Mus. VI, 262, notes Orient, spp.: *id.*, Fauna Brit. Ind., 339.

GENOTYPE, *Tipula crocata* L., by Westwood's designation.

**javana** Wied., Dipt. Exot. I, 27, ♂ (*Tipula*) (1821).

*Id.*, Auss. Zweifl. I, 57, ♂ (*Tipula*): Brun., Rec. Ind. Mus. VI, 262 (*Pachyrhina*).

Java. *Type* in Westermann's collection. Specimens taken at Coonor by Mr. Howlett, 4 and 5, ix-11, ♂ ♂, and 1 and 4-ix-11, ♀ ♀, may be this species.

**bombayensis** Macq., Dipt. Exot. Supp. V, 35, ♂, pl. i, 1, wing (1854).

Wulp, Tijd. v. Ent. XXIII, 158: *id.*, Mid. Sumat. Exped. Dipt., 11: de Meij., Tijd. v. Ent. LIV, 79: Brun., Rec. Ind. Mus. VI, 263: *id.*, Fauna Brit. Ind., 351, ♂ ♀

Bombay; Pusa (nearly all the year round), Chapra, Bengal, Katihar, 7--31-viii-10 [*Paiva*]; Damukdia Ghat, N. Bengal; Calcutta [*Annandale*]; Bandong, Java, vi; Tandjong Priok, Java [both *Jacobson*]. *Type* in Bigot coll.

**delta** Walk., Ins. Saund., Dipt. pt. v, 445, ♀ (1856).

Brun., Rec. Ind. Mus. VI, 263.

East Indies. *Type* in British Museum.

Van der Wulp quotes East India in his catalogue, but my information from an examination of the *type* is that it is from the East Indies.

**javensis** Dol. (nec *javana*, W.), Nat. Tijd. Ned. Ind. X, 406 (*Tipula*), pl. iii, 2, full insect, head, profile (1856).

Brun., Fauna Brit. Ind., 348, ♀ redescr.: Edw., Ann. Mag. Nat. Hist. (8) XVIII, 266, notes: Brun., Rec. Ind. Mus. XV, 274.

**doleschalli**, Ost. Sack., Ann. Mus. Gen. XVI, 399, ♀ (1881): de Meij., Tijd. v. Ent. LIV, 77: Brun., Rec. Ind. Mus. VI, 263, 264, notes: Alex, Proc. U.S. Nat. Mus. 190, pl. xlvi, 45, wing.

**fallax**, de Meij., Bijd. tot de Dierk. XVII, 90, ♂ ♀ (1904). (t. Meij., Tijd. v. Ent. LIV, 77: 1911).

? **fasciata** Macq., Hist. Nat. Dipt. I, 90, ♂ (1834).

Naini Tal Distr., 3--4-iv-10; Coonor, S. Ind., 1 and 4-ix-11 [*Howlett*]; Ceylon; Tura, Garo Hills, ix, x-17 [*Kemp*]; Djokjakarta; Pangerando, x; Wonosobo, iv [both Java and

- Jacobson*]; Buitenzorg, vi-09; Tjibodas, Mt. Gedé, iv-09 [Bryant and Palmer]; Sumatra. Type ♂ in Vienna Museum.
- tripartita** Walk., Proc. Linn. Soc. Lond. V, 231, ♂ (1861).  
Papua. Type, location unknown, probably lost.
- tenuis**, *id.*, *loc. cit.*, VIII, 106, ♂ (1865).  
Papua. Type, location unknown, probably lost.
- colorata**, *id.*, *loc. cit.*, VIII, 131, ♀ (1865).  
de Meij., Tijds. v. Ent. I, IV, 77: Brun., Rec. Ind. Mus. VI, 263.  
Salawatti; Dutch South Papua (Digul Fluss).  
Type, location unknown, probably lost.  
De Meijere records a ♀ from Dutch South Papua which is probably of this species.
- familiaris** Ost. Sack, Ann. Mus. Gen. XVI, 401, ♂ ♀ (1880).  
de Meij., Tijds. v. Ent. LIV, 74 (augmented description):  
Brun., Rec. Ind. Mus. VI, 263.  
Sumatra, Pulu Babi Is. off W. Coast Sumatra, iv; Java; Wonosobo, Java, v [Jacobson]. Types in Genoa Museum.
- melanura** Ost. Sack., Ann. Mus. Gen. XVI, 401, ♀ (1880).  
Papua. Type in Genoa Museum.
- laconica**, *id.*, Berl. Ent. Zeits. XXVI, 92, ♀ (1882).  
Philippines. Type, location unknown, a unique specimen.
- ortiva**, *id.*, *loc. cit.*, 93, ♀ (1882).  
Brun., Rec. Ind. Mus. VI, 263.  
Philippines. Type, location unknown.
- nigro-annulata** Wulp, Notes Leyd. Mus. VII, 8, ♂ ♀ (1885).  
Brun., Rec. Ind. Mus. VI, 264.  
Morotai. Type ♂ ♀ in Leyden Museum.
- quadrivittata**, *id.*, *loc. cit.*, 9, ♂ (1885).  
Java. Type in Leyden Museum.
- triplasia**, *id.*, *loc. cit.*, 10, ♂ ♀ (1885).  
Java. Type in Leyden Museum.
- immaculata** Wulp, Tijds. v. Ent. XXXIV, 196, ♂ (1892).  
Java [*t. Wulp*]; Tankoeban Prahoe, Java, vi [Jacobson].  
var. **pangerangensis** Alex., Proc. U.S. Nat. Mus. XLIX, 190, pl. xlvi, 47, wing (1916).  
Pangrango, Java, 9000 ft; Tjibodas, Mt. Gedé, Java, 4500 and 9000 ft. [Bryant and Palmer].  
Type of *immaculata* in Leyden Museum; of *pangerangensis*, No. 19,033, in U.S. Nat. Mus.
- virgata** Coq., Proc. U.S. Nat. Mus. XXI, 306 (1898).  
Edw., Ann. Mag. Nat. Hist. (8) XVIII, 266, notes.

Arisan, Formosa, 8000 ft., 10-x-12 [*Nitobe*]. Described originally from Japan.

**dorsalis** de Meij., *Bijd. tot de Dierk.* XVII, 89, ♀ (1904).

Java. *Type* in Amsterdam Museum.

**scurroides**, *id.*, *loc. cit.*, 90, ♀ (1904).

*Id.*, *Tijd. v. Ent.* LIV, 75, ♂ (1911).

Java; South Formosa, Wouosobo, Java, iv [*Jacobson*]; Tosari, Java, iii [*Beaufort*]. *Type* in Amsterdam Museum.

**dimidiata** de Meij., *Bijd. tot de Dierk.* XVII, 90, ♀ (1904).

*Id.*, *Nova Guin. Res.* IX, 315.

Java; Alkmaar, Papua, ii. *Type* in Amsterdam Museum.

**dorsopunctata** Brun., *Rec. Ind. Mus.* VI, 265, ♂ ♀ (1911).

*Id.*, *Fauna Brit. Ind.*, 350, ♂ ♀ : *Rec. Ind. Mus.* XV, 275.

Naini Tal District, 3-v-10; Pashok, Darjiling District, 2000—3500 ft. [*Gravelly*]; Siliguri [*Annandale*], Dinapore, 16-xii-14 to 23-i-15 [*Caunter*]; Katihar, 30-xi-09, *type* ♂, Bhogaon, 20-xii-09; Madhupur, 13-x-09 [all Bengal and *Paiva*]; Pusa, 31-iii; 4-iv-11 [*Gravelly*]; 27-xi-14 [*Fletcher*]; Calcutta [*Annandale*]; Maddathorai, Travancore, 17-xi-08, *type* ♀ [*Annandale*]; Ceylon Assam-Bhutan Frontier, 30-xii-10 [*Kemp*].

*Type* ♂ ♀ in Indian Museum.

Two ♂ ♂ in the Pusa collection 16-ii and 26-ii-10 bred from larvae in earth from rice-fields at Pusa may be this species.

**consimilis** Brun., *Rec. Ind. Mus.* VI, 266, ♂ ♀ (1911).

*Id.*, *Fauna Brit. Ind.*, 346, ♂ ♀ ; *Rec. Ind. Mus.* XV, 275.

Ghoom, above Darjiling, 6000—7000 ft., 11-vi-14 [*Gravelly*], Darjiling, 7000 ft., 23—28-v-10, *type* ♂ ♀ ; 1-x-08; 17-v—10-vi-17; very common [all *Brunetti*]; Ghumti, Darj. Distr., 4000 ft. [*Gravelly*]; 5—10-viii-09 [*Paiva*]; Pashok, Darj. Distr., 2000—3500 ft., 23-iv—11-v-15 [*Gravelly*]; Kalimpong, Darj. Distr., 600—4500 ft., 24-iv—10-v-15 [*Gravelly*]; Kurseong, 4700—5000 ft., 19-vi-10; 4-ix-09; 19—24-vi-10; 5-vii-08; 5--8-ix-09 [all *Annandale*]; Gangtok, Sikkim, 22-v-05; Bhim Tal., 17—19-ix-06 [*Annandale*]; Mussoorie, 22-v-05 [*Brunetti*]; Tarnab, Peshawar Distr., v-16 [*Fletcher*]; Cherrapunji, Assam, 4400 ft., 2—3-x-14 [*Kemp*]; Shillong, 5500—6400 ft., 29-viii--5-ix-15 [*Kemp*], x-16 [*Fletcher*].

The species appears generally distributed throughout India. *Type* ♂ ♀ in Indian Museum; *cotypes* in Vienna Museum, Pusa collection and my own.

**serricornis** Brun., *Fauna Brit. Ind.*, 341 ♂ (1912).

Mussoorie, 7000 ft. [*Brunetti*]; Almora, Kumaon, 5500 ft. [*Paiva*]; Darjiling, 6-viii-09 [*Paiva*]; Kurseong, 4-ix-09, *type* ♂ ; 5-vii-08; 22--25-vi-10 [*Annandale*]; Sureil, iv—v-17 [*Kemp*]; Gangtok, Sikkim, 6150 ft., 10-ix-09; Siliguri, 18--20-vii-07; Pusa, ii, iii, iv, vii, ix, xii rather common; Lahore, 8-iv-14 [*Lord*]; Shillong, 5000 ft., x-16 [*Fletcher*]; 19-x-11; Tengueh, Yunnan [*Coggin Brown*]. *Type* in Indian Museum.

Some ♂♂ taken by me at Yokohama, 20--26-vi-06, are probably the same species.

**puncticornis**, *id.*, *loc. cit.*, 343, ♂ 1912.

Siliguri, 30-vi-08. *Type* in the Indian Museum.

**pleurinetata**, *id.*, *loc. cit.*, 343, ♂ ♀ (1912).

*Id.*, Rec. Ind. Mus. XV, 274.

Pusa, 14-iii-13 on guava; Namoya, Ceylon, ix-1909 [*Green*].

*Types* in Indian Museum.

**demarcata** Brun., Fauna Brit. Ind., 344, ♂ ♀ (1912).

Darjiling, 5-9-viii-09 [*Paiva*]; Kurseong, 5000 ft. [*Annan-dale*]. *Types* in Indian Museum.

**concolorithorax**, *id.*, *loc. cit.*, 346, ♂ ♀ (1912).

Sylhet, 18-i-04, *type* ♀ [*Hall*]; Pusa, 21-vi-11 [*Fletcher*];

Shillong [*Kemp*]; Khasi Hills, 1000--3000 ft., iii-07 *type* ♂

*Type* ♂ in Pusa coll.: *type* ♀ in Indian Museum.

**gamma**, *id.*, *loc. cit.*, 347, ♀ (1912).

*Id.*, Rec. Ind. Mus. XV, 275.

Darjiling to Soom, 6000--7000 ft. [*Lord Carmichael* colln.];

11 and 12-vi-14 [*Gravelly*]; Mangaldai Distr., Assam-Bhutan

Frontier, 30-31-xii-10, *type* ♀ [*Kemp*].

*Type* in Indian Museum.

**speculata** de Meij., Nova Guin. Res. IX, 314, ♀ (1913).

Alkmaar, Papua, xii, ii. *Unique type* in Amsterdam Museum.

**ochripleuris** de Meij., Tijd. v. Ent. LVI, Supp. p. 6, ♂ ♀ (1913)  
(Mar. 1914).

Alex., Proc. U.S. Nat. Mus. XLIX, pl. xlvi, 46, wing.

Java; Tjibodas, Mt. Gedé, Java, 26-viii-09, 7000 ft. [*Bryant*

and *Palmer*]. *Type* in Amsterdam Museum.

**citrina** Edw., Ann. Mag. Nat. Hist. (8) XVIII, 265, ♀ (1916).

Taihoku, Formosa [*Shiraki*].

*Unique type* in British Museum.

**parva** Edw., *loc. cit.*, 266, ♂ (1916)

Arisan, Formosa, 10-x-12 [*Nitobe*].

*Unique type* in British Museum.

**formosensis** Edw., *loc. cit.*, 267, ♀ (1916).

Kammotu, Formosa [*Nitobe*].

*Unique type* in British Museum.

**fuscoflava** Brun., Rec. Ind. Mus. XV, 275, ♀ (1918).

Dungagali, 8000 ft. 21-24-v-15.

*Type* sent to British Museum, *cotype* in Pusa collection.

**parvinotata**, *id.*, *loc. cit.*, 276, ♂ ♀ (1918).

Taru, Peshawar Distr., 16-29-v-15, *type* ♂ ♀; Haripur

Hazara, N.W. Frontier, 27-v-15 [*Fletcher*].

*Types* sent to British Museum, *cotypes* in Pusa collection.



**hypocrites**, *id.*, *loc. cit.*, 276, ♂ ♀ (1918).

Sureil, Darjiling District, 5000 ft., iv—v-17 [*Kemp*].

*Types* in Indian Museum.

#### Section DOLICHOPEZINI.<sup>1</sup>

#### **Scamboneura**, Ost. Sack.

Berl. Ent. Zeits. XXVI, 95 (1882).

GENOTYPE, *S. dotata*, the original species.

**vittifrons** Walk., Proc. Linn. Soc. Lond. V, 144, ♀ (*Limnobia*) (1861).

Brun., Rec. Ind. Mus. VI, 267.

Amboina.

*Type*, reduced to a fragment, in British Museum.

**dotata** Ost. Sack., Berl. Ent. Zeits. XXVI, 95, fig. 1, ♂ (1882).

Philippines. Location of *type* unknown.

**quadrata** de Meij., Tijd. v. Ent. LVI, Supp. p. 8, 1913 (Mar. 1914).

Java. *Type* in Amsterdam Museum.

#### **Megistocera**, Wied.

Dipt. Exot. I, 41 (*Maekistocera*) (1821).

Wied., Auss. Zweifl. I, 55: Ost. Sack., Berl. Ent. Zeits. XXX, 158 (recharacterisation of genus and notes).

GENOTYPE, *Tipula filipes* F., the second species included by Wiedemann, by designation of Macquart, Dipt. Exot. I, 59.

**fuscana** Wied., Dipt. Exot. I, 29, ♀ (*Nematocera*) (1821).

*Id.*, *loc. cit.*, 41, ♀ (*Maekistocera*): *id.*, Auss. Zweifl. I, 55, ♀: Macq., Hist. Nat. Dipt. I, 114, ♂, pl. ii, 15, full insect: *id.*, Dipt. Exot., Supp. I, 18, pl. ii, 4, wing: Ost. Sack., Ann: Mus. Gen. XVI, 399: Wulp, Notes Leyd. Mus. VII, 3: *id.*, Tijd. v. Ent. XXVIII, 83, pl. iv, 4: Ender., Zool. Jahr. XXXII, 30, figs., wing (1912): Brun., Rec. Ind. Mus. VI. 267.

Batavia, viii—xi; Bandong, vi [both *Jacobson*]; Celebes, Sumatra, Aru Is.

*Type* in Westermann's collection (Vienna Museum).

<sup>1</sup> For characters and comparison see Ost. Sack., Monog. Dipt. N. Amer. IV 289, and Brun., Fauna Brit. Ind., 353.

**Mitopeza, Edw.**

Ann. Mag. Nat. Hist. (8) XVII, 349 (1916).

GENOTYPE, *M nitidirostris* Edw., sp. nov.

*nitidirostris* Edw., *loc. cit.*, p. 350, ♀, fig. 1, p. 356, genitalia (1916).

Kedah Peak, 3200 ft., Malay Peninsula [*Stanton*].

The unique *type* in the British Museum.

**Nesopeza, Alex.**

Can. Ent. XLVI, 157 (1914).

GENOTYPE, *Dolichozeza gracilis* de Meij.

*gracilis* de Meij., Tijds. v. Ent. LIV, 60, ♂, pl. iv, 46, wing (*Dolichozeza*) (1911).

Wonosobo, Java, v; Tjibodas, Mt. Gedé, Java, 4500 ft. [*Bryant and Palmer*]. *Type* in Amsterdam Museum.

*albitarsis* Brun., Rec. Ind. Mus. XV, 278, ♂ ♀, pl. vii, 1, wing (1918).

Lebong, 6000—6600 ft., 13-vi-14, *type* ♂ [*Gravelly*]; between Darjiling and Soom, 5000—7000 ft., 14-vi-14 [*Gravelly*].

The *types*, a unique pair, in Indian Museum.

*longicornis*, *id.*, *loc. cit.*, 278, ♂ (1918).

Above Tura, Garo Hills, 3500—3900 ft., vii-1917 [*Kemp*].

*Type* in Indian Museum.

*picticornis*, *id.*, *loc. cit.*, 279, ♂ (1918).

Inle, Southern Shan States, 3000 ft., 18-ii-17 [*Gravelly*].

*Type* in Indian Museum.

**Dolichozeza, Curt.**

Brit. Ent., 62 (1825).

Sch., F. Austr. II, 525: Ost. Sack., Berl. Ent. Zeits. XXX, 157: Brun., Fauna Brit. Ind., 353.

GENOTYPE, *D. sylvicola* Curt.,<sup>1</sup> by original designation.

*Leptina*, Mg., Sys. Besch. VI, 283, pl. lxx, 10, in text as *Dolichozeza*, on plate as *Leptina* (1830).

*Apeilesis*, Macq., Dipt. Exot. Supp. I, 8, pl. i, 3 (1846): *id.*, Ost. Sack., Berl. Ent. Zeits. XXX, 158.

GENOTYPE, *A. cinerea*, sp. nov., by original designation.

<sup>1</sup> Some desire to change this name to *albipes*, Strom, but *sylvicola* has stood so long unchallenged that I decline to accept any alteration.

**orientalis** Brun., Fauna Brit. Ind., 354, ♂ ♀, pl. v, 19, wing (1912).

Darjiling, 7000 ft., 4-vi-17 [*Brunetti*]; 11-vi-14 [*Gravelly*]; Kurseong, 8-vii-08, type ♂; 4-ix-09; 22-vi-10, type ♀ [*Annandale*]; Tura, Garo Hills, viii-17 [*Kemp*]; Ginting Bidai, Federated Malay States, iv-17 [*Boden Kloss*].  
Types in Indian Museum.

**obscura**, *id.*, *loc. cit.*, 355, ♂ ♀ (1912).

Kurseong, 4700 ft., 14-iv-11, type ♂, 29-vi-10, type ♀ [both *Annandale*]; Lebong, 6000—6600 ft. [*Lord Carmichael colln.*].  
Types in Indian Museum.

**postica** *id.*, *loc. cit.*, App. 564, ♂ ♀ (1912).

Ghumti, Darjiling Distr., 6000 ft., vii-1911, including ♂ ♀ *in cop.* [*Gravelly*]; Tura, Garo Hills, viii-17 [*Kemp*].  
Types in the Indian Museum.

**infuscata**, *id.*, *loc. cit.*, App. 565, ♂ (1912).

Nilgiri Hills, 6000 ft., v-1911 [*Andrewes*].  
Type in Indian Museum, a unique specimen.

**costalis** Brun., Rec. Ind. Mus. XV, 277, ♂, pl. viii, 6, wing (1918).

Kavalai, Cochin State, 1300—3000 ft., 24—27-ix-14 [*Gravelly*].  
Unique type in Indian Museum.

**pallidithorax** de Meij., Tijd. v. Ent. LVI, Supp., p. 4, ♂; pl. i, 3, 1913 (Mar. 1914).

Java. Type in Amsterdam Museum.

### Sub-family LIMNOBIINAE.

#### Section CYLINDROTOMINI.<sup>1</sup>

#### **Stibadocera**, Ender.

Zool. Jahr. XXXII, 83 (1912).

GENOTYPE, *S. bullans* Ender., by original designation.

**quadricellula** Brun., Rec. Ind. Mus. VI, 268, ♂ (*Cylindrotoma*) (1911).

*Id.*, Fauna Brit. Ind., 361, ♂, pl. vii, 1, antenna, 2, wing.  
Kurseong, 18-v-10, type, 23-vi-10; 6-vii-08 [*Annandale*].  
Type in Indian Museum.

**bullans** Ender., Zool. Jahr. XXXII, 84, ♂, fig. A 2, wing (1912).

Sumatra (Liangagos).  
Type, a unique ♂, in Stettin Museum.

**metallica** Alex., Proc. U.S. Nat. Mus. XLIX, 178, pl. xlv, 30, wing (1916).

<sup>1</sup> For characters and comparisons *v.* Ost. Sac., Monog. Dipt. N. Amer. IV 289 and Brun., Fauna, 353: *id.*, Rec. Ind. Mus. XV, 280 on generic characters.

Tjibodas, Mt. Gedé, Java, 9000 ft. [Bryant and Palmer];  
Pangranggo, Java. *Type*, No. 19,026, in U.S. Nat. Mus.

### Stibadocerella, Brun.

Rec. Ind. Mus. XV, 283 (1918).

GENOTYPE, *S. pristina*, *id.*, sp. nov., *loc. cit.*

**pristina** Brun., *loc. cit.*, 283, ♂ ♀ (1918).

Tura, Garo Hills, 3500—3900, vii-17 [Kemp].

*Type* in Indian Museum.

*N.B.*—In my second paper on Oriental Tipulidae a “new species *latefurcata*” (of *Cylindrotoma*) is mentioned. This was a MS. name for *pristina*, and referred to the late bifurcation of the second and third veins. On establishing *Stibadocerella* the name *bifurcata* was not so applicable, but in one instance the MS. name by oversight was not changed.

### Section LIMNOBIINI.<sup>1</sup>

#### Dicranomyia, Steph.

Cat. Brit. Ins. II, 243 (1829).

Sch., F. Austr. II, 565, as *Limnobia*, pt.: Ost.  
Sack., Monog. Dipt. N. Amer. IV, 53: *id.*, Berl.  
Ent. Zeits. XXXI, 172: Brun., Fauna Brit.  
Ind., 363.

GENOTYPE, *Limnobia modesta* Mg., designated by  
Coquillett, 1910.

*Siagona*, Mg., Syst. Besch. VI, pl. lxxv, 7 (1830).

GENOTYPE, *Glochina sericata* Mg., by original  
designation.

*Numantia*, Big., pt., Ann. Soc. Ent. Fran. (3) II,  
470 (1854).

GENOTYPE, *Limnobia fusca* Mg., by Coquillett's  
designation.

*Thrypticomomyia*, Skuse, Proc. Linn. Soc. N.S. Wales  
(2) IV, 775, pl. xxi, 6, xxiv, 44, 45 (1890).

GENOTYPE, *T. auripennis*, *id.*, sp. nov., *loc. cit.*

? *Glochina*, Mg., Syst. Besch. VI, 280, pl. lxxv, 7 (as  
*Siagona* on plate) (1830).

**saltens**<sup>2</sup> Dol., Nat. Tijd. Ned. Ind. XIV, 390, pl. ii, 3 (*Limnobia*)  
(1857).

Ost. Sack., Berl. Ent. Zeits. XXVI, 88: de Meij., Tijd. v.  
Ent. LIV, 22, pl. i, 1, wing: Brun., Rec. Ind. Mus. VI, 269:  
*id.*, Fauna Brit. Ind., 373, ♂ ♀

<sup>1</sup> For table of oriental genera, *v.* Brun., Fauna, 363.

<sup>2</sup> Sometimes (erroneously) spelt *saltans*. If the genus *Thrypticomomyia*, Skuse, be valid, *saltens*, *kobusi*, *cuneiformis*, *longivena*, *absens* and *bicinctipes* come in it.

Travancore, 14-xi-09 [*Annandale*]; Cherambadi, Wynaad, S. India, x-13 [*Fletcher*]; Dibrugarh, Assam, 17—19-xi-11 [*Kemp*]; Java (var. locs.). *Type*: location unknown to me.

This species may possibly be synonymous with *Limnobia apicalis*, Wied.

**kobusi** de Meij., *Bijd. tot de Dierk.* XVII, 91, pl. viii, 5, wing, 6, tip of leg (1904).

Brun., *Rec. Ind. Mus.* VI, 270: *id.*, *Fauna Brit. Ind.*, 371, ♂ ♀: de Meij., *Tijd. v. Ent.* LVI, 343, pl. xvi, 8, ♂ genitalia.

Kurseong, 20—25-vi-10; 5-vii-08, including ♂ ♀ in cop. [*Annandale*]; Lebong, 6000—6600 ft., 13-vi-14; Nedumangad, Travancore [*Annandale*]; Dibrugarh, Assam (Abor. Exped.) [*Kemp*]; Nusa, Kambangan, Java, iii [*Jacobson*].

*Types* ♂ ♀ in Amsterdam Museum.

**pulchra** de Meij., *Bijd. tot de Dierk.* XVII, 92, ♀, pl. viii, 7, full ins. (*Rhipidia, id.*) (1904).

*Id.*, *Tijd. v. Ent.* LIV, 27, pl. ii, 14—16 antennae, ♂ ♀ genitalia (*Dicranomyia, id.*): Brun., *Rec. Ind. Mus.* VI, 240.

Batavia, ii, x; Semarang, ii [both *Jacobson*].

*Type* in Amsterdam Museum.

**cuneiformis** de Meij., *Tijd. v. Ent.* LIV, 23, ♂, pl. i, 2, wing (1911).

Brun., *Rec. Ind. Mus.* VI, 270; XV, 284: *id.*, *Fauna Brit. Ind.*, 372, ♂ ♀

Talewaddi, Castle Rock, N. Kanara Dist., 10-x-16 [*Kemp*]; Dawna Hills, 2000—3000 ft., 2—3-iii-08 [*Annandale*]; Wonosobo, Java, iv [*Jacobson*].

*Type* ♂ in Amsterdam Museum; the ♀ from which I described this sex in Indian Museum.

**convergens** de Meij., *Tijd. v. Ent.* LIV, 24, ♂ ♀, pl. i, 3—6, wing, and ♂ ♀, genitalia (1911).

Tosari [*Kobus*]; Semarang, ii; Tankuban Prahū [both *Jacobson*, all Java]. *Types* in Amsterdam Museum.

**umbrata, id., loc. cit.**, 25, ♂ ♀, pl. i, 7, wing (1911).

*Id.*, *Tijd. v. Ent.* LVI, 343, pl. xlvi, 9, 10, ♂ genitalia.

Semarang, xii; Batavia and environs, x, xi [*Jacobson* and *Dr. Rogge*]. *Types* in Amsterdam Museum.

**punctulata, id.**, *Tijd. v. Ent.* LIV, 26, ♂; pl. i, 8, wing, 9, ♂ genitalia (1911).<sup>1</sup>

Semarang, i; Wonosobo, v [*Jacobson*].

*Type* in Amsterdam Museum.

**nervosa, id., loc. cit.**, 26, ♀, pl. i, 10, wing (1911).

Wonosobo, Java, v [*Jacobson*].

*Type*, a unique ♀, in Amsterdam Museum.

<sup>1</sup> De Meijere employs both sex signs at the beginning of his description though he stated his specimen to be unique. Probably only the ♂ sex was before him.

**tenella**, *id.*, *loc. cit.*, 27, ♂ ♀, pl. i, 11—13, wing, ♀ genitalia (1911).

Pangerango, Java, x; Semarang, xi [both *Jacobson*].

*Types* in Amsterdam Museum, a unique pair.

**longivena**, Edwards, Ann. Mag. Nat. Hist. (8) VIII, 59, ♀ (1911).

Brun., Fauna Brit. Ind., 374, ♀

Dondra, Ceylon, 3-xii-07 [*Fletcher*].

*Type* in British Museum.

**marmoripennis** Brun., Fauna Brit. Ind., 369, ♂ ♀, pl. vii, 3, wing (1912).

Darjiling, 16-vi-14 [*Gravelly*]; 8-viii-09 [*Paiva*]; 3—9-vi-06 [*Howlett*]; Kurseong, 5-ix-09, *type* ♂ ♀ [*Annandale*]; Katihar, 7—31-viii-10 [*Paiva*]; Pusa, 29-vi-11; 1-viii-11 sweeping grass [both *Howlett*]; Bangalore, 3000 ft. [*Annandale*]; Shillong, x-16 [*Fletcher*]; 5500—6400 ft., 29-viii—5-ix-15 [*Kemp*]; Lashio, Upper Burma, 3000 ft., 23, 24-viii-14 [*Fletcher*]; Kobo, Assam (Abor Exped.), 400 ft., 2—3-xii-11 [*Kemp*]. *Types* in Indian Museum.

**demarcata**, *id.*, *loc. cit.*, 370, ♀ (1912).

Kurseong, 15-iv-11 [*Annandale*]. *Type* in Indian Museum.

**absens**, *id.*, *loc. cit.*, 372, ♀, pl. vii, 4, wing (1912).

Darjiling, 5-viii-09 [*Paiva*]; Kurseong, 25-vi-10, *type* [*Annandale*]; Hakgala, Ceylon. *Type* in Indian Museum.

Two ♂ ♂ and two ♀ ♀ taken by me at Darjiling are probably this species, two have the discal cell open (specific character) and two have it closed.

**pulchripennis**, *id.*, *loc. cit.*, 376, ♂ ♀, pl. vii, 8, wing; xi, 2, ♂ genitalia (1912).

Mussoorie, 18-vi-05; 17-viii-05 [both *Brunetti*]; Simla, x-08; Bhowali, 5700 ft., x-09 [*Imms*]; Kangra Valley, W Himalayas [*Dudgeon*]; Kurseong [*Annandale*]; Shillong, 5500—6400 ft., 29-viii—5-ix-15 [*Kemp*]; x-16 [*Fletcher*].

*Types* in Indian Museum; *cotypes* in my collection.

**puncticosta**, *id.*, *loc. cit.*, 377, ♂ ♀, pl. vii, 7, wing (1912).

Kurseong, 4-ix-09, *type* ♂ [*Annandale*]; Darjiling, 8-viii-09, *type* ♀ [*Paiva*]. *Types* in Indian Museum.

**fraterna**, *id.*, *loc. cit.*, 378, ♀, pl. vii-5, wing (1912).

Darjiling, 5—8-viii-09 [*Paiva*]. *Type* in Indian Museum.

**fascipennis**, *id.*, *loc. cit.*, 379, ♀, pl. vii, 9, wing (1912).

Almora, Kumaon, 5500 ft., 24-vi-11, *type* [*Paiva*], 17—19-ix-11 [*Paiva*]; Pusa, in spiders' webs, 1-i-14 [*Howlett*]; Kurseong, 5-vii-08, *type* ♀ [*Annandale*]; Shillong, 29-viii—5-ix-15 [*Kemp*]; Coonoor, at light, 4-ix-11; Peradeniya [*Gravelly*].

*Types* in Indian Museum.

- subfascipennis**, *id.*, *loc. cit.*, 380, ♂ ♀, pl. vii, 6, wing (1912).  
Kurseong, 4-vii-08 [*Annandale*]; Ghumti, 4000 ft. [*Gravelly*].  
*Types* in Indian Museum.
- ornatipes**, *id.*, *loc. cit.*, 380, ♂, pl. vii, 10, wing (1912).  
Vaikam, Travancore, 5-xi-08, *type* [*Annandale*]; Balighai, near Puri, 24-x-08; Khurda Rd., Orissa; Dawna Hills, 2000—3000 ft., 2—3-iii-08 [all *Annandale*]. *Type* in Indian Museum.
- cinerascens**, *id.*, *loc. cit.*, 381, ♂ ♀, pl. vii, 11 (1912).  
Darjiling, 8-iv-10, *type* ♂; 10--20-x-05 [*Brunetti*]; 7000 ft. [*Beebe*]; Kurseong, 24-iii-10, *type* ♀ *Type* in Indian Museum.
- sordida**, *id.*, *loc. cit.*, 382 (1912).  
Kurseong, 4-ix-09, *type* ♂; 9-ix-09 [*Annandale*]; Darjiling, 7-viii-09, *type* ♀ [*Paiva*]. *Type* in Indian Museum.
- delicata**, *id.*, *loc. cit.*, 383, ♂ ♀ (1912).  
Darjiling, 6-viii-09, *type* ♂, 9-viii-09, *type* ♀ [both *Paiva*].  
*Types* in Indian Museum.
- flavobrunnea**, *id.*, *loc. cit.*, 384, ♂ ♀ (1912).  
Calcutta, 18-xi-07, *type* ♂ ♀, "at light," 9-vi-07; 6-xi-07; 20-xii-07; Purulia, Manbhum Distr., Chota Nagpur, 10-ii-12 [*Annandale* and *Gravelly*]; Tenmalai, Travancore [*Annandale*].  
*Types* in Indian Museum.
- simplex**, *id.*, *loc. cit.*, 384, ♀ (1912).  
Calcutta, 6-xi-10 [*Gravelly*], Shillong, Khasi Hills, 5500—6400 ft. [*Kemp*]. *Type* in Indian Museum.
- fortis**, *id.*, *loc. cit.*, 385, ♂ (1912).  
Darjiling, 6-viii-09, *type* [*Paiva*]; 9-viii-09 [*Brunetti*].  
*Type* in Indian Museum.
- nigrithorax**, *id.*, *loc. cit.*, 385, ♂ (1912).  
Darjiling, 28-vi-10, *type*; 26-v-10 [all *Brunetti*].  
*Type* in Indian Museum.
- subtessellata**, *id.*, *loc. cit.*, App., 565, ♂ ♀ (1912).  
Pattipola, Ceylon, 6000 ft., 14-x-11 [*Annandale*]; Castle Rock, Goa, 11--26-x-16 [*Kemp*]. *Types* in Indian Museum.
- bicinctipes**, *id.*, *loc. cit.*, App., 566, ♂ (1912): Rec. Ind. Mus. VII, 447.<sup>1</sup>  
"Thingannyinaung to Sukli," Dawna Hills, 900—2100 ft., 23—27-xi-11 [*Gravelly*]. *Type* in Indian Museum.
- columbina**, *id.*, *loc. cit.*, App., 567, ♀ (1912).  
Peradeniya, 22-vii-10, *type*, 7-ii-10; 3-x-10 [*Green*]; Shillong [*Kemp*]. *Type* in Indian Museum.

<sup>1</sup> The first reference antedates the second by about a month. The species comes in the *Thrypticomyia* group.

- approximata**, *id.*, *loc. cit.*, App., 567, ♀ (1912).  
Ghumti, Darjiling Distr., 4000 ft., vii-1911 [*Gravelly*].  
*Type* in Indian Museum, a unique ♀
- innocens**, *id.*, *loc. cit.*, App. 568, ♂ ♀ (1912).  
Almora, Kumaon Div., 18—25-vi-11 [*Paiva*].  
*Types* in Indian Museum.
- debeauforti** de Meij., *Bijd. tot de Dierk.* XIX, 47, ♂ ♀ (1913).  
Saonek, xii, i. *Types* in Amsterdam Museum.
- alta** de Meij., *Tijd. v. Ent.* LVI, 341, ♂, pl. xvi, 6, wing (1913).  
Gunung Ungaren, ix [*Jacobson*].  
*Type*, a unique ♂, in Amsterdam Museum.
- nongkodjadjarensis**, *id.*, *loc. cit.*, 343, ♂, pl. xvi, 7, wing (1913).  
Nongkodjadjar, Java, i [*Jacobson*].  
*Type*, a unique ♂, in Amsterdam Museum.
- novae-guineae**, *id.*, *loc. cit.*, LVIII, 101 (*Thrypticomylia*) (1915).  
Hollandia, North Papua *Type* in Amsterdam Museum.
- tinctipennis**, *id.*, *loc. cit.*, LVIII, Supp. 66 (1916).  
Fort de Kock, Sumatra. *Type* in Amsterdam Museum.
- fullowayi** Alex., *Can. Ent.* LVII, 79 (1915).  
Arisan, Formosa, 8000 ft., 10-x-12 [*Nitobe*]. Described originally from the Ladrones Islands.
- alticola** Edw., *Ann. Mag. Nat. Hist.* (8) XVIII, 246, ♀, pl. xii, 1, genitalia (1916).  
Arisan, Formosa, 8000 ft., 10-x-12 [*Nitobe*], Horisha, Formosa. *Type* in British Museum.
- albitarsis** Alex., *Proc. U.S. Nat. Mus.* XLIX, 159, ♂, pl. xlii, 1, wing (1916).  
Tjibodas, Mt. Gedé, Java, 4500 ft. [*Bryant and Palmer*].  
*Type*, Cat. No. 19,007, in U.S. Nat. Mus.
- atrescens**, *id.*, *loc. cit.*, 160, ♂ (1916).  
Tjibodas, Mt. Gedé, Java, 8000 ft. [*Bryant and Palmer*].  
*Type*, Cat. No. 19,008, in U.S. Nat. Mus.
- erythrina**, *id.*, *loc. cit.*, 161, ♂, pl. xlii, 2, wing (1916).  
Tjibodas, Mt. Gedé, 4500 ft., Java [*Bryant and Palmer*].  
*Type*, Cat. No. 19,009, in U.S. Nat. Mus.
- excelsa**, *id.*, *loc. cit.*, 161, ♂ ♀, pl. xlii, 3, wing (1916).  
Pangranggo, Java, 9000 ft., *type* ♂ [*Bryant and Palmer*];  
Tjibodas, Mt. Gedé, 8000 ft., *type* ♀  
*Type*, Cat. No. 19,010, in U.S. Nat. Mus.
- simplissima**, *id.*, *loc. cit.*, 162, ♀ pl. xlii, 4, wing (1916).  
Tjibodas, Mt. Gedé, Java, 9000 ft. [*Bryant and Palmer*].  
*Type*, Cat. No. 19,011, in U.S. Nat. Mus.



- carneotincta**, *id.*, *loc. cit.*, 162; ♂, pl. xlii, 5, wing (1916).  
Singapore [*Bryant and Palmer*].  
*Type*, Cat. No 19,012, U.S. Nat. Mus.
- bicolor** Brun., *Rec. Ind. Mus.* XV, 285, ♂ (1918).  
Cherrapunji, Assam, 4400 ft., 2—8-x-14 [*Kemp*].  
Unique *type* in Indian Museum.
- prominens**, *id.*, *loc. cit.*, 285, ♂ ♀ (1918).  
Mormugao, Goa, ix-16 [*Kemp*]. *Types* in Indian Museum.
- niveiapicalis**, *id.*, *loc. cit.*, 285, ♂ (1918).  
N. Kanara Distr., W India, 11—26-x-16 [*Kemp*].  
The unique *type* in the Indian Museum.
- pictipes**, *id.*, *loc. cit.*, 286, ♂ ♀ (1918).  
Mormugao, Goa, ix-16 [*Kemp*]. *Types* in Indian Museum.

#### Geranomyia, Hal.

- Ent. Month. Mag. I, 154 (1833).  
Sch., F. Austr. II, 564: Ost Sack., Monog. Dipt. N. Amer. IV, 78; *id.*, Berl. Ent Zeits. XXXI, 173: Brun., Fauna Brit. Ind., 387: *Auctt.*  
GENOTYPE, *G. unicolor*. Hal., by original designation.
- Limnobiorhynchus*, ♀ only, Westw., Ann. Soc Ent. Fran. (1) IV, 683 (1835).  
*Plettusa*, Phil., Verh. Zool. bot. ges. Wien, XV, 597, pl. xxiii, 1 (1865).  
GENOTYPE, *P. virescens*, sp. nov., *loc. cit.*
- sorbillans** W., Auss. Zweifl. I, 551, ♀ (*Limnobia*) (1828).  
Brun., *Rec. Ind. Mus.* VI, 274.  
Sumatra. *Types* in Wiedemann's and Trentepohl's collections at Vienna Museum.
- nitida** de Meij., Tijd. v. Ent. LIV, 28, ♀ (1911).  
Alex., Proc. U.S. Nat. Mus. XLIX, pl. xlii, 6, wing.  
Wonosobo, Java, iv [*Jacobson*]; Batavia, 1-iv-09 [*Bryant and Palmer*]. *Type* in Amsterdam Museum.
- argentifera** de Meij., Tijd. v. Ent. LVI, 29, ♂ ♀, pl. ii, 18, wing, 19, ♂ genitalia (1911).  
Semarang, 1-vii [*Jacobson*]. *Types* in Amsterdam Museum.
- montana**, *id.*, *loc. cit.*, 29, ♂ ♀ (1911).  
Pangerango, Java, x [*Jacobson*]. *Type* in Amsterdam Museum.

**notata**, *id.*, *loc. cit.*, 30, ♀ (1911).

Batavia environs [*Jacobson*]. *Type* in Amsterdam Museum.

**fletcheri** Edwards, Ann. Mag. Nat. Hist. (8) VIII, No. 43, 60, ♀ (1911).

Brun., Fauna Brit. Ind. VI, 393, ♀

Madulsima, Ceylon, 19-v-08, *type*; 21-xii-07.

*Type* in British Museum.

**vinaceobrunnea** Brun., Rec. Ind. Mus. VI, 274, ♀ (1911).

*Id.*, Fauna Brit. Ind., 392, ♀

Simla, x-08 [*Howlett*]. *Type* in Pusa collection.

**genitalis**, *id.*, Rec. Ind. Mus. VI, 275, ♂ ♀ (1911).

*Id.*, Fauna Brit. Ind., 388, ♂ ♀, pl. xi, 7, ♂ genitalia: *id.*, Rec. Ind. Mus. XV, 287.

Pashok Spur, Darjiling, 2000—3500 ft., 25-iv—ii-v-15 [*Gravelly*]; Tenmalai, Travancore, 21-xi-08, *type* ♂ [*Annandale*]; Nongpoh, Assam, ix-06, *type* ♀

*Type* ♂ in Indian Museum, *type* ♀ in Pusa coll.

**semifasciata** Brun., Rec. Ind. Mus. VI, 276, ♀ (1911).

*Id.*, Fauna Brit. Ind., 395, ♀, pl. vii, 16, wing.

Darjiling, 3—9-vi-09 [*Howlett*]; Kalimpong, 600—4500 ft. [*Gravelly*]; Sureil, iv, v-17 [*Kemp*]; Almora, Kumaon, 5500 ft. [*Paiva*]; Heho, S. Shan States, 7—9-iii-17 [*Gravelly*].

*Type* in Pusa collection.

**semistriata** Brun., Rec. Ind. Mus. VI, 277, ♀ (1911).

*Id.*, Fauna Brit. Ind., 394, ♀, pl. vii, 17, wing.

Pashok, Darjiling Distr., 2000—3500 ft. [*Gravelly*]; Paresnath, W Bengal, 4300—4500 ft., 15-iv-09 [*Annandale*]; Talewadi, 3—10-x-16 and Castle Rock [both N. Kanara Dist. and *Kemp*]; Shillong, 4900 ft., 10—12-x-14; Cherrapunji, Assam [both *Kemp*].

**flavicosta** Brun., Fauna Brit. Ind., 389, ♀, pl. viii, 2, wing, pl. xi, 6, dorsum of thorax (1912).

On board a launch, “at light” off Chandpal, Ganges Delta, 26-viii-09 [*Jenkins*]. *Type*, an incomplete unique specimen in Indian Museum.

**circipunctata**, *id.*, *loc. cit.*, 390, ♂ ♀, pl. viii, 3, wing, pl. xi, 3, thorax dorsum.

Port Canning [*Annandale*]; Lower Bengal, and Ganges Delta, var. locs., ii, iv, viii, ix, xi, xii (including Sorabkatti), 7-xii-09, *type* ♀, Calcutta; Sonarpur, near Calcutta, 5-ii-10, “at light” in railway carriage, *type* ♂ [*Annandale*]; “at light” on board steam launch off coast of Ganges Delta, var. locs. [*Jenkins*]; Sunderbunds [*Kemp*]; on board ship 10 miles off Masulipatam, Madras Coast, 4—5-iv-08 [*Paiva*]; Puri, 12-xi-10 [*Annandale*]. *Types* in Indian Museum.

**tridens**, *id.*, *loc. cit.*, 391, ♂ ♀, pl. viii, 4, wing; pl. xi, 45, thorax (1912).

Ganges Delta, var locs. in the Sunderbunds, including *type* ♂ from Sonadigee, 6-xii-09, and *type* ♀ from Chennia, 11-xi-09, all "at light" on steam launch. *Types* in Indian Museum.

**pulchripennis**, *id.*, *loc. cit.*, 393, ♀, pl. viii, 1, wing (1912).

Kurseong, 7-ix-09 [*Annandale*]; Shillong, 6400, 12-x-14 [*Kemp*]. *Type*, a unique ♀, in Indian Museum.

**notatipennis**, *id.*, Rec. Ind. Mus. VIII, 152, ♂, pl. vi, 1, wing (1913).

Dibrugarh, N.E. Assam, 17—19-xi-11 [*Kemp*].

*Type*, a unique specimen, in Indian Museum.

**decemguttata** de Meij., Tijd. v. Ent. LVI, 345, ♂ ♀, pl. xvii, 11, wing (1913).

Semarang, viii [*Jacobson*].

*Types* in Amsterdam Museum.

**brunnescens** de Meij., *loc. cit.*, LVIII, Supp. 10, ♂ (1916).

Sinabang, Simalur Is., Sumatra, ii [*Jacobson*].

Unique *type* in Amsterdam Museum.

**septemnotata** Edw., Ann. Mag. Nat. Hist. (8) XVIII, 246, ♀ (1916).

Arisan, Formosa, 8000 ft., 10-x-12 [*Nitobe*].

**linearis** Alex., Proc. U.S. Nat. Mus. XLIX, 163, ♂; pl. xlii, 7, wing (1916).

Tjibodas, Mt. Gedé, Java, 4500 ft. [*Bryant and Palmer*].

Unique *type*, Cat. No. 19,013, in U.S. Nat. Mus.

**javanica** Alex., *loc. cit.*, 164, ♀; pl. xlii, 8, wing (1916).

Batavia, 1-iv-09 [*Bryant and Palmer*].

Unique *type*, Cat. No. 19,014, in U.S. Nat. Mus.

**cornigera** Alex., Ins. Menstr. I, 137 (1914).

Pettit Barracks, Luzon [*Ludlow*]. *Type*: location unknown to present author.

**nigronotata** Brun., Rec. Ind. Mus. XV, 287, ♀ (1918).

Cherambadi, Wynaad, Malabar Distr., x-13 [*Howlett*].

*Type*, a unique ♀, presented to British Museum.

**flaviventris**, *id.*, *loc. cit.*, 288, ♂, pl. vii, 2, wing (1918).

Pashok, Darjiling, 3000 ft., 14-vi-16 [*Gravelly*].

*Type* in Indian Museum.

#### **Aporosa**,<sup>1</sup> Macq.

In Webb and Berth, Hist. Nat. d'iles Canaries:

Entom. Dipt. 100 (1838).

Macq., Dipt. Exot., I, 1, 62 (1838).

<sup>1</sup> *Geranomyia* and *Aporosa* differences: v. Brun., Rec. Ind. Mus. XV, 288. Kertész ranks *Aporosa* as synonymous with *Geranomyia*, but Bergroth more recently keeps them apart. See note on *Elephantomyia*, p. 230.

GENOTYPE, *Geranomyia canariensis* Berg., as *maculipennis*, sp. nov. by Coquillett's designation.

**aurantia** Brun., Rec. Ind. Mus. XV, 289, ♀ (1918).

Above Tura, Garo Hills, 3,500—3,900 ft., vii-17 [*Kemp*].  
*Type* in Indian Museum.

### Limnobia, Mg.

Syst. Besch, I, 116 (1818).

Sch., F. Austr. II, 565: Ost. Sack., Monog. Dipt. N. Amer. IV, 84: *id.*, Berl. Ent. Zeits. XXXI, 177: Brun., Fauna Brit. Ind., 396: *Auctt.*

GENOTYPE, *Tipula 3-punctata* F., according to (but not designated by) Coquillett, 1910.

*Numantia*, Big. pt., Ann. Soc. Ent. Fran. (3) II, 470 (1854).<sup>1</sup>

*Limnomyza*, Rond., Dipt. Ital. Prod. I, 185 (1856).

GENOTYPE, *Tipula 3-punctata* F., by original designation.

**costalis** Wied., Anal. ent. 10 (1824).

*Id.*, Auss. Zweifl. I, 35: Brun., Rec. Ind. Mus. VI, 271.

East India. *Type* in Copenhagen Museum, in bad condition. Possibly not a true *Limnobia*. No sex of *type* stated, and now indeterminable.

**apicalis** W., Auss. Zweifl. I, 551, ♂ (1828).

Brun., Rec. Ind. Mus. VI, 271.

Sumatra. Possibly *Dicranomyia saltens*, Dol., is identical with this species.

*Type*, a fragment, in Winthem's collection, Vienna Museum.

**bibula** W., Auss. Zweifl., 552, ♀ (1828).

Brun., Rec. Ind. Mus. VI, 271.

China. *Type* in Trentepohl's collection, Vienna Museum.

Probably a true *Limnobia*, according to Osten Sacken, but possibly it should have no place in oriental lists.

**sanguinea** Dol., Nat. Tijd. Ned. Ind. XIV, 391, pl. ii, 5, full insect (1857).

Brun., Rec. Ind. Mus. VI, 271, notes.

Java. *Type*, location unknown to present author.

**infixa** Walk., Proc. Linn. Soc. Lond. VIII, 104 (1865).

Ost. Sack., Berl. Ent. Zeits. XXXI, 178: Brun., Rec. Ind. Mus. VI, 271.

Papua. *Type* in British Museum, in bad condition.

<sup>1</sup> See under *Dicranomyia*, p. 212.

**cinctiventris** Brun., *Fauna Brit. Ind.*, 382, ♀ (*Dicranomyia*) (1912).  
*vitripennis*, *id.*, *loc. cit.*, 405 ♀ (1912).

Kurseong, 15-iv-11, *type*, *cinctiventris* [*Annandale*]; Darjiling, 30-ix-08 (*type*, *vitripennis*) 6900 ft. [*Brunetti*]; Mahableshtar, Satara Distr., 4200 ft. [*Gravely*]. *Types* in Indian Museum.

**festiva** Brun., *Fauna Brit. Ind.*, 400, ♂, pl. vii, 13, wing (1912).

*Id.*, *Rec. Ind. Mus.* XV, 289.

Darjiling, 7000 ft., 11-vi-14 [*Lord Carmichael's colln.*]; Kurseong, vi-1910. *Type* in Indian Museum.

**tinctinervis**, *id.*, *Faun. Brit. Ind.*, 401, ♀, pl. vii, 12, wing (1912).

Darjiling, 10-viii-09 [*Paiva*].

*Type*, a unique ♀, in Indian Museum.

**indica**, *id.*, *loc. cit.*, 401, ♂ ♀, pl. vii, 15, wing, pl. xi, 1, ♂ genitalia (1912).

Mussoorie, ix-06 [*Howlett*]; Calcutta, not uncommon, Sept. to Feb.; Katihar, 7—31-viii-10; Madhupur, Bengal, 13-x-09 [*Paiva*]; Monghyr, Bihar [*Jenkins*]; Pusa, 18—20-ii-08, on moss, 18-iii-13; 20-ix-13; ix-07; 17-xii-12; Puri [*Paiva*]; Kalyan, Bombay 7-x-13; Maddathorai, and Nedumangad [both Travancore and *Annandale*]; Ernakulam, Cochin, 11—14-ix-14 [*Gravely*]. *Types* in Indian Museum.

**trimaculata**, *id.*, *loc. cit.*, 402, ♂ ♀, pl. vii, 16, wing (1912).

Ghumti, 4000 ft. [*Gravely*]; Kurseong, 3—5-vii-08; 18—29-vi-09 [*Annandale*]; on low herbage and "at light"; Lucknow [*Caunter*]; Shillong, 5500—6400 ft. [*Kemp*].

*Types* in Indian Museum.

**longinervis**, *id.*, *loc. cit.*, 403, ♀, pl. vii, 14, wing (1912).

Kurseong, 5-ix-09 [*Annandale*].

*Type*, a unique ♀, in Indian Museum.

**centralis**, *id.*, *loc. cit.*, 403, ♂ ♀ (1912).

Kurseong, 18—23-vi-10 [*Annandale*].

*Types* in Indian Museum.

**niveipes**, *id.*, *loc. cit.*, 404, ♀ (1912).

Darjiling, 28-v-10 [*Brunetti*].

*Type*, a unique ♀, in Indian Museum.

**nigra**, *id.*, *loc. cit.*, 404, ♂ ♀ (1912).

Kurseong, 4700—5000 ft. [*Annandale*]; Pallode, Travancore, 15-xi-08 [*Annandale*]; Talewadi, N. Kanara Dist., 3—10-x-16 [*Kemp*]. *Types* in Indian Museum.

**triangularis**, *id.*, *loc. cit.*, 406, ♀ (1912).

Barogh, Simla Hills, 5000 ft., 10-v-10 [*Annandale*].

*Type*, a unique specimen, in Indian Museum.

**annulifemur** de Meij., *Tijd. v. Ent.* LVI, 344, ♂, pl. xvii, 12, wing (1913).

Nongkodjadjar, Java, 1 [*Jacobson*]; Tjibodas, Mt. Gedé, Java, 8000 ft. [*Bryant and Palmer*]; Korinchi, Sumatra, 7300 ft., v-14. *Type*, unique, in Amsterdam Museum.

- crocea** Edw., Ann. Mag. Nat. Hist. (8) XVII, 353, ♂ (1916).  
Sungkie, Siam, 9-ii-02 [*Robinson and Annandale*].  
Unique *type* in British Museum.
- nitobei**, *id.*, *loc. cit.*, XVIII, 247, ♂, pl. xii, 2, genitalia (1916).  
Arisan, Formosa, 8000 ft., 10-x-12 [*Nitobe*].  
Unique *type* in British Museum.
- flavocincta** Brun., Rec. Ind. Mus. XV, 289, ♀ (1918).  
Mahabaleshwar, Satara Distr., W India, 4200 ft., 13—16-iv-12 [*Gravelly*]. *Type* in Indian Museum.
- marginata**, *id.*, *loc. cit.*, XV, 290, ♀, pl. viii, 7, wing (1918).  
Mahabaleshwar, Satara Distr., 4,200 ft., 13—16-iv-12 [*Gravelly*].  
*Type* in Indian Museum.
- confinis**, *id.*, *loc. cit.*, 290, ♂ ♀ (1918).  
Above Tura, Garo Hills, Assam, 3500—3900 ft., vii, viii, 17 [*Kemp*]. *Types* in Indian Museum.
- bipunctata**, *id.*, *loc. cit.*, 291, ♂ (1918).  
Taken in company with the above.
- tritincta**, *id.*, *loc. cit.*, 291, ♂ ♀, pl. viii, 9, wing (1918).  
Taken in company with *L. confinis*.  
*Type*, ♂ ♀ *in cop.*, in Indian Museum.
- 5-notata**, *id.*, *loc. cit.*, 292, ♂, pl. viii, 8, wing (1918).  
Taken in company with *L. confinis*.  
Unique *type* in Indian Museum.
- longipennis**, *id.*, *loc. cit.*, 292, ♂ (1918).  
Taken in company with *L. confinis*.  
Unique *type* in Indian Museum.
- nigrescens**, *id.*, *loc. cit.*, 293, ♂ (1918).  
Taken in company with *L. confinis*.  
*Type* in Indian Museum.
- punctithorax**, *id.*, *loc. cit.*, 293, ♂, fig. 1, thorax, side view (1918).  
Talewadi, N. Kanara Distr., 9—10-x-16 [*Kemp*].  
Unique *type* in Indian Museum.
- trigonia** Edw., Jour. Fed. Malay Sts. Mus. VIII, 15, ♂, pl. iii, fig. 4 *a b*, genitalia; pl. iv, fig. 10, wing (1919).  
Siolak Daras, Sumatra, 3000 ft., iii-14, a unique ♂
- striopleura**, *id.*, *loc. cit.*, 16, ♀ (1919).  
Korinchi Peak, Sumatra, 7300 ft., v-14, a unique ♂
- sp. incert.: **aterrima** Walk., Ins. Saund. Dipt., 434, ♀ (1856).  
Brun., Rec. Ind. Mus. VI, 271.  
East India.  
*Type*, location unknown, *not* in the British Museum. Osten Sacken has suggested this may be an *Eriocera*.

**Rhipidia, Mg.**

Syst. Besch. I, 153 (1818).

Sch., F. Austr. II, 564: Ost. Sack., Monog. Dipt. N. Amer. IV, 81: *id.*, Berl. Ent. Zeits. XXXI, 174: *Auctt.*GENOTYPE, *R. maculata* Mg., by original designation.*Ceratostephanus*, Brun., Rec. Ind. Mus. VI, 271 (1911).GENOTYPE, *C. antennatus*, *id.*, sp. nov., *loc. cit.***javanensis** de Meij., Tijd. v. Ent. LIV, 31, ♂ (1911).

Alex., Proc. U.S. Nat. Mus. XLIX, 164, pl. xlii, 9, wing.

Tosari, Java, iii-1910 [*Beaufort*].

Tjibodas, Mt. Gedé, Jaya, 4500, 8000, 9000 ft.

*Type* in Amsterdam Museum.**antennatus** Brun., Rec. Ind. Mus. VI, 272, ♂ (*Ceratostephanus*) (1911).*Id.*, Fauna Brit. Ind., 407, ♂, pl. xi, 17, antenna.Simla, 24-iv-07 [*Annandale*].*Type*, a unique ♂, in Indian Museum.**bioculata** de Meij., Tijd. v. Ent. LVIII, Supp., 11, ♂ (1913).

Lasikin, Simalur Is., Sumatra, iv.

Unique *type* in Amsterdam Museum.**rostrifera** Edw., Ann. Mag. Nat. Hist. (8) XVII, 352, ♂ (1916).Kedah Peak, 3200 ft., Malay Peninsula [*Stanton*].*Type* in British Museum. Originally described from a single specimen but both sexes subsequently received from the same locality: one ♀ from Korinchi Peak, Sumatra.**Atypophthalmus, Brun.**

Rec. Ind. Mus. VI, 273 (1911).

Brun., Fauna Brit. India, 408.

GENOTYPE, *A. holopticus* Brun., by original designation.**holopticus** Brun., Rec. Ind. Mus. VI, 273 (1911).*Id.*, Fauna Brit. Ind., 408, ♂ ♀, pl. xi, 9, ♂ genitalia.Calcutta, 8-ix-10, *type* ♂ in spider's web, 20-viii 09, *type* ♀ in house at night [both *Annandale*].*Types*, unique, in Indian Museum.Alexander queries the validity of this genus and would merge it in *Rhipidia* Mg., but he overlooks the fact that the antennae are of normal cylindrical form and not pectinate.**Goniodineura, Wulp.**

Tijd. v. Ent. XXXVIII, 37 (1895).

GENOTYPE, *G. nigriceps*, *id.*, sp. nov., *loc. cit.*

**nigriceps** Wulp, *loc. cit.*, 38, pl. II, 3, ♀ (1895).

Alex., Proc. U.S. Nat. Mus. XLIX, 165, pl. xlii, 10, wing.

Java [*t. Wulp*]; Buitenzorg, iii-09 [*Bryant and Palmer*]; Pulu Pandjang Is. off W. Coast, Sumatra, ii.

*Type* lost; originally in Amsterdam Museum.

#### Dapanoptera, Ost. Sack. in Westw.

Trans. Ent. Soc. Lond., 365 (1881).

Ost. Sack., Berl. Ent. Zeits. XXXI, 178.

GENOTYPE, *Limnobia perdecora* Walk., by my designation.

**perdecora** Walk., Proc. Linn. Soc. V, 230, ♂ (*Limnobia*) (1861).

Papua. *Type* in British Museum in good condition.

**auroatra** Walk., *loc. cit.*, VII, 202, ♂ (*Limnobia*) (1864).

Mysol. *Type* in British Museum, in good condition.

**plenipennis** Walk., *loc. cit.*, VIII, 103, ♂ (*Limnobia*) (1865).

Westw., Trans. Ent. Soc. Lond., 366, pl. xvii, 2 (1881).

Papua. *Type* in British Museum, in fair condition.

**latifascia** Walk., Proc. Linn. Soc. Lond., VIII, 104, ♀ (*Limnobia*) (1865).

Papua. *Type* in British Museum, in good condition.

**lorentzi** de Meij., Nov. Guin. Res. IX, 307, ♂ ♀, pl. x, 1, wing (1913).

S.W. Papua; Bivak Is., Regen Is.

*Type* in Amsterdam Museum.

**fascipennis**, *id.*, *loc. cit.*, 307, ♂ (1913).

Alkmaar, S.W. Papua. Unique *type* in Amsterdam Museum.

**pallida**, *id.*, *loc. cit.*, 307, ♂ (1913).

Alkmaar, S.W. Papua, x, 1909. Utakwa River, 4000—6000 ft., Dutch Papua, i, ii-13. *Type* in Amsterdam Museum.

**pulchra** de Meij., Tijd. v. Ent. LVIII, 103, ♂ (1915).

North Papua.

**versteegi** de Meij., Nov. Guin. Res. XIII, 52 (1915).

Papua.

#### Libnotes, Westw.

Trans. Ent. Soc. Lond., 505 (1876).

Ost. Sack., Berl. Ent. Zeits. XXXI, 179, notes and tab. spp.

Brun., Rec. Ind. Mus. VI, 278, notes on oriental spp.: *id.*, Fauna Brit. Ind., 409.

GENOTYPE, *L. thwaitesiana* Westw., by original designation.



- impressa** Walk., Proc. Linn. Soc. Lond. I, 106, ♀ (*Limnobia*) (1857).  
Sarawak. *Type* in British Museum, useless for comparison.
- aurantiaca** Dol., Nat. Tijd. Ned. Ind. XVII, 78, ♂ (*Limnobia*) (1858).  
Ost. Sack., Berl. Ent. Zeits. XXXI, 181: Brun., Rec. Ind. Mus. VI, 278.  
Amboina. *Type*, damaged, in Vienna Museum.
- imponens** Walk., Proc. Linn. Soc. Lond. IV, 92, ♀ (*Limnobia*) (1860).  
Makassar. *Type* in British Museum, useless for comparison.
- strigivena** Walk., *loc. cit.*, V, 229, ♂ (*Limnobia*) (1861).  
de Meij., Tijd. v. Ent. LIV, 35, notes: *loc. cit.*, LVI, 346: Brun., Rec. Ind. Mus. VI, 278.  
Papua (Dorey). Ungaren, ix; Nongkodjadjar [both Java and *Jacobson*]; Mt. Silak, Java, 15-v-09 [*Bryant* and *Palmer*]. *Type* in British Museum, in bad condition, but the wing markings are sufficiently conspicuous to identify the species. De Meijere (*loc. cit.*) notes the apparent ♀ from Bandung, Java, vi [*Preanger*].
- quadrifurca** Walk., Proc. Linn. Soc. Lond. V, 230, ♀ (*Limnobia*) (1861).  
Papua (Dorey). *Type* in British Museum, in bad condition: the wing markings conspicuous.
- innotabilis** Walk., *loc. cit.*, VII, 231, ♀ (*Limnobia*) (1864).  
Ceram. *Type* in British Museum, in bad condition.
- <sup>1</sup> **thwaitesiana** Westw., Trans. Ent. Soc. Lond. 505, ♂, pl. iii, 6 (1876).  
*L. rufa* de Meij., Tijd. v. Ent. LIV, 39, ♀, pl. ii, 24, wing (1911).  
*Id.*, Brun., Rec. Ind. Mus. VI, 279 (♂ descr.): *id.*, Fauna Brit. Ind., 414, ♂ ♀  
Ceylon; Semarang, iii [*Jacobson*]; Calcutta, 5-viii-08 [*Annan-dale*]; Pusa, 17-xi, 2-xii-13, both on bark of jackfruit tree; Peradeniya, 13, 17-vii-10 [*Gravelly*], x, xi, 11 [*t. Edwards*]; Talewadi, N. Kanara dist. [*Kemp*]. *Type* (*thwaitesiana*) in Hope coll., Oxford University Museum, in inferior condition, but recognition possible; *type* of *rufa* in Amsterdam Museum.
- notata** Wulp, Tijd. v. Ent. XXI, 194, pl. xii, 5, ♂ (1878).  
*Id.*, Dipt. Sum. Exp. 12: de Meij., Tijd. v. Ent. LIV, 34 (♀ descr.) (1911); Enderl., Zool. Jahr. XXXII, 82: Brun., Rec. Ind. Mus. VI, 279.

<sup>1</sup> Omitted by error from my Fauna volume, but *thwaitesiana* was included as *rufa*, Meij.

Sumatra; Lauulo, Simalur Is., nr. Sumatra, viii; Semarang, iii, xi [*Jacobson*], Myithyina, Up. Burma, 30-viii—1-ix-14 [*Fletcher*]; Peradeniya [*Gravelly*]; Talewadi [*Kemp*].

*Type* originally in Amsterdam Museum, now lost; other specimens present.

**simplex** Ost. Sack., Ann. Mus. Gen. XVI, 402, ♂ (1880).

Ternate. *Type* in Genoa Museum in poor condition, apparently unique.

<sup>1</sup> **poeciloptera**, *id.*, *loc. cit.*, 403, ♂ ♀ (1880).

Brun., Rec. Ind. Mus. VI, 279; Enderl., Zool. Jahr. XXXII, 82.

Pangerando, Java, x [*Jacobson*]; Tenggergebirge, Java [*Piepers*]; Sumatra; Pundaluoya, Ceylon [*Green*]; Sinabang, ii; Sibigo, viii, both Simalur Is., off Sumatra. *Types* originally in Genoa Museum, but only one specimen now remains.

**semperi** Ost. Sack., Berl. Ent. Zeits. XXVI, 88, ♀ (1882).

Philippines. *Type*, unique, originally in Osten Sacken's collection, now apparently lost.

**termitina** Ost. Sack., *loc. cit.*, 88, ♂ ♀ (1882).

Philippines. *Types*, a unique pair, originally in Osten Sacken's collection, now apparently lost.

**familiaris** Ost. Sack., *loc. cit.*, 89, ♂ (1882).

de Meij., Tijd. v. Ent. LIV, 37, ♂ ♀ descr., pl. ii, 22, wing: *id.*, Nova Guin. Res. IX, 309; Brun., Rec. Ind. Mus. VI, 279, notes.

Philippines; Wonosobo, Java, v; Batavia, ii [both *Jacobson*]; Riverkamp, S. W. Papua, 12-ii-10 [*Lorentz*]; Sinabang, Simalur Is., off Sumatra, iii.

*Type* originally in Osten Sacken's collection, now apparently lost.

**punctipennis** de Meij., Tijd. v. Ent. LIV, 35, ♂ ♀, pl. ii, 20, wing (1911).

Brun., Rec. Ind. Mus. VI, 279: *id.*, Fauna Brit. Ind., 413, ♂ ♀, pl. viii, 6, wing.

Darjiling, 6-viii-09 [*Paiva*], Kavalai, Cochin, 1300—3000 ft., 24—27-ix-14 [*Gravelly*]; Parambikulam, Cochin, 1700—3200 ft., 16—24-ix-14 [*Gravelly*]; Talewadi and Castle Rock, N. Kanara Dist. [*Kemp*]; Tura, Garo Hills, vii-17 [*Kemp*]; Mazbat, Assam, 11—15-x-10 [*Kemp*]; Dibrugarh, 17—19-xi-11 [*Kemp*]; Peradeniya, 5-viii-10, 15-x-09 [*Green*; *Gravelly*]; Batavia, ii; Wonosobo, iv, Semarang, i [all Java and *Jacobson*].

*Type* in Amsterdam Museum.

**nervosa** de Meij., Tijd. v. Ent. LIV, 36, ♂, pl. ii, 21, wing (1911).

Wonosobo, v; Semarang, ii [both Java and *Jacobson*]; Sinabang, ii, vi; Lasikin, iv; Pulu Babi, iv, all off W. Coast Sumatra; Buitenzorg, 9-iv-09 [*Bryant and Palmer*].

*Type* in Amsterdam Museum.

<sup>1</sup> Omitted by error from my Fauna volume.

- forcipata**, *id.*, *loc. cit.*, 38, ♂ ♀, pl. ii, 23, wing (1911).  
Wonosobo, Java, iv [*Jacobson*]. *Types* in Amsterdam Museum, a unique pair.
- fuscinervis** Brun., *Fauna Brit. Ind.*, 411, ♂, pl. viii, 5, wing, pl. xi. 8, ♂ genitalia (1912).  
*Id.*, *Rec. Ind. Mus.* XV, 295.  
Darjiling, 9-viii-09 [*Paiva*]; 5-viii-09; 22-ix-08 [*Brunetti*];  
Kalimpong, 600—4500 ft. [*Gravelly*], N.E. Ind. Frontier, 4000 ft., 18-iii-12 [*Kemp*]. *Type* in Indian Museum.
- notatinervis** Brun., *Fauna Brit. Ind.*, 412, ♀, pl. viii, 7, wing (1912).  
Kurseong, 6-ix-09 [*Annandale*]; Ghumti, 4000 ft. [*Gravelly*];  
Pattipola, Ceylon, 6000 ft. [*Annandale*], Shillong [*Kemp*].  
*Type* in Indian Museum.
- affinis** de Meij., *Nova Guin. Res.* IX, 308, ♀, pl. x, 2, wing (1913).  
*Id.*, *Tijd. v. Ent.* LVI, 346.  
Bivak Is., S.-W Papua, xii; Gunung, Ungaren, ix [*Jacobson*].  
*Type* in Amsterdam Museum, unique.
- punctatissima** de Meij., *Tijd. v. Ent.* LVIII, 58, ♂ (1915).  
North Papua. *Unique type* in Amsterdam Museum.
- scutellata** Edw., *Ann. Mag. Nat. Hist.* (8) XVII, 353, ♂ ♀, fig. 2, p. 356, genitalia (1916).  
Talum, Perak-Pahang boundary, 18-i-02 [*Robinson; Annandale*].  
*Type* in British Museum.
- stantoni**, *id.*, *loc. cit.*, 354, ♀ (1916).  
Kedah Peak, Malay Peninsula, 3200 ft. [*Stanton*].  
*Type* in British Museum, a unique ♀
- limpida**, *id.*, *loc. cit.*, 355, ♀ (1916).  
Taken in company with above.  
*Type*, a unique ♀, in British Museum.
- lutea**, *id.*, *loc. cit.*, 357, ♀ (1916).  
Taken in company with *stantoni*.  
*Type* in British Museum, a unique specimen.
- transversalis** de Meij., *Tijd. v. Ent.* LIX, 198 (1916).  
Gedeh, Java, 1625—2400 metres, v; 1 ♂ [*Konigsberger*] (1916). *Unique type* in Amsterdam Museum.
- sumatrana** Edw., *Jour. Fed. Malay Sts. Mus.* VIII, 17, ♂, pl. iii, fig. 5, genitalia; pl. iv, fig. 11, wing (1919).  
Korinchi Peak, Sumatra, 7300 ft. v-14, Sungei Kumbang, Sumatra, 4500 ft., iv-14.
- regalis** Edw., *loc. cit.*, XVIII, 248 (1916).  
Taihoku, Formosa [*Shiraki*]. The much damaged unique *type* in British Museum.
- montivagans** Alex., *Proc. U.S. Nat. Mus.* XLIX, 166, ♂ ♀, pl. xliii, 12, wing (1916).  
Tjibodas, Mt. Gedé, Java, 8000 ft. [*Bryant and Palmer*].  
*Type*, Cat. No. 19,015, in U.S. Nat. Mus.

- nigricornis**, *id.*, *loc. cit.*, 166, ♂ ♀, pl. xliii, 13, wing (1916).  
Tjibodas, Mt. Gedé, Java, 4,500 ft. [*Bryant and Palmer*].  
*Type*, Cat. No. 19,016, in U.S. Nat. Mus.
- opaca** Bezzi, Phil. Jour. Sci. XII, Sect. D, 116, ♂ (1917).  
Luzon [*Baker*].
- marginalis**, *id.*, *loc. cit.*, 116, ♂ (1917).  
Luzon [*Baker*].

## Section RHAMPHIDINI.

**Rhamphidia**, Mg.

Syst. Besch. VI, 281 (1830).

Sch., F. Austr. II, 558: Ost. Sack., Monog. Dipt. N. Amer. IV, 103: Berl. Ent. Zeits. XXXI, 183: Brun., Fauna Brit. Ind., 416: *Auctt. var.*GENOTYPE, *Limnobia longirostris* Mg., by Westwood's designation (1840).*Megarhina*, St. Farg. et Serv., Encyc. Meth. Ins. X, 585 (1825).GENOTYPE, *Limnobia longirostris* Mg., by original designation.*Helius*, *id.*, *loc. cit.*, 831 (1835).Nom. nov. for *Megarhina* under supposed pre-occupation by *Megarhinus* Rob. Desv.*Leptorhina*, Steph., Cat. Brit. Ins. II, 243 (1829).

GENOTYPE, unknown to present author.

- ferruginosa** Brun., Fauna Brit. Ind., 418, ♂, fig. 41, head, profile; pl. viii, 8, wing, pl. xi, 11, ♂ genitalia (1912).  
Pashok, Darjiling Distr., 2000—3500 ft., 23-iv—11-v-15 [*Gravelly*]; base of Dawna Hills, Lower Burma, 2-iii-08 [*Annan-dale*]. *Type* in Indian Museum.
- unicolor**, *id.*, *loc. cit.*, 419, ♂ (1912).  
*Id.*, Rec. Ind. Mus. XV, 296.  
Darjiling, 7000 ft., 8-viii-09 [*Paiva*].  
*Type* in Indian Museum.
- inconspicua** Brun., Fauna Brit. Ind., 419, ♂ (1912).  
Kurseong, 16-iv-11 [*Annan-dale*]; Kalimpong, 600—4500 ft., 24-iv—10-v-15 [*Gravelly*]; Pachmarhi, 20-ix-13, near waterfall.  
*Type* in Indian Museum.
- kambangani** de Meij., Tijd. v. Ent. LVI, 346, pl. xvii, 13, wing (1913).  
Nusa, Kambangan, an island off S. coast of Java [*Jacobson*].  
*Type* in Amsterdam Museum.
- apicalis** Alex., Proc. U.S. Nat. Mus., XLIX, 167, ♂ ♀ pl. xliii, 15, wing (1916).  
Tjibodas, Mt. Gedé, Java, 4500 ft., 8000 ft. [*Bryant and Palmer*]. *Type*, No. 19017, in U.S. Nat. Mus.

**nigriceps** Edw., Ann. Mag. Nat. Hist. (8) XVII, 358, ♂ ♀ ; fig. 3, p. 356, genitalia (1916).

Bukit Besar, Siam, *type* ♂ ; Talum, Perak-Pahang boundary, 18-1-01 [*Robinson and Annandale*]. *Types* in British Museum.

**rufescens** Edw., *loc. cit.*, 358, ♀ (1916).

Bukit Kutu, Selangor, ii-03 [*Durham*].

*Type* in British Museum.

**fratella** Brun., Rec. Ind. Mus., XV, 296, ♂ ♀ (1918).

Castle Rock, N. Kanara Dist., 11-26-x-16 [*Kemp*]: Ginting Bidai, 2000 ft.; Selangor-Pahang Frontier, Federated Malay States, iv-17 [*C. Boden Kloss*]. *Types* in Indian Museum.

**abnormalis** Brun., Rec. Ind. Mus., XV, 296, ♀ , pl. vii, 3, wing (1918).

Cherrapunji, Assam, 4400 ft., 2-3-x-14 [*Kemp*].

The unique *type* in the Indian Museum.

#### Subgenus **Eurhamphidia**, Alex.

Proc. U. S. Nat. Mus. XLIX, 168 (1916).

GENOTYPE, *Rhamphidia niveitarsis* Skuse, by original designation.

**monticola** Edw., Jour. Fed. Malay Sts. Mus., VIII, 18, ♀ , pl. iv, fig. 12, wing (1919).

Korinchi Peak, Sumatra, 7300 ft., iv-14.

*Type* in British Museum.

**niveitarsis** Skuse, Proc. Linn. Soc. N.S. Wales (2) IV, 791 (*Rhamphidia*) (1889).

Alex., Proc. U.S. Nat. Mus. XLIX, 168, ♂ ♀ , pl. xliii, 16, wing.

Tjibodas, Mt. Gedé, 8000, 9,000 ft.; Pangranggo, 9000 ft. [both Java and *Bryant and Palmer*].

*Type*: location unknown to present author.

#### Sub-genus, **Rhampholimnobia**, Alex.

Proc. U.S. Nat. Mus. XLIX, 169 (1916).

GENOTYPE, *R. reticularis*, *id.*, sp. nov., *loc. cit.*

**reticularis** Alex., *loc. cit.*, 169, ♀ , pl. xliii, 17, wing (1916).

Tjibodas, Mt. Gedé, Java, 4,500 ft. [*Bryant and Palmer*].

*Type*, Cat. No. 19018, in U.S. Nat. Mus.

#### **Limnobiorhynchus**, Westw.<sup>1</sup>

Ann. Soc. Ent. Fran. IV, 683, ♀ only (1835).

Brun., Rec. Ind. Mus. XV, 298.

GENOTYPE, *Limnobiorhynchus westwoodi*, *nom. nov.* for *L. brasiliensis*, Westw., sp. nov., ♀ only; by my own designation, 1918.

<sup>1</sup> See Rec. Ind. Mus. XV, 297 on the *Elephantomyia* group.

**incertus** Brun., Fauna Brit. Ind., 422 ♀ ; pl. viii, 9 wing ; xi, 12, ♀ genitalia (*Toxorhina*) (1912).<sup>1</sup>

*Id.* Rec. Ind. Mus. XV, 298.

Kurseong, 27-vi-10 [*Annandale*]. Unique *type* in Indian Museum. The genus *Toxorhina* does not now appear to be oriental.<sup>2</sup>

### **Ceratocheilus**, Wesché.

Jour. Linn. Soc. XXX, 358 (1910).

GENOTYPE, *C. winn-sampsoni*, sp. nov., *loc. cit.*, the 1st species, by present designation.

*Neostyringomyia*, Alex., Canad. Ent. XLIV, 85 (as subgenus of *Styringomyia*) (1912).

GENOTYPE, *Styringomyia cornigera* Speis., by original designation.

*Conithorax*, Brun., Rec. Ind. Mus. XV, 298 (1918).

GENOTYPE, *C. latifrons*, sp. nov., *loc. cit.*

I have to thank Mr. Chas. Alexander for the above synonymy (*in litt.*). *Ceratocheilus* at its inception was considered by Wesché to represent a new subfamily having affinities with the Ptychopterinae. The exact position of *Styringomyia* is also uncertain. Some authors refer it to the Rhamphidiini, others to the Eriopterini.

**latifrons** Brun., *loc. cit.* 299, ♀ , fig. 2, antenna, 3, wing (*Conithorax*) (1918).

Bidai, Selangor-Pahang Frontier, Federated Malay States, iv-17 [*C. Boden Kloss*]. Unique *type* in Indian Museum.

**brevifrons**, *id.*, *loc. cit.*, 300, ♀ (*Conithorax*) (1918).

Above Tura, Garo Hills, 3500—3900, viii-17 [*Kemp*]. Unique *type* in Indian Museum.

### **Elephantomyia**, Ost. Sack.

Proc. Acad. Nat. Sci. Philad. 220 (1859).

Ost. Sack., Monog. Dipt. N. Amer. IV, 106, pl. i, 5, wing, iii, 8, forceps: *id.*, Berl. Ent. Zeits. XXXI, 184: Brun., Rec. Ind. Mus. XV, 297, *Elephantomyia* group.

GENOTYPE, *E. westwoodi* Ost. Sack. (as *Limnobiorhynchus canadensis*, Westw.), by original designation.

<sup>1</sup> In the note after the description of this species the first sentence is misleading. In the description itself it is stated that the discal cell is open in one wing and closed in the other in the unique type. In penning the phrase commencing "though the discal cell is open, etc. (Fauna, p. 423), I must have overlooked this anomaly and observed only the left wing, in which the cell is open; and, although this explanation makes the text intelligible, it admittedly does not excuse a want of care in examination. My figure shews the cell closed as it normally is in this genus and as is stated both in my generic description (l.c. p. 421), and in Loew's.

<sup>2</sup> See Rec. Ind. Mus. XV, 300, for discussion.

- argento cincta** Walk., Proc. Linn. Soc. I, 107, ♀ (*Limnobia*) (1857).  
Sarawak. *Type* in British Museum, useless for comparison and apparently unique.
- delectata**, *id.*, *loc. cit.*, VII, 231, ♂ ♀ (*Limnobia*) (1864).  
Ceram. *Types* in British Museum, useless except for conspicuous wing markings.
- filiformis**, *id.*, *loc. cit.*, VIII, 131, ♂ (*Limnobia*) (1865).  
Salawatti.  
*Type* in British Museum, valueless, apparently unique.
- fuscomarginata** Ender., Zool. Jahr. XXXII, 64, ♂ fig. N, 1, wing (1912).  
Sumatra (Sinabong).  
*Type*, a unique ♂, in Stettin Zoological Museum.
- egregia** de Meij., Tijd. v. Ent. LVI, 347, ♂, pl. xvii, 14, wing (1913).  
Nongkodjadar, Java, i [*Jacobson*].  
*Type*, a unique ♂, in Amsterdam Museum.

**Dicranoptycha**, Ost. Sack.

- Proc. Acad. Nat. Sci. Philad., 203 and 217 (1859).  
Ost. Sack., Monog. Dipt. N. Amer., IV, 116, pl. i, 8, wings.  
GENOTYPE, *D. germana* Ost. Sack., by Coquillett's designation.
- signaticollis** Wulp, Tijd. v. Ent. XXXVIII, 36, pl. ii, 1, ♂ (1895).  
Brun., Rec. Ind. Mus. VI, 280.  
Java. *Type* lost, originally in Amsterdam Museum.

**Orimarga**, Ost. Sack.

- Monog. Dipt. N. Amer. IV, 120, pl. i, 9, wing (1869).  
Ost. Sack., Berl. Ent. Zeits. XXXI, 186:  
Brun., Fauna Brit. Ind., 423.  
GENOTYPE, *Limnobia alpina* Zett., by original designation.
- Ninguis**, Wallengren, Entom. Tidskr. II, 183 (1881).  
GENOTYPE, *Limnobia virgo* Zett., by Coquillett's designation.
- ? **Spyloptera**, Rond., Dipt. Ital. Prod. I, 181 (1856).
- borneensis** Brun., Rec. Ind. Mus. VI, 280, ♀ (1911).  
Sarawak, 10 miles s. of Kuching, 27-vi-10 [*Beebe*]. *Type*  
in Indian Museum.

**peregrina**, *id.*, Fauna Brit. Ind., 424, ♂, pl. viii, 11, wing (1912).

Brun., Rec. Ind. Mus. XV, 309.

Kurseong, 29-vi-10, [*Annandale*]; Ghumti, Darjiling Distr., vii-11 [*Gravelly*], Pashok, 3500 ft. [*Hartless*].

*Type*, a unique specimen, in Indian Museum.

**javana** de Meij., Tijd. v. Ent. LVI, 348, ♀, pl. xvii, 15, wing (1913).

Nongkodjadjar, i [*Jacobson*].

*Type*, a unique ♀, in Amsterdam Museum.

### Antocha, Ost. Sack.

Proc. Acad. Nat. Sci. Philad., 219 (1859).

Sch., F. Austr. II, 558.

Ost. Sack., Berl. Ent. Zeits. XXXI, 187; Brun., Fauna Brit. Ind., 425.

GENOTYPE, *A. opalizans* Ost. Sack., as *saxicola* Ost. Sack.

*Taphrophila*, Rond., Dipt. Ital. Prod. I, 185 (1856).

GENOTYPE, *Limnobia inusta* Mg., by original designation.

*Orimargula*, Mik., Wien. Ent. Zeitg. II, 198, fig. (1883).

GENOTYPE, *O. alpigena*, sp. nov., *loc. cit.*

**indica** Brun., Fauna Brit. Ind., 426, ♂ ♀, pl. viii, 12, wing (1912).

Phagu, 12-v-09; Theog., 2-v-07 [all *Annandale*]; Kurseong, 9-ix-09, *type* ♀; 16-iv-11, *type* ♀, Kalimpong, 600—4500 ft., 1—24-iv—10-v-15 [*Gravelly*]; Pashok 4500 ft. [*Gravelly*]; Almora, Kumaon, 5500 ft., 11—12-vi-11 [*Paiva*]; Darrang Distr., Assam-Bhutan Frontier, 26-xii-10 [*Kemp*].

*Type* in Indian Museum.

**unilineata**, *id.*, *loc. cit.*, 427, ♀ (1912).

Mundali, Dehra Dun, 9000 ft., 10-v-10.

*Type*, unique, in Indian Museum.

**javanensis**, Alex., Proc. U.S. Nat. Mus. XLIX, 171, ♀, pl. xliii, 18, wing (1916).

Pelaboean Ratoe, Java, 19-x-09; [*Bryant and Palmer*].

*Type*, Cat. No. 19,019, in U.S. Nat. Mus.

### Teucholabis, Ost. Sack.

Proc. Acad. Nat. Sci. Philad., 222 (1859).

Ost. Sack., Monog. Dipt. N. Amer. IV, 129, pl. i, 12, wing, pl. iii, 9, forceps: *id.*, Berl. Ent. Zeits. XXVI, 188: *id.*, *loc. cit.*, XXXI, 188; Brun., Fauna Brit. Ind., 427.

GENOTYPE, *T. complexa* Ost. Sack., by original designation.



- exclusa** Walk., Proc. Linn. Soc. VIII, 105, ♀ (*Limnobia*) (1865).  
Papua. *Type* in British Museum, much damaged.
- bicolor** Ost. Sack., Ann. Mus. Gen. XVI, 404, ♂ (1880).  
de Meij., Tijd. v. Ent. LVI, 348.  
Sumatra, Sinabang, Simalur Is., off Sumatra, i, ii; Gunung Ungaren, Java, ix [*Jacobson*].  
*Type* in Genoa Museum in poor condition.
- fenestrata** Ost. Sack., Berl. Ent. Zeits. XXXI, 188 ♂ ♀ (1887).  
Brun., Rec. Ind. Mus. VI, 283; XV, 304: *id.*, Fauna Brit. Ind., 429, ♂ ♀  
Common and widely distributed in India, from April to October. Naini Tal, Darjiling, Kurseong, Lake Chilka, Madras, Peradeniya; Mazbat, Assam, Tura, Garo Hills.  
*Types* in the Leyden Museum and Bigot collection.
- determinata** Ost. Sack., Berl. Ent. Zeits. XXXI, 188, ♂ (1887).  
Brun., Rec. Ind. Mus. VI, 283.  
Sula (Indo-Malay Archipelago).  
*Type*, a unique ♂, in British Museum.
- insignis**, Brun., Fauna Brit. Ind., 430, ♂, pl. viii, 13, wing (1912).  
Tenmalai, Travancore, 22-xi-08 [*Annandale*].  
*Type*, a unique ♂, in Indian Museum.
- bi-annulata**, *id.*, *loc. cit.*, 430, ♂ (1912).  
Kurseong, 26-vi-10. [*Annandale*]; Rotung, 27-xii-11 and Damda, 3000 ft., both N.-E. Ind. Frontier [*Kemp*].  
*Type* in Indian Museum.
- plecioides** de Meij., Tijd. v. Ent. LVI, 348, ♀ (1913).  
Nongkodjadjar, Java, i; Sinabang, Simalur Is. off Sumatra, ii, vii [*Jacobson*]. *Type* in Amsterdam Museum.
- glabripes**, *id.*, *loc. cit.*, 349, ♂ (1913).  
Nongkodjadjar, Java, i [*Jacobson*].  
*Type*, a unique ♂, in Amsterdam Museum.
- femorata**, *id.*, *loc. cit.*, LVIII, 67, ♂ (1916).  
Fort de Kock, Simalur Island, Sumatra, x.  
The unique *type* in Amsterdam Museum.
- nigerrima** Edw., Ann. Mag. Nat. Hist. (8) XVIII, 248 (1916).  
Horisha, Formosa, 10-v-13 [*Maki*], Taihoku, Formosa [*Shiraki*]. *Type* in British Museum.
- angusticapitis** Brun., Rec. Ind. Mus. XV, 305, ♂, pl. viii, 11, head and thorax, 12, head in profile, 13, tip of proboscis (1918).  
Above Tura, Garo Hills, 3500—3900 ft., viii-17 [*Kemp*].  
Unique *type* in Indian Museum.
- ornata**, *id.*, *loc. cit.*, 305, ♂ (1918).  
Peradeniya, 11-viii-10. Unique *type* in Indian Museum.  
var. **assamensis**, *id.*, *loc. cit.*, 306, ♂ (1918).  
Shillong, 5500—6400 ft., 29-viii—5-ix-15 [*Kemp*].

**nocticolor** Edw., Jour. Fed. Malay Sts. Mus., viii, 18, ♂ ♀, pl. iii, fig. 6a, b, genitalia; pl. iv, 13, wing (1919).  
Siolak Daras, Sumatra, 3000 ft.

### Gymnastes, Brun.<sup>1</sup>

Rec. Ind. Mus. VI, 281 (1911).

*Id.*, *id.*, Fauna Brit. Ind., 432: Rec. Ind. Mus. XV, 307: Edw., Ann. Mag. Nat. Hist. (8) XVII, 359.

GENOTYPE, *Teucholabis cyanea* Edw., as *G. violaceus*, sp. nov.

**cyanea** Edw., Ann. Mag. Nat. Hist. (8) VIII, 61, ♂ ♀ (*Teucholabis*) (1911).

*Gymnastes violaceus*, Brun., Rec. Ind. Mus. VI, 282 (1911).

*id.*, Fauna Brit. Ind., 433, ♂, fig. 42 full ins. (1912).

Madulsima, Ceylon, 19-v-08, type ♂ [*Fletcher*]; Bentota, Ceylon, 13-vi-90, type ♀ [*Yerbury*]; Kandy, 22-v-10 (type of *violaceus*); Peradeniya, 15-vii-10 [*Gravelly*]; Cherambadi, Wynaad, S. India, x-13 [*Fletcher*]. Type ♂ ♀ *cyanea* in British Museum, of *violaceus* in Indian Museum.

**ornatipennis** de Meij., Tijd. v. Ent. LIV, 47, pl. iii, 34, wing (*Gnophomyia*) (1911).

*Gymnastes, id.*, Edw., Ann. Mag. Nat. Hist. (8) XVIII, 249.

*Paratropesa, id.*, Alex., Proc. U.S. Nat. Mus. XLIX, 167, pl. xliii, 14, wing.

Wonosobo, Java, iv, Telaga Mendjer, Java, v [both *Jacobson*]; Tjibodas, Mt. Gedé, Java, 4500 ft. [*Bryant and Palmer*]; Arisan, Formosa, 8000 ft., 10-x-12 [*Nitobe*]; Reidel also records it from Formosa.

Type in Amsterdam Museum, no sex stated.

Alexander refers this species to *Paratropesa*, Sch., I think wrongly.

**pictipennis** Edw., Ann. Mag. Nat. Hist. (8) xvii, 358, ♂, fig. 4, p. 356, genitalia (1916).

Bukit Besar, Malay Penin. [*Robinson and Annandale*].

Type in British Museum.

**bistriatipennis** Brun., Rec. Ind. Mus. XV, 307, ♂ (1918).

Talewadi, N. Kanara Dist., 3—10-x-16 [*Kemp*].

Type in Indian Museum; *cotypes* in my collection.

**pennipes**, *id.*, *loc. cit.*, 308, pl. viii, 10, hind leg (1918).

Above Tura, Garo Hills, 3500—3900, vii-17 [*Kemp*].

Unique type in Indian Museum.

<sup>1</sup> Alexander regards this genus as synonymous with *Teucholabis*, but I still think it distinct (Rec. Ind. Mus. XV, 307) and Edwards supports its retention (Ann. Mag. Nat. Hist. (8) xvii, 358).

**Atarba, Ost. Sack.**

Monog. Dipt. N. Amer. IV, 127, pl. i, 13, wing (1869).

Brun., Fauna Brit. Ind., 434.

GENOTYPE, *A. picticornis*, *id.*, sp. nov., *loc. cit.*

*Leiponeura*, Skuse, Proc. Linn. Soc. N. S. Wales (2) IV, 795 (1890).

GENOTYPE, *L. gracilis*, sp. nov., *loc. cit.*, the 1st species by present designation.

**nebulosa** de Meij., Tijds. v. Ent. LIV, 42, ♂, pl. ii, 25, wing (1911).<sup>1</sup>

Batavia, viii [Jacobson]. Type in Amsterdam Museum.

**pilifera**, *id.*, *loc. cit.*, 43, ♂ ♀, pl. ii, 26, wing (1911).

Semarang, vi, vii [Jacobson]. Types in Amsterdam Museum.

**diffusa**, *id.*, *loc. cit.*, 43, ♀ (1911).

Semarang, i, xi [Jacobson]. Type in Amsterdam Museum.

**flava** Brun., Fauna Brit. Ind., 435, ♂ ♀, pl. viii, 15, wing (1912).

Darjiling, apparently common in autumn, 28-v-10, type ♂; 26-v-20, type ♀, 22-ix-08, 1-x-08 [all Brunetti]; 9-viii-09 [Paiva]. Types in Indian Museum.

**pallidicornis** Edw., Ann. Mag. Nat. Hist. (8) XVIII, 249, ♀ (1916).

Arisan, Formosa, 8000 ft., 10-x-12 [Nitobe].

Unique type in British Museum.

**fuscicornis** Edw., *loc. cit.*, 250, ♀ (1916).

Arisan, Formosa, 8000 ft., 10-x-12 [Nitobe].

Unique type in British Museum.

**javanica** Alex., Proc. U.S. Nat. Mus. XLIX, 171, ♀, pl. xliii, 19, wing (1916).

Tjibodas, Mt. Gedé, Java, 8000 ft. [Bryant and Palmer].

Type, Cat. No. 19,020, U.S. Nat. Mus.

**Section ERIOPTERINI.<sup>2</sup>**

Eriopterina, Ost. Sack., Eriopterinae, Kert.

**Rhypholophus, Kol.**

Wien. Ent. Monats. IV, 393 (1860).

Ost. Sack., Monog. Dipt. N. Amer. IV 139, pl. i,

14, 15, wings: *id.*, Berl. Ent. Zeits. XXXI, 192:

Sch., F. Austr. II, 536: Brun., Fauna Brit. Ind.,

440, pl. xi, 20, antenna.

<sup>1</sup> Alexander regards *Leiponeura* as valid and places therein *nebulosa*, *pilifera* and *diffusa*. He thinks my *flava* the only oriental species of the genus *Atarba* except his own *javanica*.

<sup>2</sup> For characters and table of genera *v.* Brun., Fauna Brit. Ind. 436 *et seq.*, and Ost. Sack., Monog. Dipt. N. Amer. IV, 135.

GENOTYPE, *Rhypholophus phryganopterus* Kol.,  
the original species.

*Ilisomyia*, Rond., Dipt. Ital. Prod. I, 180 (*Ilisomyia*) (1896).

GENOTYPE, *I nubipennis*, sp. nov., *loc. cit.*

*Ormosia*, *id.*, *loc. cit.*, 180 (1856).

GENOTYPE, *Erioptera nodulosa* Macq., by original designation.

*Dasyptera*, Sch., Wien. Ent. Monats. VII, 221 (1863).

GENOTYPE, *Erioptera varia* Mg., by original designation.

*Erioptera*, Sch., *nec* Mg.

**geniculatus** Brun., Fauna Brit. Ind., 441, ♂ (1912).

Kurseong, 16-iv-11 [*Annandale*].

Type in Indian Museum.

**pulcher**, *id.*, *loc. cit.*, 442, ♀, pl. viii, 16, wing (1912).

Phagu, Simla Distr., 9000 ft., 11-v-09 [*Annandale*]; Naini Tal, 6400 ft., Kumaon Distr., x-1906 [*Annandale*].

Type in Indian Museum.

### **Molophilus**, Curt.

Brit. Entom. 444 (1833).

Ost. Sack., Monog. Dipt. N. Amer. IV, 243, pl. i, 16—19, wings, pl. iv, 14—16, forceps: *id.*, Berl. Ent. Zeits. XXXI, 192: Brun., Fauna Brit. Ind., 443

*Erioptera* Sch. (*nec* Meig.), Wien. Ent. Monats. VII, 221 (1863): *id.*, *id.*, F. Austr. II, 541.

GENOTYPE, *Erioptera atra* Mg., as *brevipennis* Curt., sp. nov.

**bicolor** de Meij., Tijd. v. Ent. LIV, 45, pl. iii, 27, wing (1911).

Wonosobo, Java, v [*Jacobson*].

Unique type in Amsterdam Museum.

**inconspicuus** Brun., Fauna Brit. Ind., 444, ♂ ♀ (1912).

Simla, 12-v-08; Ghumti, 4000 ft. [*Gravelly*]; Kurseong, 4—6-vii-08; 18—20-vi-10, type ♂ [all *Annandale*]; Maddathorai, 16-xi-08, type ♀; Tenmalai, 22-xi-08 [both Travancore and *Annandale*]. Types in Indian Museum.

**assamensis**, *id.*, *loc. cit.*, 445, ♂ (1912).

Sylhet, 8-i-06 [*Hall*]. Unique type in Indian Museum.

**costalis** Edw., Ann. Mag. Nat. Hist. (8) XVIII, 251 (1916).

Arisan, Formosa, 8000 ft., 10-x-12 [*Nitobe*].

Type in British Museum.

**sirius** Alex., Can. Ent. XLVII, 82, ♂ ♀, fig. 1, wing (1915).

Philippine Islands, July.

**Erioptera, Mg.**

Illig. Mag. II, 262 (1803).

Sch., F. Austr. II, 541: Ost. Sack., Monog. Dipt. N. Amer. IV, 146, pl. i, 16—19, wings; iv, 14—16, forceps: *id.*, Berl. Ent. Zeits. XXXI, 193: *Auctt. var.*

Brun., Fauna Brit. Ind., 445: *id.*, Rec. Ind. Mus. XV, 309, notes and synonyms.

GENOTYPE, *Erioptera lutea* Mg., by Coquillett's designation (1910).

*Chemalida* Rond., Dipt. Ital. Prod. I, 180 (1856).

GENOTYPE, *Erioptera taenionota* Mg., by original designation.

*Limnaea, id., loc., cit.*, 181.

GENOTYPE, *Tipula flavescens* L., by original designation.

*Limnoica, id., loc. cit.* IV, p. 11, Corrigenda (1861), nom. nov. for *Limnaea*, preocc. Poli, 1791.

? *Octavia* Big, Ann. Soc. Ent. Fran. (3) II, 475 (1854).

**javanensis** de Meij., Tijd. v. Ent. LIV, 45, ♂; pl. iii, 28, wing (1911).

Wonosobo, Java, iv [*Jacobson*]; Pelaboean Ratoe, Java, 16-x-09; Buitenzorg, iii, 09 [*Bryant and Palmer*].

Type in Amsterdam Museum.

**notata, id., loc. cit.**, 46, ♂ ♀, pl. iii, 29, wing, 30, ♀ genitalia, 31, ♂ genitalia (1911).

Semarang ii [*Jacobson*]; Sinabang, Simalur Is., off W Coast Sumatra, v, vi. Types in Amsterdam Museum in alcohol.

**punctipennis** Brun., Fauna Brit. Ind., 449, ♀, pl. viii, 17, wing (1912).

Kurseong, 26—27-vi-10 [*Annandale*]; Tura, Garo Hills, vii, viii, 17 [*Kemp*]. Type in Indian Museum.

**ferruginea, id., loc. cit.**, 450, ♂ (1912).

Pallode, Travancore, 15-xi-08 [*Annandale*]. Type in Indian Museum.

**distantis, id., loc. cit.**, 451, ♂ (1912).

Kurseong, 26-vi-10 [*Annandale*]. Type in Indian Museum.

**incerta, id., loc. cit.**, 452, ♂ (1912).

Darjiling, 5-viii-09 [*Paiva*]. Type, a unique ♂, in Indian Museum.

**parallela, id., loc. cit.**, 453, ♀ (1912).

Kurseong, vi-1910. Type in Indian Museum, a unique ♀, the abdomen now missing.

**orientalis, id., loc. cit.**, 453, ♂ ♀ (1912).

Darjiling, 5-viii-09, type ♂ [*Paiva*]; type ♀ [*Annandale*];

Kurseong, 4—9-ix-09: [*Annandale*]; Calcutta [*Annandale*]; Shanghai, 8-v-06 [*Brunetti*]. *Types* in Indian Museum.

**subtinctoria**, *id.*, *loc. cit.*, 455, ♂ ♀ (1912).

Darjiling, 5-viii-09 [*Paiva*].

*Types*, a unique pair, in Indian Museum.

**flava**, *id.*, *loc. cit.*, 455, ♂ ♀ (1912).

*halterata*, *id.*, *loc. cit.*, 457 ♂ ♀ (1912).

Darjiling [*Brunetti* and *Paiva*]; 6000—7000 ft., 11 and 13-vi-14 [*Gravely*], 20-ix-08 at light, *type* ♂, *halterata* [*Brunetti*]; 6—11-viii-09, *type* ♀, *halterata* [*Paiva*]; Madhupur, Bengal, 17-x-09 at light, *type* ♂, *flava* [*Paiva*]; Calcutta, 12-ix-07, *type* ♀, *flava* [*Annandale*], near Khulna, Ganges Delta, on board launch, at light, 28-viii-09 [*Jenkins*], Medha, Yenna Valley, Satara Distr., 2200 ft., 17—23-iv-12 [*Gravely*], Shilong, 5500—6400 ft., 29-viii—5-ix-15 [*Kemp*].

*Types* of *flava* ♂ ♀ and *halterata* ♂ ♀ in Indian Museum.

**grandior**, *id.*, *loc. cit.*, 456, ♀, pl. viii, 18, wing (1912).

Simla, 10-v-09 [*Annandale*]. *Type* in Indian Museum, unique.

**genitalis**, *id.*, *loc. cit.*, 456, ♂ ♀ (1912),

Bhowali, Kumaon Div., 27-vi-10, *type* ♂, at light; 12-vi-10, *type* ♀ *Types* in Indian Museum.

**fusca** de Meij., Tijds. v. Ent. LVI, 351, pl. xvii, 17, wing (1913).

Nongkojadjar, Java [*Jacobson*]. *Type*, unique, in Amsterdam Museum.

**nigripalpis**, *id.*, *loc. cit.*, 351, ♂ (♀ lapsus), pl. xvii, 18, ♂ genitalia (1913).

Nongkodjadjar, Java, 1 [*Jacobson*].

*Type*, unique, in Amsterdam Museum.

**insignis** Edw., Ann. Mag. Nat. Hist. (8) XVIII, 251, ♂ ♀, (*Erioptera*, sub-gen.) (1916).

Arisan, Formosa, 8000 ft., 10-x-12 [*Nitobe*]; Tokyo.

*Types* in British Museum.

**albogutatta** Edw., *loc. cit.*, p. 252, ♂, pl. xii, 4, genitalia (*Erioptera*, sub-gen.) (1916).

Arisan, Formosa, 8000 ft., 10-x-12 [*Nitobe*].

Unique *type* in British Museum.

**subfusca** Edw., Jour. Fed. Malay Sts. Mus., VIII, 19, ♂, pl. iii, 7, genitalia (1919).

Korinchi Peak, Sumatra. *Type* in British Museum.

### **Acyphona**, Ost. Sack.

Monog. Dipt. N. Amer. IV, 151 (1869).

GENOTYPE, *Erioptera venusta*, Ost. Sack., by present designation, no species having apparently been nominated.

*Trichosticha*, Sch., Wein. Ent. Monats. VII, 221  
(1863).<sup>1</sup>

*Ilisia*, Rond., Dipt. Ital. Prod. I, 182 (1856).<sup>2</sup>

**fenestrata** de Meij., Tijd. v. Ent. LVI, 352, ♀, pl. xvii, 19, wing  
(1913).

Nongkodjadar, Java, i [Jacobson]; Tjibodas, Mt. Gedé,  
Java, 8000 ft. [Bryant and Palmer].

Type in Amsterdam Museum.

Apparently no genotype of *Acyphona* has hitherto been selected.

### Mesocyphona, Ost. Sack.

Monog. Dipt. N. Amer. IV, 152 (1869).

Ost. Sack., Berl. Ent. Zeits. XXXI, 194:  
Brun., Fauna Brit. Ind., 458.

GENOTYPE, *Erioptera caloptera* Say., by my own  
designation, Fauna, 458.

**nigripes** Brun., Fauna Brit. Ind., 458, ♂, pl. ix, 1, wing (1912).

Kurseong, 7—9-ix-09 [Annandale]; Ghoom, 7500 ft., 19-ix-08,  
Pashok, 2000 ft. [Gravely]; Kalimpong, 600—4500 ft., 24-iv—  
10-v-15 [Gravely]. Type in Indian Museum.

**gracilis** Brun., Rec. Ind. Mus. XV, 310, ♀ (1918).

Bhoirakund, Assam-Bhutan Frontier, Darrang Distr., 18—  
22-x-12 [Kemp]. Unique type in Indian Museum.

### Empeda, Ost. Sack.

Monog. Dipt. N. Amer. IV, 183 (1869).

Ost. Sack., Berl. Ent. Zeits. XXXI, 203:  
Brun., Fauna Brit. Ind., 475.

GENOTYPE, *E. stigmatica* Ost. Sack., by original  
designation.

*Ilisophila*, Rond., Dipt. Ital. Prod. I, 180 (1856).

GENOTYPE, *Erioptera lutea* Mg., by original  
designation.

**gracilis** de Meij., Tijd. v. Ent. LIV, 49 ♀; pl. iv, 37, wing  
(1911).

*Id.*, loc. cit., LVI, 353, pl. xvii, 20, ♂ genitalia.

Tosari, Java [Kobus]; Nungkodjadar, Java, i [Jacobson].

Type in Amsterdam Museum.

**brevior** Brun., Fauna Brit. Ind., 452, ♂ ♀, pl. ix, 2, wing (*Eriop-*  
*ptera*) (1912).

*Empeda inconspicua*, *id.*, loc. cit., 475, ♂ ♀; pl. ix, 10, wing.

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<sup>1, 2</sup> No genotype appears to have been erected for *Trichosticha*, and of the three species placed in it by Schiner at its creation only one, *maculata* Mg., is now referred to it, and this one was selected by Rondani as type of *Ilisia*.

Darjiling, 5 and 11-viii-09, *type* ♂ and ♀ [*Paiva*]; 25—29-v-10 [*Brunetti*]; 3—9-vi-09 [*Howlett*]; Kurseong, 22—26-vi-10; 7-ix-09 [*Annandale*]. *Types* of both sexes of *brevior* and *inconspicua* in Indian Museum.

*antica* Brun., Fauna Brit. Ind., 568, ♂ (*Gonomyia*) (1912).

Ghumti, 4000 ft. *Type* in Indian Museum.

*femoralis* Edw., Jour. Fed. Malay Sts. Mus., viii, 20, ♀ (1919).

Korinchi Peak, Sumatra. *Type* in British Museum.

### Gonomyia, Mg.

Syst. Besch I, 146 (1818).

Sch., F. Austr. II, 542: Ost. Sack., Mong. Dipt. N. Amer. IV, 177—179: *id.*, Berl. Ent. Zeits. XXXI, 200 (incl. correction of Monog. ref.): Brun., Fauna Brit. Ind., 468: *id.*, Rec. Ind. Mus. XV, 311, notes.

GENOTYPE, *Limnobia tenella* Mg. (t. Coquillett, 1910).

*Taphrosia*, Rond., Dipt. Ital. Prod. I, 182 (1856).

GENOTYPE, *Limnobia tenella* Mg., by original designation.

*Goniomyia*, Ost. Sack., Monog. Dipt. N. Amer. IV, 177 (1869).<sup>1</sup>

*metatarsata* de Meij., Tijd. v. Ent. LIV, 48, ♀, pl. iii, 35, wing (1911).

Semarang, i, vii [*Jacobson*]; Pasaruan, Java [*Kobus*].

*Type* in Amsterdam Museum.

*nubeculosa*, *id.*, *loc. cit.*, 48, ♂, pl. iii, 36, wing (1911).

Wonosobo, Java, iv [*Jacobson*].

*Type*, a unique ♂, in Amsterdam Museum.

*incompleta* Brun., Fauna Brit. Ind., 471, ♂ ♀, pl. ix-5, wing; pl. xi-19, ♂ genitalia (1912).

Kurseong, 3-vii-08 [*Annandale*]; Sukna, 1-vii-08 [*Annandale*]; Ghumti, Darjiling, 4000 ft., vii-11 [*Gravelly*]; Calcutta, 26-vii-08, *type* ♂, 21-viii-09 *type* ♀ [both *Annandale*]; 16-viii-12 in house [*Gravelly*]; Katihar, viii-ix-10 [*Paiva*]; Bhogaon, 9-x-08 [*Paiva*], Kushtea, Bengal, 7—8-x-09 [*Jenkins*]; Talewadi, N. Kanara Dist. [*Kemp*]. *Types* in Indian Museum, *cotypes* in my collection.

*flavomarginata*, *id.*, *loc. cit.*, 472, ♂ ♀, pl. ix, 6 (1912).

Simla, 7000 ft. [*Annandale*]; Kurseong, 20-vi-10, *type* ♂; 18 and 22-vi-10; 6-ix-09, *type* ♀; 20-vi-10 [all *Annandale*]; Darjiling, 7-viii-09 [*Jenkins*]; 7000 ft. [*Paiva*]; Almora, Kumaon Div., 5500 ft., 13—16-ix-11 [*Paiva*].

*Types* in Indian Museum.

<sup>1</sup> *Goniomyia* is merely a different spelling of the name *Gonomyia*.



**affinis**, *id.*, *loc. cit.*, 472, ♂ ♀, pl. ix, 7, wing (1912).

Kumaon, 4700 ft. and 5000 ft. [*Annandale*]; Kurseong, 13—16-vii-07, *type* ♂; 25—28-iii-10; 5—7-vii-08; 22-vi-10 [all *Annandale*]; Darjiling, 5-viii-09 *type* ♀; 9-viii-09 [*Jenkins*]; Castle Rock and Talewadi, N. Kanara Dist. [*Kemp*].

*Types* in Indian Museum.

**aperta**, *id.*, *loc. cit.*, 473, ♂, pl. ix, 8, wing (1912).

Katihar, Bengal, 29—31-xii-09 [*Paiva*].

*Type* in Indian Museum, a unique specimen.

**proxima**, *id.*, *loc. cit.*, 474, ♂ ♀, pl. ix, 9, wing (1912).

Tirvani, 27-xii-09; Noalpur, 15-ii-08 (both base of Nepalese Himalayas); Rajmahal, Bengal, 14-ii-10, *type* ♂ ♀ *in cop.* [*Chaudhuri*]; Rajshahi, E. Bengal, 1—6-ii-07 [*Annandale*]; Pusa river bank, 6-i-11 [*Fletcher*]; 19-iv-09.

*Types* in Indian Museum, *cotype* ♀ in Pusa coll.

**bryanti** Alex., Proc. U.S. Nat. Mus. XLIX, 173, ♂, pl. xlv, 20, wing; pl. xlvii, 48, 49, genitalia (1916).

Tjibodas, Mt. Gedé, Java, 8000 ft. [*Bryant and Palmer*].

*Type*, Cat. No. 19,021, U.S. Nat. Mus.

**nebulosa** Edw., Ann. Mag. Nat. Hist. (8) XVIII, 252 (*Lipophleps*) (1916).

Arisan, Formosa, 8000 ft., 10-x-12 [*Nitobe*].

*Type* in British Museum.

### Mongoma, Westw.

Trans. Ent. Soc. Lond. 364, pl. xvii, 1 (1881).

Ost. Sack., Berl. Ent. Zeits. XXVI, 90; XXXI, 203; Brun., Rec. Ind. Mus. VI, 290, 292 (*Mongoma* group): *id.*, Fauna Brit. Ind., 476: *id.*, Rec. Ind. Mus. XV, 311, notes, tab. allied gen. and Ind. spp.

GENOTYPE, *M. fragillima* Westw., by original designation.

**tenera** Ost. Sack., Berl. Ent. Zeits. XXVI, 89, ♂ (1882).

Brun., Rec. Ind. Mus. VI, 295: *id.*, Fauna Brit. Ind., 480, ♂ ♀

*pallidiventris*, Brun., Fauna Brit. Ind., 481, ♀ (1912).

Kurseong, 4700—5000 ft. [*Annandale*]; Ghumti, 4000 ft. [*Gravelly*]; Sukna, 1-vii-08; 1-viii-08; Nedumangad, Travancore, 14-xi-09; Pallode, 15-xi-08, *type* of *pallidiventris* [both *Annandale*]; Tura, Garo Hills, vii, viii-17 [*Kemp*]; Ginting Bidai, Selangor-Pahang Frontier, Federated Malay States, 2000 ft., iv-17 [*Boden Kloss*]; Philippines.

**pennipes** Ost. Sack., Berl. Ent. Zeits. XXXI, 204, ♂ (1887).

de Meij., Tijds. v. Ent. LIV, 50, pl. iv, 38—41, var. chars.:

Brun., Rec. Ind. Mus. VI, 295: *id.*, Fauna Brit. Ind., 479,

♂ ♀, pl. ix, 14, wing; pl. xi, 13, ♂ genitalia.

Sukna, N. Bengal, 1-vii-08; Calcutta, not uncommon, Feb. to Sept.; Pusa, at light, 6-vii-13 [*Howlett*]; in plantain bark, 27-xi-12; Kavalai, Cochin, 1300—3000 ft., 24—27-ix-14 [*Gravelly*]; Peradeniya, 12—16-vii-10 [*Green*]; 16-ix-09 at light; Insein, Lower Burma, 31-vii—4-viii-14 [*Fletcher*]; Sêmarang, 1, x [*Jacobson*]; Tumbong Hiong, Borneo.

**cariniceps** Ender., Zool. Jahr. XXXII, 60, ♂, fig. L<sup>1</sup>, wing (1912).

Soekaranda, Sumatra, Mt. Salak, Java, 15-v-09, ♂ ♀ [*Bryant and Palmer*]; Siolak Daras, Korinchi Peak, Sumatra, 3000 ft., iii-14. *Type* in Stettin Zoological Museum.

**obscura** de Meij., Bijdr. tot de Dierk. XIX, 48, ♂, pl. i, 5, wing (1913).

Waigon, 1-i-10. *Unique type* in Amsterdam Museum.

**albipennis** de Meij., Tijd. v. Ent. LVI, 353, ♀ (1913).

Nungkodjadjar, Java, 1 [*Jacobson*].

*Unique type* in Amsterdam Museum.

**splendida** Brun., Rec. Ind. Mus. XV, 313, ♂ ♀ (1918).

Above Tura, Garo Hills, 3500—3900 ft., vii, viii-17 [*Kemp*].

*Types* in Indian Museum.

**kempi**, *id.*, *loc. cit.*, 313, ♀ (1918).

Above Tura, Garo Hills, 3500—3900 ft., viii-17 [*Kemp*].

*Type* in Indian Museum.

**flava**, *id.*, *loc. cit.*, 314, ♀ (1918).

A unique ♀ taken in company with the above species.

*Type* in Indian Museum.

### **Plesiomongoma**, Brun.

Rec. Ind. Mus. XV, 314 (1918).

GENOTYPE, *P. venosa*, *id.*, sp. nov., *loc. cit.*

**venosa** Brun., *loc. cit.*, 314, ♀ (1918).

Shillong, 5500—6400 ft., 29-viii—5-ix-15 [*Kemp*].

*Unique type* in Indian Museum.

### **Trentepohlia**, Big.

Ann. Soc. Ent. Fran. (3) II, 473 (1854).

Brun., Rec. Ind. Mus. XV, 315: Edw., Ann.

Mag. Nat. Hist. (8) VIII, 63 (1911).

*Mongomioides*, Brun., Rec. Ind. Mus. VI, 296 (1911).

*Id.*, Fauna Brit. Ind., 481.

GENOTYPE, *Limnobia trentepohlîi* Wied., by original designation; the *type* species of *Mongomioides* is the same.<sup>1</sup>

<sup>1</sup> Though Bigot's description is quite valueless, Edwards recently noted (*vide ante*) one of the true generic characters (three posterior cells only), but I had overlooked his paper. Still, the nomination of a type species does not constitute the diagnosis of a genus.

**trentepohlii** Wied., Auss. Zweifl. I, 551, ♂, pl. vi, b, fig. 12 (*Limnobia*) (1828).

Macq., Hist. Nat. Dipt. I, 100 (*Limnophila*): Ost. Sack., Berl. Ent. Zeits. XXVI, 90: de Meij., Tijd. v. Ent. LIV, 51, notes, pl. iv, 42, wing; Brun., Rec. Ind. Mus. VI, 297: *id.*, Fauna Brit. Ind., 482, ♂ ♀, pl. ix, 13, wing.

Widely distributed throughout India, especially in the plains, Ceylon, Burma, Assam, Siam, Java and Sumatra. It extends northward at least to Sylhet [*Hall*]. The recorded months of appearance are February, and from August to November.

*Type* in Dr. Trentepohl's collection.

**marmorata** Brun., Fauna Brit. Ind. 483, ♀, pl. ix, 11, wing (*Mongomioides*) (1912).

Calcutta, 28-xi-07. Unique *type* in Indian Museum.

**nigroapicalis**, *id.*, *loc. cit.*, 483, ♂, pl. ix, 12, wing (*Mongomioides*) (1912).

Lucknow, 5-iii-11, *type*; Pusa, 20-iv-13, on pipal [*Howlett*]; 1-iv-16 [*Fletcher*]; Rajmahal, Bihar [*Chaudhuri*]; Sorabkalti, Ganges Delta [*Jenkins*]; Peradeniya, v-09; Tura, Garo Hills, Assam, vii-17 [*Kemp*]. *Type* in Indian Museum.

**albogeniculata**, *id.*, *loc. cit.*, App. 569, ♂ (*Mongomioides*) (1912).

Brun., Rec. Ind. Mus. VII, 448 (1912).<sup>1</sup>

Dawna Hills ("3rd Camp to Misty Hollow"), 400—2400 ft., 22—30-xi-11 [*Gravelly*]. *Types* in Indian Museum.

**speiseri** Edw., Ann. Mag. Nat. Hist. (8) XII, 204, ♂ ♀, *nom. nov.*, fig. (1913).

*Mongoma exornata* Speiser (*nec* Bergr.), Berl. Ent. Zeits. LII, 135 (1907).

Peradeniya, II, 1912. Described from W Coast of Africa.

*Type* in British Museum.

**ornatipennis** Brun., Rec. Ind. Mus. XV, 315, ♂, fig. 4, wing (*ornatepennis*, *lapsus*) (1918).

Castle Rock. N. Kanara Dist., 11—26-x-16 [*Kemp*].

Unique *type* in Indian Museum.

**saucia** Alex., Proc. U.S. Nat. Mus., XLIX, 174, ♀, pl. xlv, 21, wing (1916).

Tjibodas, Mt. Gedé, Java, 7800 ft. [*Bryant* and *Palmer*].

*Type*, Cat. No. 19,022, U.S. Nat. Museum.

**pictipennis** Bezzi, Phil. Jour. Sci. XII, Sect. D. 115, ♂ (1917).

Luzon [*Baker*].

#### Paramongoma, Brun.

Rec. Ind. Mus. VI, 295 (1911).

Brun., Fauna Brit. Ind., 484: *id.*, Rec. Ind.

Mus. XV, 314.

<sup>1</sup> The Fauna reference antedates the other by about a month.

GENOTYPE, *Cylindrotoma albitarsis* Dol., by original designation.

*Mongomella*, Ender., Zool. Jahr. XXXII, 61 (1912).

GENOTYPE, *Mongoma pallida* Will., by original designation.

*albitarsis* Dol., Nat. Tijd. Ned. Ind. XIV, 391, pl. iv, 1, full ins. (*Cylindrotoma*) (1857).

Ost. Sack., Berl. Ent. Zeits. XXVI, 90: Brun., Rec. Ind. Mus. VI, 295, notes: *id.*, Fauna Brit. Ind., 484.

Java, Amboina. Location of *type* unknown, probably lost.

### **Anchimongoma, Brun.**

Rec. Ind. Mus. XV, 316 (1918).

GENOTYPE, *A. simplex*, sp. nov., *loc. cit.*

*simplex* Brun., *loc. cit.*, 316, ♂ ♀, fig. 5, wing (1918).

Castle Rock, N. Kanara Dist., 11—26-x-16 [*Kemp*].

The unique *types* in the Indian Museum.

### **Lechria, Skuse.**

Proc. Linn. Soc. N.S. Wales (2) IV, 830 (1890).

Brun., Fauna Brit. Ind., 465.

GENOTYPE, *L. singularis* Skuse, by original designation.

*lucida* de Meij., Tijd. v. Ent. LIV, 53, ♀, pl. iv, 45, wing (1911).

Batavia, vi [*Jacobson*].

*Type*, unique, in Amsterdam Museum.

*bengalensis* Brun., Rec. Ind. Mus. VI, 301, ♂ ♀ (1911).

*Id.*, Fauna Brit. Ind., 467, ♂ ♀, pl. ix, 4, wing: *id.*, Rec. Ind. Mus. XV, 317.

Pusa, 15-viii-08, *type* ♂; 16-vii-10; 24-viii-11 [*Howlett*]; Calcutta, 19-viii-07, *type* ♀; 18-vi-09; Bangalore, 12-x-10 [*Annan-dale*]; Talewadi, N. Kanara Dist. [*Kemp*]; 30-v-12 [*Gravelly*]. *Type* ♂ in Pusa collection, *type* ♀ in Indian Museum.

*nepalensis* Brun., Rec. Ind. Mus. XV, 317, ♀ (1918).

Katmandu, Nepal. The unique *type* in the Indian Museum.

*leucopeza* de Meij., Tijd. v. Ent. LVI, Supp., p. 3, ♀ (1914).

Semarang, viii [*Jacobson*].

Unique *type* in Amsterdam Museum.

### **Styngomyia, Lw.<sup>1</sup>**

Dipt. Beitr., I in "Zu der öffentlichen Prüfung der Schüler d. Königl. Fried. Wilh. Gymn. zu Posen," p. 6 (1845).

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<sup>1</sup> Placed in error in Rhabdini in my second paper on Tipulidae. It belongs near *Lechria*.

Edw., Trans. Ent. Soc. Lond., 208 (1914)<sup>1</sup>:  
Brun., Rec. Ind. Mus. VI, 297; XV, 304:  
Fauna Brit. Ind., 459.

GENOTYPE, *S. venusta* Lw., a fossil species, by  
original designation.

*Pycnocrepis*, Ender., Zool. Jahr. XXXII, 65 (1912).

GENOTYPE, *Styringomyia crassicosta* Speis., as  
*P. annulipes*, *id.*, sp. nov., *loc. cit.*

**crassicosta** Speis., Berl. Ent. Zeits. LII, 132 (*Idiophloeoba*) (1907).

*ceylonica* Edwards, Ann. Mag. Nat. Hist. (8) VIII, 62, ♀ (July  
1911): Brun., Rec. Ind. Mus. VI, 298, ♂ ♀ (erroneous redescription  
from series containing more than one species): Brun.,  
Fauna Brit. Ind., 461 (same redescription copied).

*didyma* Grims., de Meij., Tijd. v. Ent. LIV, 40 (pt).

*Pycnocrepis annulipes* Ender., Zool. Jahr. XXXII, 65, ♂, fig.  
O<sup>1</sup>, wing (1912).

Tarnab, Peshawar Distr. [*Fletcher*]; Bhogaon, N. Bengal  
[*Paiva*]; Puri, Orissa, 10-xi-10 [*Annandale*]; Kankondigee,  
Sunderbunds, Ganges Delta, 14-xi-09, at light on board launch  
[*Jenkins*]; Calcutta; Weligama, Ceylon, 9-ii-08 [*Fletcher*];  
Taiping [*Wray Junr.*]; Pasuran, Java [*Kobus*]; Tainan, Formosa  
[*Sauter*]; Formosa ♂ ♀ (t. Ender.); Singgora, Siam [*Annandale*].  
*Type* in British Museum.

The above localities are mainly from Mr. Edwards' corrected  
list in the Trans. Ent. Soc.

**obscura** Brun., Rec. Ind. Mus. VI, 300 ♀ (erroneously given as  
♂ (1911))

*Id.*, Fauna Brit. Ind., 463, ♂ (as ♀).

Thaumaspur, Nepal, 18—20-ii-08.

*Type* in Indian Museum.

**flava** Brun., Rec. Ind. Mus. VI, 301, ♂ (1911).

*Id.*, Fauna Brit. Ind., 464, ♂

Tenmalai, Travancore, 22-xi-08, a unique ♂, "at light"  
[*Annandale*]. *Type* in Indian Museum.

**nigrofemorata** Edw., Trans. Ent. Soc., p. 215, ♀, pl. xxiii, 51 (1914).

Taiping, Malay States [*Wray Junr.*].

Unique *type* in British Museum.

**formosana**, *id.*, *loc. cit.*, 219, ♂ ♀, pl. xix, 9; xxi, 30, 31; xxv,  
70, 71, 72 (1914).

Tainan, Formosa; Koshun, Formosa [*Sauter*].

*Type* in the Deuts. Ent. Museum, Berlin; *paratypes* in British  
Museum.

**javana**, *id.*, *loc. cit.*, 220, ♂, pl. xix, 8; xxii, 32, 33 (1914).

Nongkodjadar, i, Java [*Jacobson*].

*Type* in Amsterdam Museum, a unique specimen.

<sup>1</sup> This paper by Edwards reviews all the known species, and includes a revised  
generic description and table. The figures, of which there are many, are mainly  
of genitalia. He corrects one or two errors of mine in the genus.

*jacobsoni*, *id.*, *loc. cit.*, 220, ♂ ♀ ; pl. xix, 6, thorax, 7 ; pl. xxii, 34, 35 ; xxv, 73 (1914).

*didyma* Grims., de Meij., Tijd. v. Ent. LIV, 40 (pt.).

Semarang, i ; Batavia, ii [*Jacobson*] ; Sukabumi (Pare), xii [*Dammermann*]. *Type* in Amsterdam Museum.

*fryeri*, *id.*, *loc. cit.*, 221, ♂ ♀ , pl. xxii, 36, 37 ; xxv, 74, 75 (1914).

Peradeniya [*Fryer*]. *Type* in British Museum.

*himalayana*, *id.*, *loc. cit.*, 221, ♂ ♀ , pl. xxii, 40 ; xxiii, 41 ; xxv, 77 (1914).

Sukna, ♂ ♀ *in cop.* [*Annandale*]. *Type* in Indian Museum.

*nepalensis*, *id.*, *loc. cit.*, 222, ♂ ♀ , pl. xxiii, 42, 43 ; xxv, 78, 79 (1914).

Sukhwani, Nepal. *Type* in Indian Museum.

### Gnophomyia, Ost. Sack

Proc. Acad. Nat. Sci. Philad. 223 (1859).

Ost. Sack., Monog. Dipt. N. Amer. IV, 172 ;

pl. ii, 5, wing ; iv, 19, 19a, genitals, ♂ ♀ : Sch.,

F. Austr. II, 535 : Ost. Sack., Berl. Ent. Zeits.

XXXI, 198 : Brun., Fauna Brit. Ind., 487.

*Id.*, Rec. Ind. Mus. XV, 318, notes on synonymy.

GENOTYPE, *G. tristissima* Ost. Sack., by Coquillett's designation.

*Furina*, Jaen., Abh. Senck. Ges. VI, 318 (1867).

GENOTYPE, *Limnobia rufithorax* W., by original designation.

*orientalis* de Meij., Tijd. v. Ent. LIV, 46, ♂ ♀ ; pl. iii, 32, wing, 33, ♂ genitalia (1911).

Batavia, vi ; Bekasssi, Java, viii [*Jacobson*] ; Arisan, Formosa, 8000 ft., 10-x-12 [*Nitobe*]. *Types* in Amsterdam Museum.

*strenua* Brun., Fauna Brit. Ind., 492, ♀ , pl. ix, 19, wing (1912).

Kurseong, 5-ix-09 [*Annandale*].

*Type* in Indian Museum, a unique specimen.

*nigra*, *id.*, *loc. cit.*, 493, ♂ , pl. x, 2, wing (1912).

Kumaon [Forest Zoology colln.] ; Bhim Tal, 4500 ft. [*Annandale*] ; Kurseong, 7-ix-09 [*Annandale*] ; Nilgiri Hills, 3500 ft. [*Andrewes*]. *Type* in Indian Museum.

### Dasymallomyia, Brun.<sup>1</sup>

Rec. Ind. Mus. VI, 304 (1911).

Brun., Rec. Ind. Mus. XV, 318.

GENOTYPE, *D. signata* Brun., sp. nov.

<sup>1</sup> The synonymy of *Dasymallomyia* with *Gnophomyia* was pointed out by Alexander. I did not know of the group of tropical American species with short hairy legs to which he refers. The genus *Gnophomyia* was imperfectly understood by me in the preparation of my work. However, Mr. Edwards is inclined to retain *Dasymallomyia* for one of the groups of species comprised in *Gnophomyia*, and it is here regarded provisionally as a valid genus.

**signata** Brun., *loc. cit.*, 304, ♀ (1911).

*Id.*, Fauna Brit. Ind., 495, ♀, pl. x, 4.

Kurseong, 7-ix-09 [*Lynch*]; Horisha, Formosa, 10-v-13 [*Maki*]. *Type* in Indian Museum.

**maculipleura** Edw., Ann. Mag. Nat. Hist. (8) XVII, 360, ♂ ♀, fig. 5, p. 356, genitalia (1916).

Bukit Besar, Siam [*Robinson and Annandale*].

**fraterna**, *id.*, *loc. cit.*, 361, ♂, fig. 6, p. 356, genitalia (1916).

Selangor [*Butler*].

**nigrescens**, *id.*, *loc. cit.*, 361, ♀ (1916).

Talum, Perak, 3500 ft., 17-i-02 [*Robinson and Annandale*].

*Types* of last three species in British Museum.

**similis** Edw., Ann. Mag. Nat. Hist. (8) XVIII, 251, ♀, pl. xii, 3 genitalia (1916).

Arisan, Formosa, 8000 ft., 10-x-12 [*Nitobe*].

*Type* in British Museum.

#### Oxydiscus, de Meij.

Tijd. v. Ent. LVI, 350 (1913).

GENOTYPE, *O. nebulosus* de Meij., the original species.

**nebulosus** de Meij., *loc. cit.*, 351, ♀ (1913).

Tjinjiruan, West Java [*v.d. Weele*].

Unique *type* in Amsterdam Museum.

**umbrosus** Edw., Ann. Mag. Nat. Hist. (8) XVII, 361, ♀ (1919).

Kedah Peak, 3200 ft., Malay Peninsula [*Stanton*].

Unique *type* in British Museum.

#### Clydonodozos, Ender.<sup>1</sup>

Zool. Jahr. XXXII, 57 (1912).

Brun., Rec. Ind. Mus. XV, 318.

GENOTYPE, *C. multistriatus*, *id.*, sp. nov., *loc. cit.*

**multistriatus** Ender., *l. c.*, 57, ♂ ♀, fig. J<sup>1</sup>, wing (1912).

Bekantiang, Sumatra.

*Types* in Stettin Zoological Museum.

**punctulatus**, *id.*, *loc. cit.*, 59 (sex?) fig. K<sup>1</sup>, wing.

Soekaranda, Sumatra.

The unique *type* in Stettin Zoological Museum.

**griseiceps** de Meij., Tijd. v. Ent. LVIII, Supp. II, ♀ (1910).

Sinabang, Simalur Is. off W coast Sumatra, ii.

*Type* in Amsterdam Museum, a unique ♀

<sup>1</sup> In Mr. Edwards' opinion this genus is doubtfully distinct from *Conosia*.

**Conosia, Wulp.**

Tijd. v. Ent. XXIII. 159, pl. x, 5—7 (1880).

Ost. Sack., Berl. Ent. Zeits. XXXI, 206:  
Brun., Fauna Brit. Ind., 496.

GENOTYPE, *Limnobia irrorata* W., by original designation.

**irrorata** Wied., Auss. Zweifl. I, 574, ♀ (*Limnobia*) (1828).

*Auctt. var.*; Brun., Rec. Ind. Mus. VI, 283: Fauna Brit. Ind., 497, ♂ ♀, fig. 43, lateral view, pl. x, 5, wing.

*Limnobia substituta* Walk., List Dipt. Brit. Mus. I, 39 (1848).

*Limnophila crux* Dol., Nat. Tijd. Ned. Ind. XIV, 388, pl. iv, 3, full insect (1857).

Apparently distributed generally throughout the Orient, common in many places, and extending from Peshawar District [*Fletcher*] to Assam, Cochin, Java, Formosa, Sumatra, China, Japan and Australia. Dr. Annandale took it at Lake Tiberias in Palestine.

*Type* presumably in Westemanns' coll. at Vienna Museum.

**Cladura, Ost. Sack.**

Proc. Acad. Nat. Sci. Philad. p. 229 (1859).

Ost. Sack., Monog. Dipt. N. Amer. IV, 187:  
Berl. Ent. Zeits. XXXI, 205: Brun., Rec. Ind.  
Mus. VI, 283 (the *Cladura* group); XV, 319:  
Fauna Brit. Ind., 499.

GENOTYPE, *C. flavoferruginea* Ost. Sack., by original designation.

**flavescens** Brun., Rec. Ind. Mus. VI, 284, ♂ ♀ (1911).<sup>1</sup>

*Id.*, Fauna Brit. Ind., 501, ♂ ♀, pl. x, 6, wing: Rec. Ind. Mus. XV, 319 (retention of species in *Cladura*).

Darjiling, 7-viii-09, *type* ♂; 6-viii-09, *type* ♀ [both *Paiva*].  
*Types*, a unique pair, in Indian Museum.

**interrupta** Brun., Rec. Ind. Mus., XV, 319, ♀ (1918).

Pashok, Darjiling Distr., 3500 ft., 26 v—14-vi-16 [*Gravelly*].  
*Type* in Indian Museum.

**Paracladura, Brun.**<sup>2</sup>

Rec. Ind. Mus. VI, 286 (1911).

*Id.*, Fauna Brit. Ind., 502: *id.*, Rec. Ind. Mus. XV, 320 (position criticised).

GENOTYPE, *P. gracilis* Brun., by original designation.

<sup>1</sup> *C. flavescens* is almost certainly a *Cladura* in Osten Sacken's sense, agreeing with his description and with Needham's figure. I think Alexander is in error in claiming that my species is wrongly placed generically.

<sup>2</sup> For discussion on Alexander's objection to this genus, v. Brun., Rec. Ind. Mus. XV, 320.



**gracilis** Brun., Rec. Ind. Mus. VI, 287 ♂ ♀ (1911).

*Id.*, Fauna Brit. Ind., 503, ♂ ♀, pl. x, 9, wing, 10 antenna.  
Darjiling, 28—29-v-10 [*Brunetti*].

*Types*, a unique pair, in Indian Museum.

**elegans** Brun., Rec. Ind. Mus. VI, 288, ♀ (1911).

*Id.*, Fauna Brit. Ind., 504, ♀  
Darjiling, 26—29-v-10 [*Brunetti*]. *Type* in Indian Museum.

### Symplecta, Mg.

Syst. Besch. VI, 282 (1830).

Sch., F. Austr. II, 545: Ost. Sack., Monog. Dipt. N. Amer. IV, 170, pl. i, 20, wing, iv, 21, forceps: *id.*, Berl. Ent. Zeits. XXXI, 197: Brun., Fauna Brit. Ind., 485.

GENOTYPE, *Limnobia punctipennis* Mg., as *hybrida*, by Westwood's designation.

*Helobia* St. Farg. et Serv., Encyc. Meth. Ins. X, 585 (1825).

GENOTYPE, *Limnobia hybrida* Mg. as *L. punctipennis* Mg., by original designation.

*Idioneura* Phil., Verh. zool. bot. Gesch. Wien. XV, 615, pl. xxiii, 4 (1865).

GENOTYPE, *I. macroptera*, *id.*, *loc. cit.*, sp. nov.

*Symplectromorpha* Mik., Wien. Ent. Zeits. V, 318 (1886).

GENOTYPE, *Limnobia stictica* Mg., by original designation.

**punctipennis** Mg., Syst. Besch. I, 147, pl. v, figs. 2, 3, 7 (*Limnobia*) (1818).

*Aucttr var.*: Brun., Fauna Brit. Ind., 486, ♂ ♀, pl. ix, 15, wing.

Peshawar, 19-iii-13 [*Howlett*]; Darjiling, 22—30-ix-08 [*Brunetti*]; 5—6-viii-09 [*Paiva*]; Matiana, Simla Distr., 8000 ft., 28—30-iv-07 [*Annandale*]. Also Europe.

*Type* in the Meigen collection at Paris Museum, but practically nothing remains of it but the wings.

### Section AMALOPINI.

Ost. Sack., Monog. Dipt. N. Amer. IV, 259:  
Brun., Rec. Ind. Mus. VI, 305: *id.*, Fauna Brit. Ind., 507.

*Amalopina*, Ost. Sack., Monog. Dipt. N. Amer. IV, 259.

*Pediciinae*, Kert., Kat. Dipt. II.

**Trichocera, Mg.<sup>1</sup>**

Illig. Mag. II, 262 (1803).

Sch., F. Austr. II, 546: Ost. Sack., Mong. Dipt. N. Amer. IV, 233, pl. ii, 13, wing: *id.*, Berl. Ent. Zeits. XXXI, 217: Brun., Rec. Ind. Mus. VI, 305 (genus removed to Section Amalopini: *id.*, Fauna Brit. Ind., 508.

GENOTYPE, *Tipula hiemalis* Degeer, by original designation.

**ocellata** Walk., Ins. Saund. Dipt., pt. v, 433, ♀ (1856).

Brun., Fauna Brit. Ind., 510, ♀

East India; Theog, Simla Hills, 2-v-07 [*Annandale*]. *Type* in British Museum, in inferior condition. My redescription is from a single ♀ from Theog, on the assumption that the species is correctly identified.

**punctipennis** Brun., Fauna Brit. Ind., 511, ♂ ♀, pl. x, 13, wing (1912).

Simla, 23—25-iv-07 [*Annandale*].

*Types* in Indian Museum.

**flava**, *id.*, *loc. cit.*, 512, ♀ (1912).

Darjiling, 28-v-10 [*Brunetti*].

*Type*, a unique ♀, in Indian Museum.

**montana**, *id.*, *loc. cit.*, 513, ♂ (1912).

Badrinath, Garhwal Distr., 10,200 ft., W Himalayas, 27-v-10, ♂ [*Imms*]. *Type*, a unique ♂, in Indian Museum.

**Amalopsis, Hal. in Walk.**

Ins. Brit. Dipt. III, p. xv (1856).

Sch., F. Austr., II, 527: Ost. Sack., Monog. Dipt. N. Amer. IV, 260, pl. ii, 15, wing; iv, 30 genitals: *id.*, Berl. Ent. Zeits. XXXI, 224: Brun., Fauna Brit. Ind. 513: *id.*, Rec. Ind. Mus. XV, 321; Bergr., Ann. Mag. Nat. Hist. (8) XI, 583 (*Amalopsis* v. *Tricyphona*).

GENOTYPE, *Limnobia occulta* Mg. (*t.* Coquillett, 1910).

*Tricyphona*, Zett., Ins. Lapp. Dipt., 851 (1838).

GENOTYPE, *Limnobia immaculata* Mg., by original designation.

*Bophrosia*, Rond., Dipt. Ital. Prod. I, 183 and Errata (1856).

GENOTYPE, the same species as of *Tricyphona* by original designation.

<sup>1</sup> For reasons for removing the genus here, v. Brun., Rec. Ind. Mus. VI, 305.

*Crunobia*, Kol., Wien. Ent. Monats. IV, 391 (1860).

GENOTYPE, *C. schineri*, sp. nov., *loc. cit.*

? *Nasiterna*, Walleng., Entom. Tidskr. II, 179 (1881).

**glabripennis** Brun., Fauna Brit. Ind., 515, ♂, pl. x, 12, wing (1912).

Darjiling, 1-x-08, 2 and 10-vi-17 [*Brunetti*], Yembung, N.E. Ind. Frontier, 1100 ft., 15-i-12 [*Kemp*].

*Type* in Indian Museum.

**elegans** Brun., *loc. cit.*, 516, ♂ ♀, pl. x, 11, wing (1912).

Kurseong, 28-vi-10, *type* ♂; 20-vi-10, *type* ♀; 18-vi-10. *Types* in Indian Museum.

**spectralis** Brun., Rec. Ind. Mus. XV, 321, ♂, pl. vii, 4, wing (1918).

Pashok, Darjiling District, 3000 ft., 26-v—14-vi-16 [*Gravelly*]. *Type* in Indian Museum.

#### Amalopina, Brun.

Fauna Brit. Ind. 517 (1912).

GENOTYPE, *A. elegantula*, *id.*, sp. nov., *loc. cit.*

**elegantula** Brun., *loc. cit.*, 517, ♂ (1912).

Darjiling, 26-v-10 [*Brunetti*].

*Type*, a unique ♂ in indifferent condition, in Indian Museum.

#### Section LIMNOPHILINI.<sup>1</sup>

*Trichocerinae*, Kert., Kat. Dipt. II, 218 (1902).

#### Rhaphidolabis, Ost. Sack.

Proc. Ent. Soc. Philad. p. 225 (1865).

Ost. Sack., Monog. Dipt. N. Amer. IV 284, pl. ii, 17, wing: Brun., Fauna Brit. Ind., 517: *id.*, Rec. Ind. Mus. XV, 322, placed unintentionally in Eriopterini, notes *re antennae*.

GENOTYPE, *R. tenuipes* Ost. Sack., by original designation.

*Plectromyia*, Ost. Sack., Monog. Dipt. N. Amer. IV, 282 (1869).

GENOTYPE, *P. modesta*, *id.*, sp. nov., *loc. cit.*

? *Claduroides*, Brun., Rec. Ind. Mus. VI, 288 (1911): Fauna Brit. Ind., 505.<sup>2</sup>

GENOTYPE, *C. fascipennis*, *id.*, sp. nov., *loc. cit.*

**sordida** Brun., Rec. Ind. Mus. VI, 290, ♂ ♀ (*Claduroides*) (1911).

*Id.*, Fauna Brit. Ind., 506, ♂ ♀ (*Claduroides*).

<sup>1</sup> For characters, etc. v. Ost. Sack., Monog. Dipt. N. Amer. IV 190 and Brun., Fauna Brit. Ind., 521.

<sup>2</sup> See Brunetti, Rec. Ind. Mus. XV 320, 322, for validity of *Claduroides*.

- Simla, 10-v-09, *type* ♂, 12-v-09; Kurseong, 4-ix-09, *type* ♀; Phagu [all *Annandale*]. *Types* in Indian Museum.
- fascipennis** Brun., Rec. Ind. Mus. VI, 289, ♂ ♀ (*Claduroides*) (1911).  
*Id.*, Fauna Brit. Ind., 505, pl. x, 7, wing, 8, antenna (*Claduroides*) (1912).  
*Gnophomyia longipennis*, Brun., Fauna Brit. Ind., 489, ♀, pl. ix, 17, wing (1912).  
*Rhaphidolabis fascipennis*, *id.*, *loc. cit.*, 519, ♀, pl. x, 14, wing (1912).  
 Darjiling, 20-ix-08, *type* [*Brunetti*]; 9-viii-09 [*Paiva*]; Kurseong, 7-ix-09; Phagu, 12-v-09 [both *Annandale*]; Dhakuri, Kumaon Div., 8900 ft. [*Imms*]. *Types* of *R. fascipennis*, *G. longipennis* and *C. fascipennis* all in Indian Museum.
- incompleta** Brun., Fauna Brit. Ind., 493, ♂, pl. x, 2, wing (*Gnophomyia*) (1912).  
 Kurseong, 7-ix-09 [*Annandale*].  
 Unique *type* in Indian Museum.  
 Alexander has noted that this species would fall in *Plectromyia*, Ost. Sack., but this is now generally sunk in *Rhaphidolabis*.
- indica** Brun., Fauna Brit. Ind., 519, ♂ ♀, pl. x, 15, wing (1912).  
 Theog, 27-iv-07, *type* ♂; Matiana, 28—30-iv-07, *type* ♀; Phagu [all *Annandale*]. *Types* in Indian Museum.
- brunettii** Edw., Ann. Mag. Nat. Hist. (8) XVIII, 254, *nom. nov.* for *aperta* Brun., preocc. Coq. (1916).  
*aperta* Brun., Fauna Brit. Ind., 492, ♂, pl. x, 1, wing (*Gnophomyia*) (1912).  
 Darjiling, 8-viii-09 [*Paiva*]; Arisan, Formosa, 8000 ft., 10-x-12 [*Nitobe*]. *Type* in Indian Museum.

### Limnophila, Macq.

Hist. Nat. Dipt. I, 95 (1834).

Sch., F. Aust. II, 554: Ost. Sack., Monog. Dipt. N. Amer. IV, 196—202, pl. ii, 6, 7, 9, 10, wings; iv, 23—27, ♂ genitalia: Brun., Fauna Brit. Ind., 521: Rec. Ind. Mus. VI, 306, notes; XV, 323, tab. orient. spp.

GENOTYPE, *Limnobia ferruginea* Mg., according to Coquillett (1910), who replaces the generic name by *Phylidorea*, Big.

*Limnomya*, Rond., Dipt. Hal. Prod. IV, Corrigenda, 11 (1861): *nom. nov.* for *Limnophila*.

*Pilaria*, Sintensis, Sitzs. Naturf. Ges. Dorpat VIII, 398 (1888).

GENOTYPE, *Limnobia pilicornis* Zett., by Coquillett's designation.

**terminalis** Walk., Proc. Linn. Soc. Lond. V, 230, ♀ (*Limnobia*) (1861).

de Meij., Nova Guin. Res. IX, 309, pl. x, 4, wing: Brun., Rec. Ind. Mus. VI, 306.

Dorey, Papua; Bivak Is., Papua, xii; Regen Is, Papua ix, x [Lorentz]. *Type* in British Museum, useless for comparison.

**selectissima** Walk., Proc. Linn. Soc. Lond. VII, 202, ♂ (*Limnobia*) 1864).

Mysol. *Type* in British Museum.

**contingens**, *id.*, *loc. cit.*, VIII, 104, ♂ (*Limnobia*) (1865).

Papua. *Type* in British Museum, abdomen and legs missing.

**trisignata**, *id.*, *loc. cit.*, VIII, 105, ♀ (*Limnobia*) (1865).

Brun., Rec. Ind. Mus. VI, 306.

Papua. *Type* in British Museum in fair condition.

**opaca** de Meij., Tijds. v. Ent. LIV, 52, ♀, pl. iv, 44, wing (1911).

Wonosobo, Java, v [Jacobson].

*Type*, a unique ♀, in Amsterdam Museum.

**genitalis** Brun., Fauna Brit. Ind., 490, ♂ ♀, pl. ix, 16, wing (*Gnophomyia*) (1912).

Bhowali, Kumaon Div., 27-vi-10 [Imms].

*Types* in Indian Museum, unique.

**furcata**, *id.*, *loc. cit.*, 491, ♂ ♀, pl. ix, 18, wing (*Gnophomyia*) (1912).

Darjiling, 5—10-viii-09 [Paiva].

*Types* in Indian Museum.

**pallidicoxa** Brun., *loc. cit.*, 523, ♀ (1912).

Kurseong, 4-vii-08 [Annandale]; '26-iii-10 [Gravelly]; Bhogaon, [Paiva]; Bhowali, Kumaon, 14-vi-10, at light [Imms]. Cherrapunji, Assam, 4400 ft., 2—8-x-14 [Kemp].

*Type* in Indian Museum.

**simplex**, *id.*, *loc. cit.*, 523, ♀ (1912).

Pattipola (hills), Ceylon [Annandale], Bhowali, 29-vi-10 [Imms]. *Type* in Indian Museum.

**multipunctata**, *id.*, *loc. cit.*, App. 569 (1912).

Nilgiri Hills. The unique *type* in the Indian Museum.

**honesta**, *id.*, *loc. cit.*, App., 570, ♀ (1912).

Kumaon Division. The unique *type* in the Indian Museum.

**claripennis**, *id.*, Rec. Ind. Mus. VIII, 153, ♀ (1913).

Yembung, N.E. Indian Frontier, 1100 ft., 13-i-12 [Kemp].

*Types* in Indian Museum.

**quartarius**, *id.*, *loc. cit.*, 154, ♂ ♀ (1913).

Rötung, N. E. Indian Frontier, 1400 ft., 26—27-xii-11 [Kemp].

*Types* in Indian Museum, the ♀ in bad condition.

- apicalis** de Meij., Nova Guin. Res. IX, 309, ♀, pl. x, 3, wing (1913).  
Alkmaar, S.W. Papua [*Lorentz*].  
Type in Amsterdam Museum, unique.
- javana** de Meij., Tijd. v. Ent. LIX, 198, ♂ ♀, pl. vii, 11, wing (1916).  
Gedeh, Java, 1500—2000 metres, June [*Konigsberger*].  
Unique ♂ in Amsterdam Museum.
- amica** Alex., Proc. U.S. Nat. Mus. XLIX, 175, ♂, pl. xlv, 22, wing (1916).  
Java, Tjibodas, Mt. Gedé, Java, 4500 [*Bryant and Palmer*].  
Type, Cat. No. 19023, U.S. Nat. Mus.
- palmeri**, *id.*, *loc. cit.*, 175, ♂ (1916).  
Java, taken in company with above species.  
Type, Cat. No. 19024, U.S. Nat. Mus.
- demeijeri** Edw., Tr. Zool. Soc. XX, 393, ♀, pl. xxxviii, full ins. col. (1915).  
Upper Utakwa Valley, Papua, 5000—10,000 ft., ii—iii-13. The unique type (presumably) in British Museum.
- annulipes** Brun., Rec. Ind. Mus. XV, 324, ♂ (1918).  
Talewadi, N. Kanara Distr., 3—10-x-16 [*Kemp*].  
Unique type in Indian Museum.
- parvicellula**, *id.*, *loc. cit.*, 325, ♂ (1918).  
Taken in company with *annulipes* [*Kemp*].  
Unique type in Indian Museum.
- glabra**, *id.*, *loc. cit.*, 325, ♂ (1918).  
Taken in company with *annulipes* (11—26-x-16) [*Kemp*].  
Unique type in Indian Museum.
- fusca**, *id.*, *loc. cit.*, 326, ♂ ♀ (1918).  
Sureil, Darjiling District, 5000 ft., iv—v-17 [*Kemp*].  
Types in Indian Museum.
- incompleta**, *id.*, *loc. cit.*, 326, ♂ (1918).  
Taken in company with *fusca*. Type in Indian Museum.
- inconsequens**, *id.*, *loc. cit.*, 326, ♂ (1918).  
Castle Rock, N. Kanara Distr., 11—26-x-16 [*Kemp*]; Coonoor, 3-ix-11, banks of a rivulet [*Howlett*]. Type in Indian Museum.
- flavipennis**, *id.*, *loc. cit.*, 327, ♀, pl. viii, 14, wing (1918).  
Darjiling, 6900 ft. 17-v-17 [*Brunetti*].  
Unique type in my collection.
- ornatipennis**, *id.*, *loc. cit.*, 328, ♂ ♀, pl. vii, 5, wing (1918).  
Soom, Darjiling District, 4000—5000 ft., 14-vi-14, type ♂;  
Darjiling, 7000 ft., 12-vi-14, type ♀ [both *Gravelly*].  
Types in Indian Museum.

**sp. incert., enchroma** Walk., Proc. Linn. Soc. Lond. VI, 4 (*Limnobia*) (1862).

Brun., Rec. Ind. Mus. VI, 306.

This species is doubtful, described originally from Gilolo, and apparently not seen since. Osten Sacken refrained from confirming the single specimen as a *Limnophila*, as the antennae were missing. The *type* is now legless also but the conspicuously marked wings would render identification of the species possible.

### Dicranophragma, Ost. Sack.

Proc. Acad. Nat. Sci. Philad. 240 (1859).

Brun., Fauna Brit. Ind., 524.

GENOTYPE, *D. fuscovaria* Ost. Sack., by original designation.

**pulchripennis** Brun., Fauna Brit. Ind., 524, ♂ (1912).

Kurseong, 4—9-ix-09, *type* ♂, 27-vi-10 [both *Annandale*]; Darjiling, 8—11-viii-09, *type* ♀ [*Paiva*]; Kalimpong, 600—4500 ft., 24-iv—10-v-15 [*Gravelly*]; Bhoirakund, Darrang Distr., Assam-Bhutan Frontier, 8—22-x-12 [*Kemp*] (with a doubt).

*Types* in Indian Museum.

**gracilis, id.**, Rec. Ind. Mus., VIII, 156, ♀, pl. vi, 3, wing (1913).

Yembung, N.E. Frontier, India, 1100 ft., 13-i-12 [*Kemp*].

*Type* in Indian Museum, a unique specimen.

**remota** de Meij., Tijd. v. Ent. LVI, Supp., p. 1 (1914).

Buitenzorg, iv-09 [*Bryant and Palmer*]; Nongkodjadar, Java, ♂ ♀ [*Jacobson*], Tjibodas, Mt. Gedé, Java, 4500 and 9000 ft. [*Bryant and Palmer*]. *Types* in Amsterdam Museum.

**multipunctipennis** Brun., Rec. Ind. Mus. XV, 319, ♂; pl. viii, 17 (1918).

Darjiling, 15—19-v-17. Unique *type* in my collection.

### Epiphragma, Ost. Sack.

Proc. Acad. Nat. Sci. Philad. 238 (1859).

Sch., F. Austr. II, 550: Ost. Sack., Monog. Dipt. N. Amer. IV, 193, pl. i, 8: *id.*, Berl. Ent. Zeits. XXXI, 208.

GENOTYPE, *Limnobia fascipennis* Say (as *pavonina*, sp. nov.), by Coquillett's designation.

**insignis** Wulp, Tijd. v. Ent. XXI, 196, pl. xii, 6 (1878).

Sumatra. *Type* in Amsterdam Museum, in bad condition.

**signata** de Meij., *loc. cit.*, LIV, 52, ♂, pl. iv, 43, wing (1911).

Buitenzorg environs, Java, xi [*Jacobson*], Tjibodas, Mt. Gedé, Java, 4500 ft. [*Bryant and Palmer*].

*Type*, a unique ♂, in Amsterdam Museum.

**kempi** Brun., Rec. Ind. Mus. VIII, 155, ♀, pl. vi, 2, wing (1913).  
Edw., Ann. Mag. Nat. Hist. (8) XII, 204 (1913): Brun.,  
Rec. Ind. Mus. XV, 330.

N.E. Frontier, India, 4000 ft., 16-iii-12 [*Kemp*]; Hakgala,  
Ceylon, 4500 ft., v-1911; Castle Rock and Talewadi, N. Kanara  
Distr. [*Kemp*]; Tura, Garo Hills, vii, viii-17 [*Kemp*].

*Type* in Indian Museum.

**klossi** Brun., Rec. Ind. Mus. XV, 330, ♂, pl. viii, 16, wing (1918).  
Ginting Bidai, 2,000 ft., Selangor-Pahang Frontier, Fed. Malay  
Sts., iv-17 [*Boden Kloss*]. Unique *type* in Indian Museum.

**vicina**, *id.*, *loc. cit.*, 331, ♀; pl. viii, 15, wing (1918).

Sureil, Darjiling Distr., 5,000 ft., 11-31-x-17 *type* [*Annandale*  
and *Gravelly*]; above Tura, Garo Hills, 3,500—3,900 ft., vii-17,  
viii-17 [*Kemp*]. *Type* in Indian Museum.

### **Ephelia**, Sch.

Wien. Ent. Monats. VII, 222 (1863).

Sch., F. Austr. II, 549: Brun., Fauna Brit.

Ind., 525.

GENOTYPE, *Limnobia marmorata* Hffg. in Mg., by personal  
designation (Fauna, p. 525).

*Elveophila*, Rond., Dipt. Hal. Prod. I, 182 (1856).

GENOTYPE, *Limnobia marmorata* Hffg. in Mg.

? *Nasiterna*, Wallengren, Ent. Tidskr. II, 179 (1881).

**fascipennis** Brun., Fauna Brit. Ind., 526, ♂, pl. x, 16, wing  
(1912).

Kurseong, 13-viii-09 [*Paiva*]; Pashok, 3500 ft. [*Hartless*];  
Arisan, Formosa, 8000 ft., 10-x-12 [*Nitobe*].

*Type* in Indian Museum.

**ornata**, *id.*, *loc. cit.*, 527, ♀ (1912).

Bhowali, Kumaon, 27-vi-10 [*Imms*].

*Type* in Indian Museum, a unique specimen.

### **Poecilostola**, Sch.

Wien. Ent. Monats. VII, 222 (1863).

Sch., F. Austr. II, 551.

GENOTYPE, *Limnobia pictipennis* Mg., by original  
designation.

**pallens** Wulp, Notes Leyd. Mus. VII, 13 (1885).

*Id.*, Tijd. v. Ent. XXVIII, 86, pl. iv, 8.

Java [*Kuhl*]. *Type* in Leyden Museum.

### **Ula**, Hal.

Entom. Mag. I, 153 (1833).

GENOTYPE, *Limnobia macroptera* Macq. as *U.*  
*mollissima*, sp. nov.



**javanica** Alex., Proc., U.S. Nat. Mus., 176, pl. xlv, 24, wing (1916).

Tjibodas, Mt. Gedé, Java, 8000 ft. [*Bryant and Palmer*].

*Type*, Cat. No. 19,025, U.S. Nat. Mus.

Alexander removes this genus to the Limnophilini having bred a North American species and found the larva quite limnophiline.

### Gynoplistia, Westw.

Lond. and Edinb. Philos. Mag. VI, 280 (1835).

Westw., Trans. Ent. Soc. Lond., 369 (1881), pl. xviii, 5, 6; Ost. Sack., Berl. Ent. Zeits. XXXI, 210; Brun., Rec. Ind. Mus. VI, 306 (notes on Orient. spp.).

GENOTYPE, *Ctenophora vilis* Walk., by personal designation, 1918.

*Anoplistes*, Westw., Zool. Jour., No. 20, ined.

GENOTYPE unknown to present author.

*Caenarthria*, Thoms., Eug. Resa, 445, pl. ix, 1.

GENOTYPE, *Gynoplistia viridis* Westw., by original designation.

*Cloniophora*, Sch., Verh. zool. bot. ges. Wien XVI, 932 (1866).

GENOTYPE, *Gynoplistia subfasciata* Walk., by original designation.

**jurgiosa** Walk., Proc. Linn. Soc. Lond. III, 78, ♂ ♀ (1859).

Aru. *Types*, in good condition, in British Museum.

**fulviceps**, *id.*, *loc. cit.*, V, 231, ♀ (1861).

Dorey, Papua. *Type* in British Museum in good condition, except that the abdomen is missing.

**melancholica**, *id.*, *loc. cit.*, VII, 203, ♂ ♀ (1864).

de Meij., Bijd. tot de Dierk. XIX, 41, notes.

Mysol, Waigon, 7-i-10. *Type* in British Museum in good condition, except that the abdomen is missing.

**insolita** Walk., Proc. Linn. Soc. Lond. VIII, 131, ♀ (1865).

Salawatti. *Type* in good condition in British Museum.

**jucunda** Ost. Sack., Ann. Mus. Gen. XVI, 405, ♂ ♀ (1880).

Kandari, Celebes. *Types* originally in Genoa Museum, only one now remaining.

**8-fasciata** Brun., Rec. Ind. Mus., VI, 307, ♀ (1911).

Patuhuang, South Celebes. Unique *type* in Vienna Museum.

**occipitalis** de Meij., Nova Guin. Res. IX, 310, ♂ (1913).

River Kamp, Papua, 12-ii-10.

Unique *type* in Amsterdam Museum.

Section ANISOMERINI.<sup>1</sup>**Eriocera**, Macq.

Dipt. Exot. I, 1, 74, pl. x, 2 (1838).

Ost. Sack., Mong. Dipt. N. Amer. IV, 244: *id.*, Berl. Ent. Zeits. XXXI, 220: Brun., Rec. Ind. Mus. VI, 307, notes, orient. spp.; XV, 334, tab. orient. spp.: *id.*, Fauna Brit. Ind., 530: *Auctt.*

GENOTYPE, *Limnobia nigra* W., by Macquart's designation.

*Caloptera*, Guer., Voy. de la Coq., Zool., Ins., pl. xx, (1830) *vide Evanioptera*, *post.*

GENOTYPE, *C. fasciata*, *id.*, sp. nov., *loc. cit.*

*Evanioptera*, *id.*, *loc. cit.*, Zool. II. 287, pl. xx, 2, full ins., 2a, head in profile; 2b, wing. (in plate as *Caloptera*, in text renamed *Evanioptera*)<sup>2</sup> (1830), *nom. nov.* for *Caloptera* under alleged pre-occupation.

*Pterocosmus*, Walk., List Dipt. Brit. Mus. I. 78 (1848).

GENOTYPE, *P. hilpa* Walk., by Coquillett's designation.

*Oligomera*, Dol., Nat. Tijd. Ned. Ind. XIV, 387 (1857).

GENOTYPE, *Limnobia acrostacta* W., as *javensis*, sp. nov., by original designation.

*Physecrania*, Big., Ann. Soc. Ent. Fran. (3) VII, 123 (1859).

GENOTYPE, *P. obscura* Big., sp. nov., *loc. cit.*

*Arrhenica*, Ost. Sack., Proc. Acad. Nat. Sci. Phil., 243 (1859).

GENOTYPE, *A. spinosa* Ost. Sack., by Coquillett's designation.

*Androclosma*, Ender., Zool. Jahr. XXXII, 34 (1912).

GENOTYPE, *Megistocera verticalis* Wied., by original designation.

**acrostacta** Wied., Dipt. Exot. I, 14 (*Limnobia*) (1821).

*Id.*, Auss. Zweifl. I, 26, ♂ ♀ (*Limnobia*): Macq., Dipt. Exot. I, 1, 68, pl. ix, 1, full ins., 1a, head profile (*Cylindrotoma*): *id.*, *loc. cit.*, Supp. I, 18, pl. ii, 6, wing, 6a, antenna (*Limnobia*); *id.*, *loc. cit.*, Supp. III, 7 (*Cylindrotoma*): Wulp, Notes

<sup>1</sup> For characters, *v.* Brun., Fauna Brit. Ind., 529.

<sup>2</sup> In the text, Guerin changes the name of the genus on account of having been previously employed by the Count of Castelnau in Coleoptera, but I cannot trace any such genus. The name *Caloptera*, however, has been suggested in four different cases subsequent to its use by Guerin.

Leyd. Mus. VII, 11: Alex., Proc. U.S. Nat. Mus. XLIX, 177, pl. xlv, 26, wing: Brun., Rec. Ind. Mus. XV, pl. viii, 19, wing.

*Oligomera javensis*, Dol., Nat. Tijd. Ned. Ind. XIV, 387, pl. vii, 3, full ins. (1857).

? *Limnobia, diana*, Macq., Hist. Nat. Dipt. I, 107 (1834): Walk., List Dipt. Brit. Mus. I, 42 (1848).

Java [*Muller*]; Tjibodas, Mt. Gedé, Java, iv-09 [*Bryant and Palmer*]; ? Bengal.

*Types* in Wiedemann's and Westermann's collections.

**basilaris** Wied., Dipt. Exot. I, 15, ♂ ♀ (*Limnobia*) (1821).

*Id.*, Auss. Zweifl. I, 27 (*Limnobia*): Alex., Proc. U.S. Nat. Mus. XLIX, 177, pl. xlv, 27, wing.

Java, var. locs., iii, iv, v, xii [*t. de Meij.*]; Depok, 10-ii-99; Tjibodas, Mt. Gedé, Java, iv-09 [*Bryant and Palmer*].

*Type* in Westermann's collection.

**mesopyrrha** Wied., Auss. Zweifl. I, 26, ♂ (*Limnobia*) (1828).

de Meij., Tijd. v. Ent. LIV, 55: Brun., Rec. Ind. Mus. VI, 307: Ender., Zool. Jahr. XXXII, 33 (*Physecrania*); Alex., Proc. U.S. Nat. Mus. XLIX, 177, pl. xlv, 28, wing.

Sumatra, Gunung Ungaran, Java, xii [*Jacobson*]; Buitenzorg, iii-09 [*Bryant and Palmer*]. *Types* in Leyden Museum.

**verticalis** Wied., Auss. Zweifl. I, 56, ♂ (*Megistocera*) (1828).

Wulp., Tijd. v. Ent. XXXVIII, 39, pl. ii, 6: de Meij., *loc. cit.*, LIV, 55: Brun., Rec. Ind. Mus., VI, 307; XV, 333: Alex., Proc. U.S. Nat. Mus. XLIX, 177, pl. xlv, 25, wing.

? *Megistocera atra* Dol., Nat. Tijd. Ned. Ind. XVII, 80 (1858).

Bantar Gebang, Java, 21-x-09 [*Bryant and Palmer*]; Semarang, xi, Wonosobo, iv, v [both *Jacobson*], Taihoku, Formosa [*Shiraki*]; Laut Tawar, viii, Sinabang, ii; both Simalur Is., off Sumatra; Sandaran Agong, Sumatra, 2450 ft., v, vi-14.

*Type* from Java in Leyden Museum in bad condition.

**nepalensis** Westw., Ann. Soc. Ent. Fran. IV, 681 (*Caloptera*) (1835).

*Id.*, Trans. Ent. Soc. Lond. 379 (*Caloptera*) (1881): Brun., Rec. Ind. Mus. VI, 308 also as *velutina*: *id.*, *loc. cit.*, XV, pl. vii, 13, wing: *id.*, Fauna Brit. Ind., 543.

*velutina* Walk., List Dipt. Brit. Mus. I, 79 (*Pterocosmus*) (1848).

Nepal, and generally distributed along the Himalayas, the Bhutan-Frontier and Assam, Shillong and Peshawar.

*Type* in the Hope collection at Oxford University.

**bicolor** Macq., Dipt. Exot. I, 1, 66, ♀, pl. vii, 2, full ins. (*Limnophila*) (1838).

Wulp., Mid Sum. Exped., Dipt. 11, pl. 1, 5, 6<sup>1</sup>: de Meij., Tijd. v. Ent. LIV, 57 (♂ descr.): Ender., Zool. Jahr. XXXII,

<sup>1</sup> Wulp erroneously gives figs. 4 and 5.

- 33 (*Physecrania*): Brun., Fauna Brit. Ind., 545: *id.*, Rec. Ind. Mus. XV, pl. vii, 6, wing.  
Bengal; Koetoer, Sumatra; Sandaran Agong, Korinchi Lake, Sumatra, 2450 ft., iv, v-1914; Java.  
*Type* in Paris Museum.
- sumatrensis** Macq., Dipt. Exot., Supp. IV, 16, ♂, pl. 1, 7, full insect (*Limnobia*) (1851).  
Brun., Rec. Ind. Mus. XV, pl. vii, 14, wing.  
Sumatra. *Type* in Paris Museum.
- leucotelus** Walk., Proc. Linn. Soc. Lond. I, 6, ♂ (*Limnobia*) (1857).  
Singapore.  
*Type* in British Museum, in fair condition, but legless.
- plecioides**, *id.*, *loc. cit.*, I, 6, ♂ (*Limnobia*) (1857).  
Singapore.  
*Type* in British Museum, only one leg remaining.
- dichroa**, *id.*, *loc. cit.*, I, 6, ♀ (*Limnobia*) (1857).  
Brun., Rec. Ind. Mus. VI, 308.  
Mount Ophir. *Type* in British Museum, in bad condition.
- rubescens**, *id.*, *loc. cit.*, I, 106, ♂ (*Limnobia*) (1857).  
Borneo. *Type* in British Museum, in fair condition.
- pyrrhochroma**, *id.*, *loc. cit.*, I, 106, ♂ (*Limnobia*) (1857).  
Borneo. *Type* in British Museum, in bad condition.
- lunigera**, *id.*, *loc. cit.*, I, 107, ♂ (*Pterocosmus*) (1857).  
de Meij., Tijds. v. Ent. LIV, 56, ♂ ♀: Ender., Zool. Jahr. XXXII, 39, ♂ ♀ redescr.: Brun., Rec. Ind. Mus. VI, 308.  
Borneo; Padang, etc., Sumatra; Buitenzorg, ix [*Jacobson*].  
*Type* in British Museum in bad condition.
- infixa**, Walk., Proc. Linn. Soc. Lond., I, 107, ♂ ♀ (*Pterocosmus*) (1857).  
Borneo.
- optabilis**, *id.*, *loc. cit.*, I, 107, ♀ (*Pterocosmus*) (1857).  
Brun., Rec. Ind. Mus. VI, 309.  
Borneo. *Type* in British Museum, valueless, apparently unique.
- combinata**, *id.*, *loc. cit.*, I, 107, ♀ (*Pterocosmus*) (1857).  
Brun., Rec. Ind. Mus. VI, 309.  
Borneo. *Type* in British Museum, damaged.
- diluta**, *id.*, *loc. cit.*, I, 108 (*Pterocosmus*) (1858).  
Brun., Rec. Ind. Mus. VI, 309.  
Borneo. *Type* in British Museum, valueless, sex unstated by Walker, now undiscoverable.
- albonotata** Loew, Peter's Natur. Reise Mozambique, Zool. V (Insek.) pl. i, 1 (*Limnobia*) (1862).  
Ost. Sack., Berl. Ent. Zeits. XXXI, 223: v. Roder, Entom. Nachr. XIX, 234: Brun., Rec. Ind. Mus. VI, 308: *id.*, Fauna Brit. Ind., 547 ♂ ♀ redesc.

Peradeniya, 10-x [*Humbert*]; Cannia, near Trincomalee, 30-vii; Ceylon (var. locs. *t.* Edwards); Maskeliya [*Green*].

Described originally from Mozambique.

*Type* in Berlin Museum.

**albipunctata** Wulp, Tijd. v. Ent. XXIII, 158, pl. x, 3 antenna, 4, wing (1880)

*Id.*, Notes Leyd. Mus. VII, 11: Brun., Rec. Ind. Mus. VI, 309.

Java, Semarang, i. *Type* originally in Amsterdam Museum, now lost, but other specimens (presumably *co-types*) present.

**morosa** Ost. Sack., Ann. Mus. Gen. XVI, 406, ♀ (1880).

Makassar. *Type* in Genoa Museum in fair condition.

**selene**, *id.*, *loc. cit.*, 406, ♀ (1880).

Enderl., Zool. Jahr. XXXII, 39: Brun., Rec. Ind. Mus. VI, 309.

Sumatra (Mt. Singalang).

*Type* in Genoa Museum in fair condition.

**lunata** Westw., Trans. Ent. Soc. Lond. 1881, 367, pl. xviii, 4.

Enderl., Zool. Jahr. XXXII, 35.

Sarawak. *Type*, unless in the Hope collection at Oxford, probably lost, no sex stated.

**perennis** Ost. Sack., Berl. Ent. Zeits. XXVI, 91, ♂ ♀ (1882).

Philippine Is. *Types*, a unique pair; location unknown.

**mansueta**, *id.*, *loc. cit.*, 92, ♂ ♀ (1882).

Philippines. *Types*, location unknown; probably originally in Osten Sacken's collection.

**ferruginosa** Wulp, Notes Leyd. Mus. VII, 13 (1885).

Enderl., Zool. Jahr. XXXII, 32, fig. S (wing) (*Physecrania*): Brun., Rec. Ind. Mus. VI, 309.

Java [*Kuhl*]; Semarang [*Jacobson*]; Sumatra.

*Type* in Leyden Museum.

**humberti** Ost. Sack., Berl. Ent. Zeits. XXXI, 221, ♀ (1887).

Brun., Fauna Brit. Ind., 536, ♀

Pundeloya Valley, Ceylon, 3,800—3,900 ft., 26-xi—27-xii-1859 [*Humbert*]. *Type* in Geneva Museum. Edwards thinks a ♂ from Uva Prov, Madulsima, Ceylon, may be this species.

**meleagris** Ost. Sack., Berl. Ent. Zeits. XXXI, 221, ♀ (1887).

Brun., Fauna Brit. Ind., 537, ♀

Between Nuwara Eliya and Gampola, Ceylon, 13—14-xii-1859 [*Humbert*]. Unique ♀ in Geneva Museum.

**pachyrrhina** Ost. Sack., Berl. Ent. Zeits. XXXI, 222, ♂ ♀ (1887).

Brun., Rec. Ind. Mus. VI, 309: *id.*, Fauna Brit. Ind., 537.

Kaduganawa, Ceylon, 8-x [*Humbert*].

*Types*, *in cop.*, in Geneva Museum.

**crystalloptera** Ost. Sack., Berl. Ent. Zeits., XXXI, 222, ♂ (1887).

Brun., Rec. Ind. Mus. VI, 309: *id.*, Fauna Brit. Ind., 541.

- Ceylon (Rambodde) [*Nietner*]; Madulsima, Pundaluoya, Haputule (all Ceylon ♂ ♀ and *t.* Edwards).  
*Type* (an imperfect ♂) in Berlin Museum.
- nigripennis** de Meij., *Bijd. tot de Dierk.* XVII, 92, ♀ (1904).  
 Java. Riedel notes a ♀ from Formosa. It would fall in *Physecrania*. *Type* in Amsterdam Museum.
- cingulata** de Meij., *Tijd. v. Ent.* LIV, 58, ♂ ♀ (1911).  
 Alex., *Proc. U.S. Nat. Mus.* XLIX, 178, pl. xlv, 29, wing.  
 Pangeranga, Java; Berg Ungaran, x, xii [*Jacobson*]; Depok, 10-ii-09 [*Bryant and Palmer*].
- ctenophoroides** Edw., *Ann. Mag. Nat. Hist.* (8) VIII, 64, ♂ ♀ (1911).  
 Brun., *Fauna Brit. Ind.*, 533.  
 Kandy, 19-v-92, *type* ♂; Kottawa, 29-iv-92, *type* ♀; Pallamadura, 17-vi-92 [all Ceylon and *Yerbury*].  
*Types* in British Museum. Edwards (*l.c.*) notes a variety.
- scutellata** Edw., *Ann. Mag. Nat. Hist.* (8) VIII, 65, ♂ ♀ (1911).  
 Brun., *Fauna Brit. Ind.*, 534.  
 Pundaluoya, Ceylon, ix-92 *type* ♂; x-1897, *type* ♀ [*E. E. Green*].  
*Types* in British Museum.
- tuberculifera** Edw., *Ann. Mag. Nat. Hist.* (8) VIII, 66, ♀ (1911).  
 Brun., *Fauna Brit. Ind.*, 547.  
 Pundaluoya, Ceylon, xi-88 (*type*) [*E. E. Green*]; vii-89.  
*Type* in British Museum.
- fusca** Edw., *Ann. Mag. Nat. Hist.* (8) VIII, 66, ♂ ♀ (1911).  
 Brun., *Fauna Brit. Ind.*, 541.  
 Pundaluoya, Ceylon, iv-89 [*E. E. Green*].  
*Types* in British Museum.
- badia** Brun., *Rec. Ind. Mus.* VI, 310, ♀ (1911).  
*Id.*, *Fauna Brit. Ind.*, 538, ♀  
 Peradeniya, 25-xii-01 [*Uzel*].  
*Type* in Vienna Museum, a unique specimen.
- rufibasis** Brun., *Rec. Ind. Mus.* VI, 310, ♀ (1911).  
*Id.*, *Fauna Brit. Ind.* 538, ♀  
 Tandong, Tenasserim, 4000 ft., May [*Fruhstorfer*].  
*Type* in Vienna Museum, unique.
- semilimpida** Brun., *Rec. Ind. Mus.* VI, 311, ♂ (1911).  
*Id.*, *Fauna Brit. Ind.*, 546 ♂ pl. x, 17, wing.  
 Khasi Hills, ix-1906, *type*; Nongpoh, Assam, vi-1906.  
*Type* in the Pusa Collection.
- plumbicincta** Brun., *Rec. Ind. Mus.* VI, 311, ♂ (1911).  
*Id.*, *Fauna Brit. Ind.*, 541, ♂, pl. xi, 16, abdomen: *id.*,  
*Rec. Ind. Mus.* XV, pl. vii, 11, wing.  
 Ukhrul, Manipur, viii-08, *type* [*Pettigrew*]; Darjiling, 3—9-vi-09, *cotype* [*Howlett*]; Phooboering, Lebong, 5000 ft., ix-10 [*Lefroy*].  
*Type* in Indian Museum, *cotype* in Pusa coll.

**fenestrata** Brun., Rec. Ind. Mus. VI, 312, ♂ ♀ (1911).

*Id.*, Fauna Brit. Ind., 535, ♂ ♀, pl. xi, 14, wing (part) 15, abdomen.

Central Tonkin, *type* ♂; Khasi Hills, 1000—3000 ft., iv-1905, *type* ♀ *Type* ♂ in Vienna Museum; *type* ♀ in Pusa collection.

**greeni** Brun., Rec. Ind. Mus. VI, 313, ♀ (1911).

*Id.*, Fauna Brit. Ind., 539, ♀: Rec. Ind. Mus. XV, pl. vii, 8, wing.

Kandy, 24-xi-09 [Green].

*Type* in Indian Museum, a unique specimen.

**angustipennis** Ender., Zool. Jahr. XXXII, 33, ♂, fig. T, wing (*Physecrania*) (1912).

Soerakanda, Sumatra.

*Type*, a unique ♂, in Stettin Museum.

**pannosa**, *id.*, *loc. cit.*, 40, ♂ ♀, fig. W, wing (1912).

Soerakanda. *Types*, a unique pair, in Stettin Museum.

**gamma**, *id.*, *loc. cit.*, 42, ♂ ♀, fig. X, wing (1912).

Soerakanda and Liangagas, Sumatra.

*Types* in Stettin Museum.

**sauteriana**, *id.*, *loc. cit.*, 42 ♀, fig. Y, wing.

Takao, South Formosa, Kotosho Is., Formosa, Arisan, Formosa, 8000 ft., 10-x-12 [Nitobe]. *Type* in Stettin Museum.

Reidel notes two ♂ ♂ from Formosa.

**paenulata**, *id.*, *loc. cit.*, 43, ♂, fig. Z, wing.

Soerakanda; Sungei Penoh, Korinchi Valley, Sumatra, 2600 ft., iii-14. *Type* in Stettin Museum.

**rufithorax** Brun., Fauna Brit. Ind., 534, ♂ ♀ (1912).

*Id.*, Rec. Ind. Mus. XV, pl. vii, 10, wing.

Kandy, viii-06, *type* ♂ ♀, ix-02; x-07, *cotype* ♂; Hadumalla, Ceylon [Green].

*Type* ♂ ♀ in Indian Museum, *cotype* ♂ in my collection.

**tenuis**, *id.*, *loc. cit.*, 539, ♂ (1912).

Nilgiri Hills, 3500 ft., iv-1910 [Andrewes]; Gudalur, Nilgiri Hills, 3000, 13-ix-17 [Ras].

*Type* in Indian Museum, a unique specimen.

**aterrima**, *id.*, *loc. cit.*, 540, ♀ (1912).

Maddathorai (Travancore). 18-xi-08 [Annandale].

*Type*, a unique ♀, in Indian Museum.

**elongatissima**, *id.*, *loc. cit.*, 542, ♂ (1912).

Trivandrum, vi-93, *type*; Aspamboo, Travancore, South India, vi-93. *Type* in Indian Museum.

**flavipes**, *id.*, *loc. cit.*, 544, ♂ (1912).

*Id.*, Rec. Ind. Mus. XV, 333, pl. vii, 15, wing.

Kurseong, 9-ix-09 [Annandale].

*Type* in Indian Museum, a unique specimen.

- testacea**, *id.*, Fauna Brit. Ind., 548, ♀ (1912).  
Nilgiri Hills, iv-1910 [*Andrewes*].  
*Type*, a unique ♀, in Indian Museum.
- nigerrima**, *id.*, Fauna Brit. Ind., App. 571, ♀ (1912).  
*Id.*, Rec. Ind. Mus. XV, pl. vii, 16, wing.  
Ghumti, vii-1911 [*Gravelly*].  
Unique *type* in Indian Museum.
- triangularis**, *id.*, Fauna Brit. Ind., App. 572, ♀ (1912).  
Nilgiri Hills, 6000 ft., v-1911 [*Andrewes*].  
*Type* in Indian Museum.
- nigrina** Riedel, Ent. Mitt. Berl., II, 273 (1913).  
Kankao, Formosa, ♂ ♀, vii, ix-1912.  
*Type* in Deut. Ent. Mus., *cotype* in Riedel coll.
- xanthopyga** de Meij., Tijd. v. Ent. LVI, Supp. p. 3, ♂ ♀, 1913  
(Mar. 1914).  
Nusa Kambangan, Java, iii [*Jacobson*].
- unicolor** de Meij., Tijd. v. Ent. LVIII, Supp. 12, ♂ ♀ (1916).  
Simalur Island, Sumatra; Horisha, Formosa, 10-x-12 [*Nitobe*];  
1000 ft. [*Maki*]. *Types* in Amsterdam Museum.
- simalurensis**, *id.*, *loc. cit.*, 13, ♂ ♀ (1916).  
Sinabang, ii, Laulo, viii, both, Simalur Island, off W Coast,  
Sumatra. *Types* in Amsterdam Museum, a unique pair.
- rubriceps** Edw., Ann. Mag. Nat. Hist. (8) XVIII, 253, ♀ (1916).  
Taipin, Formosa, 12-x-10 [*Shiraki*].  
Unique *type* in British Museum.
- lativentris** Bezzi, Phil. Jour. Sci. XII, Sect. D, 113, ♂ (1917).  
Luzon [*Baker*].
- crassipes**, *id.*, *loc. cit.*, 114, ♂ ♀ (1907).  
Luzon [*Baker*].
- cincta** nom. nov., Brun., Rec. Ind. Mus. XV, 333, pl. vii, 7, wing  
(1918).  
*E. cingulata* Brun., Fauna Brit. Ind., App. 570, ♂ (1912),  
preocc. de Meij., 1911.
- aurantia** Brun., Rec. Ind. Mus. XV, 335, ♀, pl. vii (1918).  
Pashok, 2500 ft. [*Gravelly*]; Kalimpong, Darjiling, 600—4500  
ft., 24-iv—10-v-14 [*Gravelly*]. A ♂ from Darjiling, 7000 ft.,  
12-vi-14 [*Gravelly*], is probably the ♂ of this species.  
*Type* in Indian Museum.
- nigroapicalis** Brun., *loc. cit.*, 335, ♀ (1918).  
Kalimpong, Darjiling, 24-iv—10-v-14 [*Gravelly*].  
Unique *type* in Indian Museum.
- pulchrithorax**, *id.*, *loc. cit.*, 336, ♀ (1918).  
On forest tramway, miles 10 to 14, 0—300 ft., Cochin State,  
28—29-ix-14 [*Gravelly*]. Unique *type* in Indian Museum.



- rufiventris**, *id.*, *loc. cit.*, 336, ♂ ♀ (1918).  
Parambikulam, Cochin State, 16—24-ix-14 [*Gravelly*]; Talewadi, 3—10-x-16; Castle Rock, 11—26-x-16; Sidapur, Coorg, S. Ind., 7-vi, 2-vii, 20-ix-17. *Types* in Indian Museum.
- gravelyi**, *id.*, *loc. cit.*, 337, ♂ ♀, pl. vii, 9, wing (1918).  
Pashok, Darjiling District, 1000—2500 ft., 26-v—14-vi-16 [*Gravelly*]; Sureil, iv—v-17 [*Kemp*]; Tura, Garo Hills, vii-17; x-17 [*Kemp*]. *Types* in Indian Museum.
- decorata**, *id.*, *loc. cit.*, 337, ♂, pl. vii, 12, wing (1918).  
Pashok, Darjiling District, 2000 ft., 26-v—14-vi-16 [*Gravelly*]. *Type* in Indian Museum.
- tripunctipennis**, *id.*, *loc. cit.*, 338, ♂ ♀, fig. 7, wing (1918).  
Castle Rock, N. Kanara Dist., 11—26-x-16 *type* ♂; Talewadi, N. Kanara Dist., 3—10-x-16, *type* ♀ [*Kemp*].  
*Types* in Indian Museum.
- caliginosa**, *id.*, *loc. cit.*, 339, ♀ (1918).  
Talewadi, N. Kanara Dist., 3—10-x-16 [*Kemp*].  
*Type* in Indian Museum.
- kempi**, *id.*, *loc. cit.*, 339, ♂ ♀ (1918).  
Castle Rock, N. Kanara Dist., 11—26-x-16 [*Kemp*].  
*Types* in Indian Museum.
- maculiventris**, *id.*, *loc. cit.*, 340, ♂ ♀, pl. viii, 18, wing (1918).  
Tura, Garo Hills, 1200—1500 ft., vii-17; above Tura, 3900 ft., vii, viii, x-17 [all *Kemp*].
- pyrrhomesa** Edw., Jour. Fed. Malay Sts. Mus. VIII, 21, ♂ ♀ (s.g. *Physecrania*) (1919).  
Sandaran Agong, Korinchi Peak, Sumatra, 2450 ft., v, vi-14.  
*Types* in British Museum.
- klossi**, *id.*, *loc. cit.*, 22, ♀, pl. iv, 14, wing (s.g. *Ericcera*) (1919).  
Sandaran Agong, Sumatra, 2450 ft., v, vi-14.  
*Type* in British Museum.

## Family RHYPHIDAE.

**Rhyphus**, Latr.

Hist. Nat. Crust. et Ins. XIV, 291 (1804).

Sch., F. Austr. II, 494: Brun., Rec. Ind. Mus. IV, 259, tab. Ind. spp.: *id.*, Fauna Brit. Ind., 500.

GENOTYPE, *Tipula fenestralis* Scop., the original species, as *fenestratum* Scop.

*Sylvicola*, Harris, Expos. Engl. Ins., 104 (1776).

GENOTYPE, *Tipula fenestralis* Scop., as *brevis*, sp. nov.; by Coquillett's designation.

*Anisopus* Mg., Illig. Mag. II, 264 (1803).

No species given in 1803. In "Klass." p. 103, *Tipula fuscata* F. as *fuscus*, sp. nov., is given as genotype, according to Coquillett.

**fenestralis** Scop.,<sup>1</sup> var. **indicus** Brun., Rec. Ind. Mus. IV, 261, ♂ ♀ (1911).

Brun., Fauna Brit. Ind., 554, ♂ ♀, pl. xii, 3 (typical), 4 (var.).

Simla, 24-iv-07, 10-v-09; Matiana, 28—30-iv-07; [both *Annandale*]; Darjiling 5—9-viii-09 [*Paiva*]; Kurseong, xi-10 [*D'Abreu*]; Ukhrul, Manipur, Assam, 6400 ft. [*Pettigrew*].

*Type* of *fenestralis* Scop., location uncertain; of var. *indicus* in Indian Museum. This form seems present at all the Hill Stations in Northern India.

**punctatus** F., Mant. Ins. II, 333 (*Rhagio*) (1787).

*Musca nigricans*, L., Fauna Suec., Ed. II, 553 (1761).

*Rhagio punctatus*, F., Mant. Ins. II, 333 (1787).

*Musca bilineata*, Gmel., Syst. Nat. V, 2866 (1792).

*Anisopus nebulosus*, Mg., Klass. I, 103, pl. vi, 5, ♂ (1804).

*Sciara punctata*, F., Syst. Antl., 59 (1805).

*Rhyphus marginatus*, Say, Jour. Acad. Sci. Phil. III, 27 (1822), and Compl. Writ. II, 50 (1859): Wied. Auss. zweifl. I, 82 (1828).

*Rhyphus punctatus* Sch., Fauna Austr. II, 495 (1864): Brun., Rec. Ind. Mus. IV, 262: *id.*, Fauna Brit. Ind. 555, pl. xii, 5, wing.

Kurseong, 9—26-ix-09 [*Lynch*, *Annandale*].

*Type*: location uncertain.

**maculipennis** Wulp, Notes Leyd. Mus. VII, 14, ♂ (1885).

*Id.*, Tijid. v. Ent. XXVIII, 87, pl. iv, 9: *id.*, *loc. cit.*, XXXVIII, 41; LIV, 258: Brun., Rec. Ind. Mus. IV, 260: *id.*, Fauna Brit. Ind., 552, ♂ ♀, pl. xii, 1, wing.

Ardjoeno, Java [*Hekmeyer*]; Batavia, ii; Pulu Babi Is., off W Coast, Sumatra, iv; Peradeniya, x, xii-07; also probably Assam (exemp. in Ind. Mus. coll. *sine loc.*, 30-vii-10).

*Type* in Leyden Museum, a ♂

**pulchricornis** Brun., Rec. Ind. Mus. IV, 260, ♀ (1911).

*Id.*, Fauna Brit. Ind. 553, ♀, pl. xii, 2, wing.

Siliguri, 18—20-vii-07; Ghumti, 4000 ft. [*Gravelly*].

*Type* in Indian Museum.

**distinctus** Brun., Rec. Ind. Mus. IV, 262, ♂ ♀ (1911).

*Id.*, Fauna Brit. Ind. 556, ♂ ♀, pl. xii, 6, wing.

Darjiling, 5—8-viii-09 [*Paiva*], Kurseong, 4-ix-9 [*Annandale*]; Kowpati, Mangaldai, Assam, 12-xii-10 [*Kemp*].

*Types* in Indian Museum.

**divisus** Brun., Rec. Ind. Mus. IV, 263, ♂ ♀ (1911).

*id.*, Fauna Brit. Ind. 557, ♂ ♀, pl. xii, 7, wing.

Darjiling, 5—12-viii-09 [*Jenkins*, *Paiva*, common]; Kurseong, 10—26-ix-09 [*Lynch*], Gangtok, Sikkim, 9-ix-09; Phagu, 12-v-09 [*Annandale*]. Two pairs taken *in cop*; Darjiling, 5-viii-09 and Gangtok, 6150 ft., 8-ix-09.

*Types* in Indian Museum.

<sup>1</sup> For references to typical form see Kertesz' Kat. Dip. I, 305.

**flavipes** de Meij., Tijd. v. Ent. LIV, 259, ♂ ♀, pl. xviii, 1, wing (1911).

Wonosobo, Java [*Jacobson*].

*Types*, a unique pair, in Amsterdam Museum.

**hellwigi** de Meij., Nova Guin. Res. IX, 315, ♀, pl. x, 8, wing (1913).

Hellwig-Gabirge, Papua, 2000 metres, xi.

*Type* in Amsterdam Museum.

### **Olbogaster**, Ost. Sack.

Biol. Cent. Am. Dipt. I, 20 (1886).

GENOTYPE *O. cognata* Ost. Sack., sp. nov.

**orientalis** Edw., Ann. Mag. Nat. Hist. (8) XVI, 504, ♀ (1915).

Pundaluoya, Ceylon, vii-97 [*Green*].

The unique *type* in the British Museum.

## II APPENDIX TO CATALOGUE

### (A) Additions to the Family CECIDOMYIDAE.

#### Subfamily CECIDOMYINAE.

##### Sect. LASIOPTERARIAE.

#### **Lasioptera**, Mg.

**manilensis** Felt, Phil. Jour. Sci., XIII, D. 288, ♀ (1918).

Laguna, Luzon, reared from leaf galls on *Leea manillensis*, Walp.

*Type*, Cecid. a 2851, New Yk. State colln.; *paratype* ♂ ♀ in College of Agric., Los Banos, Phil. Is.

**falcata** Banks, Phil. Jour. Sci. XIV, 288, ♀ (1919).

Los Banos, Laguna Prov., Luzon, 3-i-17.

*Type*, Cecid. a 2887, New York State collection, a unique specimen.

##### Sect. OLIGOTROPHARIAE.

#### **Luzonomyia**, Felt.

Phil. Jour. Sci. XIII, D. 282 (1918).

GENOTYPE *L. symphoremæ*, sp. nov.

This genus is near *Oligotrophus*, Latr.

**symphoremæ** Felt, Phil. Jour. Sci. XIII, D. 282, ♂ ♀ pl. i, 1, ♂ genitalia; 2, ♀ genitalia (1918).

Luzon (var. locs.); reared from leaf galls on *Symphorema luzonicum*, F. Vill.

*Type*, Cecid. a 2850, New Yk. State colln.; *paratype* No. 18,315 in College of Agric., Los Banos.