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## The type-material of Indonesian Tachinidae (Diptera) in the Zoological Museum, Amsterdam

R. W. CROSSKEY

### ABSTRACT

The type-material of Tachinidae described from Indonesia and housed in the Zoological Museum in Amsterdam is listed, its status determined and its data cited. Twenty-four lectotypes are newly designated for nominal species based on syntypes. Paralectotypes located in other museum collections are recorded for all those nominal species of which the lectotype is in Amsterdam, so as to provide complete information on the original type-material.

### INTRODUCTION

The insect collection of the Zoological Museum in Amsterdam contains the primary types (holotypes or lectotypes) of exactly 100 nominal species of Tachinidae described from Indonesia, almost all of them from Sumatra or Java. This substantial number means that the Zoological Museum holds the types of nearly one-fifth of the described species of Tachinidae from the Oriental Region as a whole, although aside from the 100 Indonesian species the collection contains only one type from elsewhere in the region (i.e. the male holotype of *Rhaphis elongata* Wulp from Ceylon); the collection also has a paralectotype of one species for which the lectotype is in Washington (see under *Eomyoceropsis longipennis* Townsend) so that a total of 101 species appears in the lists given later in the paper.

The types discussed have for convenience been listed alphabetically under their respective authors, the total of 101 nominal Indonesian species being made up of 15 described by van der Wulp, 7 by de Meijere and 79 by Townsend. Of these, 58 were described from unique holotypes and 43 from two or more syntypes (i.e. from syntypic series requiring lectotype fixation). Lectotypes have already been designated in the literature for some species

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(see appropriate references given in the text), but lectotypes are newly designated in the present paper for twenty-four species that had previously been without a valid lectotype fixation.

Attention should be drawn here to the citations of types given by Townsend (1938—1941) in volumes 7—11 of his *Manual of Myiology*. When Townsend (1926, 1927) described his numerous species from Sumatra and Java from the material collected by E. Jacobson he did not specify a type (holotype) for those species of which he had more than one specimen, and such species were therefore originally based on syntypic series. Most of them are the type-species of the very numerous monotypic Townsendian genera from Sumatra cited again later in the *Manual* (op. cit.). For each genus in the *Manual* Townsend cites a status for the primary type of the type-species, together with its sex and locality of origin, and uses the abbreviation "Ht" for holotype. In some instances the information given for the "Ht" could apply only to a single specimen of an original syntype series, and it is therefore certain which specimen Townsend was holding as the primary type; but in other instances the information given for the "Ht" could apply to any of two or more specimens conforming to the sex and locality cited so that there is no restriction to a single recognisable specimen. In the former situation there is a restriction of the name to only one specimen and in these instances there is a clear lectotype fixation by Townsend which must be accepted as valid; in the latter situation there is no restriction that can be held to fix a lectotype, and a lectotype designation is required. Thus throughout the present paper lectotypes have been treated as fixed by Townsend in the *Manual of Myiology* provided that the information there given could apply only to one syntype, but new lectotypes have been designated where Townsend's statements in the *Manual* do not provide a valid fixation; each case is briefly discussed in the text.

In many instances the original syntype series was divided, as for example when Townsend returned some material to Amsterdam but retained some for his own collection or the U.S. National Museum. Thus several museum collections contain original syntype specimens of several species which now have paralectotype status, following the fixation of lectotype specimens in the Amsterdam collection. In the lists that follow the names of the different type-depositories have been abbreviated as shown below:

BMNH	British Museum (Natural History), London
RMNH	Rijksmuseum van Natuurlijke Historie, Leiden
USNM	United States National Museum, Washington
ZMA	Zoölogisch Museum, Amsterdam

All the type-specimens in the Amsterdam collection here discussed have been labelled to show their correct type-status, and paralectotypes in the other collections have also been appropriately labelled.

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TYPE-MATERIAL OF J. C. H. DE MEIJERE

**Bucentes nigripalpis** de Meijere, 1924 : 223.

Lectotype ♂ [by present designation], JAVA : Pangrango, 3000 m, vi.1919 (D.v.L.) (ZMA).

Paralectotypes: 2 ♂, same data as lectotype (ZMA).

One of the three syntypes cited above bears the label “*Bucentes nigripalpis* n.sp.” in de Meijere’s writing, and it is this specimen that has been labelled and is here designated as lectotype. The initials of the collector’s name on the data labels are those of W. M. Docters van Leeuwen.

**Echinomyia angulata** de Meijere, 1924 : 221.

Lectotype ♂ [by present designation], JAVA : Pangrango, 3000 m, vii.1920 (D.v.L.) (ZMA).

This species was originally described from two male syntypes, but of these only the one recorded above and here designated as lectotype has been found. The ZMA collection contains a second male, but this has the data “Tjibodas [Java], 1500 m, vi.1921, D.v.L.” and does not conform with the published information on the original syntypes; it is considered not to be a syntype.

**Gymnosoma (Stylogymnosoma) ventricosum** de Meijere, 1917 : 245.

Holotype ♂, JAVA : Samarang, iii.1910 (E. JACOBSON) (ZMA).

The collector’s name, Jacobson, is not shown on the data labels attached to the holotype specimen, and this information is derived from de Meijere’s description.

**Parexorista papuana** de Meijere, 1906 : 87.

Holotype ♀, WEST IRIAN (ex Dutch New Guinea): B. Jamoer, 12.viii.1903 (—) (ZMA) (abdomen missing).

In the original publication de Meijere cited the type-locality as “Oberes Jamur-Gebiet”, but the data label attached to the holotype specimen reads “B. Jamoer”, meaning no doubt “Boven Jamoer”, and being the Dutch translation of “Oberes Jamur-Gebiet”.

**Pentatomophaga bicincta** de Meijere, 1917 : 247.

Holotype ♀, JAVA : [no other locality or date] (ZEHNTER) (ZMA).

The holotype specimen is accompanied by its puparium, which was also described by de Meijere in the original publication.

**Prosopaea appendiculata** de Meijere, 1910 : 110.

Holotype ♀, KRAKATAU : Lang Eiland, v.1908 (E. JACOBSON) (ZMA).

**Sturmia provecta** de Meijere, 1910 : 108.

Lectotype ♂ [by designation of Crosskey, 1966b : 108], KRAKATAU : v.1908 (E. JACOBSON) (ZMA).

Paralectotypes : 2 ♀, same data as lectotype (ZMA).

The three specimens cited above are the complete original syntype series from which *provecta* was described.

TYPE-MATERIAL OF C. H. T. TOWNSEND

**Acuphocera sumatrensis** Townsend, 1926 : 37.

Lectotype ♂ [by present designation], SUMATRA : Fort de Kock, 920 m, i.1922 (E. JACOBSON) (ZMA).

Paralectotypes : 1 ♂, same data as lectotype, except date 1925 (RMNH). 2 ♀, same data as lectotype, except date 1925 (ZMA). 1 ♂, 4 ♀, SUMATRA : Gunung Singgalang, Sumatra's Westkust, 1800 m, vii.1925 (E. JACOBSON) (♂ ♀ BMNH, ♀ ZMA, ♀ USNM, ♀ RMNH).

Townsend (1939a : 168) cited "Ht female" from Fort de Kock and in Amsterdam, but there is more than one female with this data and Townsend's statement is therefore not a valid fixation of lectotype. A lectotype is therefore here designated, and the male syntype from Fort de Kock in Amsterdam collection is chosen in preference to a female.

**Aphantorhaphopsis orientalis** Townsend, 1926 : 35.

Holotype ♀, SUMATRA : Fort de Kock, 920 m, 1924 (E. JACOBSON) (ZMA).

**Aphrimyobia simillima** Townsend, 1926 : 37.

Holotype ♀, SUMATRA : Fort de Kock, 920 m, 1924 (E. JACOBSON) (ZMA).

**Biomyopsis sumatrensis** Townsend, 1927 : 60.

Holotype ♀, SUMATRA : Baso, Sumatra's Westkust, 800 m, ii [publ. as iii]. 1926 (E. JACOBSON) (ZMA).

**Brachymeropsis sumatrensis** Townsend, 1926 : 36.

Lectotype ♀ [by present designation], SUMATRA : Gunung Singgalang, Sumatra's Westkust, 1800 m, vii.1925 (E. JACOBSON) (ZMA).

Paralectotypes : 1 ♂, same data as lectotype, except altitude 1600 m

(USNM). 1 ♂, same data as lectotype, except altitude 1600 m, and date viii. 1925 (ZMA) (abdomen missing).

Townsend (1939b : 212) cited "Ht male & At female from Fort de Kock, Sumatra, in Amsterdam", but this does not accord with the original publication in which no female syntype from Fort de Kock is mentioned. No syntype from Fort de Kock has been traced, and only one of the two original female syntypes has been located (from Gunung Singgalang and in Amsterdam). Two located male specimens, that are both clearly syntypes, have altitude data of "1600 m" although Townsend mentions only one male conforming to this data. It appears from this that the original description may contain errors in the recording of sex and data of the syntypes, and Townsend's (1939b) citation of "Ht male" from Fort de Kock is not therefore accepted as providing a valid lectotype fixation. The female specimen in Amsterdam collection from Gunung Singgalang is therefore here designated as lectotype (the male syntype in Amsterdam has not been selected as it lacks the abdomen).

The USNM collection contains a female specimen of *Brachymeropsis sumatrensis* from Sumatra with the data "Anai Kloof (Sumatra's Westkust), 500 m, 1926 E. Jacobson" but this is not an original syntype.

#### ***Calirrhoe fulvipes* Townsend, 1927 : 56.**

Lectotype ♀ [by present designation], SUMATRA : Fort de Kock, x.1913 (E. JACOBSON) (ZMA).

Paralectotype : 1 ♀ same data as lectotype, except date 1925 (USNM).

The paralectotype in the USNM collection may not be conspecific with the lectotype, as it has differently coloured parafrenal hair and abdomen and has only one *ad* seta on the mid tibia (Dr. Curtis Sabrosky, personal communication). It may actually be a specimen of *Calirrhoe malayana* Townsend (see below), assuming that *fulvipes* and *malayana* are distinct species. One of the three original female syntypes has not been traced.

#### ***Calirrhoe malayana* Townsend, 1926 : 25.**

Lectotype ♂ [by present designation], SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

Paralectotypes : 1 ♂, same data as lectotype (ZMA). 1 ♂, same data as lectotype, except date x.1913 (USNM).

The species was described from 5 ♂ and 3 ♀ syntypes, of which the females were later described by Townsend (1927 : 56) as *Calirrhoe fulvipes* (see above). Only three of the males have been traced. A female specimen later assigned to *malayana* by Townsend (1927 : 42) is in the Amsterdam collection and has the same data as the lectotype, but it is not an original syntype.

**Calotheresia sumatrensis** Townsend, 1926 : 29.

Lectotype ♀ [by fixation of Townsend, 1938 : 322], SUMATRA : Fort de Kock, xi.1913 (E. JACOBSON) (whereabouts not traced, see below).

Paralectotypes : 1 ♀, SUMATRA : Gunung Singgalang, Sumatra's Westkust, 1800 m, 1925 (E. JACOBSON) (ZMA).

This species was described from two female syntypes, one from Fort de Kock and the other from Gunung Singgalang; only the latter specimen (in Amsterdam) has been located. Unfortunately the missing female from Fort de Kock was subsequently cited by Townsend (1938 : 322) as "Ht female" and "Origin, Fort de Kock, Sumatra", who thereby provided a valid fixation of a lectotype. The whereabouts of this lectotype is unknown, and the Gunung Singgalang specimen is a paralectotype.

Townsend (1926 : 38—39), in an addendum, noted that *Eomyoceropsis sumatrensis*, described by him as a separate nominal species on the same page as *Calotheresia sumatrensis*, was actually the male of the latter.

**Calozenillia auronigra** Townsend, 1927 : 67.

Holotype ♀, SUMATRA : Tandjunggadang, Sumatra's Westkust, 1200 m, xii.1925 (E. JACOBSON) (ZMA).

**Carcelia albifacies** Townsend, 1927 : 64.

Holotype ♀, SUMATRA : Gunung Singgalang, Sumatra's Westkust, 1800 m, 1925 (E. JACOBSON) (ZMA).

**Carcelia aurata** Townsend, 1927 : 65.

Lectotype ♂ [by present designation], SUMATRA : Fort de Kock, 1925 (E. JACOBSON) (ZMA).

Neither of the two female syntypes mentioned by Townsend in the original publication has been located.

**Carcelia kockiana** Townsend, 1927 : 65.

Lectotype ♂ [by present designation], SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

Paralectotypes : 1 ♂, same data as lectotype (BMNH).

Neither of the two female syntypes mentioned by Townsend in the original publication has been located.

**Carcelia singgalangia** Townsend, 1927 : 65.

Holotype ♂, SUMATRA : Gunung Singgalang, Sumatra's Westkust, 1600 m, viii.1925 (E. JACOBSON) (ZMA).

***Carcelia sumatrana* Townsend, 1927 : 65.**

Holotype ♂, SUMATRA : Suban Ajam, vii.1916 (E. JACOBSON) (ZMA).

***Carcelia tjibodana* Townsend, 1927 : 65.**

Holotype ♂, JAVA : Tjibodas, ii.1916 (E. JACOBSON) (ZMA).

***Carceliopsis sumatrensis* Townsend, 1927 : 66.**

Lectotype ♂ [by present designation], SUMATRA : Fort de Kock, 920 m, xii.1920 (E. JACOBSON) (ZMA).

Paralectotypes : 1 ♂, same data as lectotype (ZMA).

Townsend (1941 : 143) cited "Ht male" from Fort de Kock, but as there are two original male syntypes from this locality this does not provide a valid lectotype fixation; a lectotype has been labelled and is here newly designated. The single female original syntype has not been located.

***Catacarcelia kockiana* Townsend, 1927 : 66.**

Lectotype ♀ [by present designation], SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

This species was described from two female syntypes, both from Fort de Kock. Townsend (1941 : 144) later cited "Ht female" from Fort de Kock, but did not label a specimen as such, and he did not therefore provide a valid fixation of a lectotype. A lectotype is therefore here designated. The second syntype (paralectotype) has not been located.

***Compilura sumatrensis* Townsend, 1926 : 33.**

Holotype ♂, SUMATRA : Air Njurus, Dempu, 1400 m, viii.1916 (E. JACOBSON) (ZMA).

***Dexiomimops longipes* Townsend, 1926 : 21.**

Holotype ♂, SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

The USNM collection contains a male specimen of *Dexiomimops longipes* that is not a type-specimen but has the data "Fort de Kock, Sumatra 920 m, 1926, E. Jacobson".

***Dolichocolon orientale* Townsend, 1927 : 73.**

Holotype ♂, SUMATRA : Anai Kloof, Sumatra's Westkust, 500 m, 1925 (E. JACOBSON) (ZMA).

**Dolichocoxys femoralis** Townsend, 1927 : 57.

Holotype ♂, SUMATRA : Tandjungadang, Sumatra's Westkust, 1200 m, ii.1926 (E. JACOBSON) (ZMA).

**Eodexiosoma sumatrense** Townsend, 1926 : 15.

Lectotype ♀ [by present designation], SUMATRA : Gunung Singgalang, Sumatra's Westkust, 1800 m, vii.1925 (E. JACOBSON) (ZMA).

Paralectotypes : 3 ♀, same data as lectotype (ZMA, BMNH, USNM).

This species was described from one male and five female syntypes, of which the four females cited above have been traced. Townsend (1938 : 279) cited "Ht female" from Gunung Singgalang, but since he did not label a specimen as such and there are more than one with the same data his citation does not provide a valid fixation of lectotype. A lectotype is therefore here newly designated. Townsend (1938 : 279) also mentioned a paratype specimen in Leiden, but no specimen of *E. sumatrense* is present in the collection of the Rijksmuseum van Natuurlijke Historie there.

**Eogymnophthalma orientalis** Townsend, 1926 : 35.

Lectotype ♂ [by fixation of Townsend, 1940 : 213], SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

Paralectotypes : 2 ♀, same data as lectotype (ZMA & USNM).

All three of the original syntypes have been located and are cited above. Townsend (1940 : 213) cited the single male syntype as "Ht" [= holotype], and this is acceptable as a valid fixation of a single specimen as lectotype. The ZMA collection contains a female specimen (without abdomen) that has identical data to the lectotype, but this is presumed not to be an original syntype as Townsend mentioned a total of only two females (the paralectotypes listed above).

**Eomyoceropsis longipennis** Townsend, 1926 : 29.

Lectotype ♂ [by fixation of Townsend, 1938 : 331], JAVA : Tjibodas, ii.1916 (E. JACOBSON) (USNM).

Paralectotypes: 1 ♂, SUMATRA : Gunung Singgalang, 1800 m, vii.1925 (E. JACOBSON) (ZMA).

This species was described only from the two male syntypes listed above. Townsend (1938 : 331) cited the Java specimens as "Ht", deposited in Washington, and the Sumatra specimen as "Pt", deposited in Amsterdam, and thus provided a valid fixation of the Javanese specimen as lectotype. This species is therefore exceptional among all those described by Townsend in the "Fauna sumatrensis" material because the primary type is located at the USNM in Washington and not at the ZM in Amsterdam.

**Eomyoceropsis sumatrensis** Townsend, 1926 : 29.

Holotype ♂, SUMATRA : Fort de Kock, xi.1913 (E. JACOBSON) (ZMA).

The data label of the holotype has the month date printed as "10" but



the zero has been struck through and apparently altered to a "1"; in agreement with Townsend's original publication the month date is here interpreted as November.

***Eoparachaeta orientalis* Townsend, 1927 : 70.**

Lectotype ♂ [by fixation of Townsend, 1941 : 78], SUMATRA : Air Njuruk, Dempu, 1400 m, viii.1916 (E. JACOBSON) (ZMA).

Paralectotypes : 2 ♀, SUMATRA : Gunung Singgalang, Sumatra's Westkust, 1800 m, 1925 (E. JACOBSON) (ZMA & USNM). 1 ♂, SUMATRA : Sungai Kumbang, ix.1915 (E. JACOBSON) (USNM).

All of the four original syntypes (2 ♂, 2 ♀) have been located and are listed above. Of these only one specimen (♂) is from Air Njuruk, and this specimen was subsequently cited by Townsend (1941 : 78) as "Ht male", "Origin, Air Njuruk" and "location Amsterdam"; Townsend thus provided a valid fixation of this specimen as lectotype.

***Eoparachaeta sturmioides* Townsend, 1927 : 71.**

Lectotype ♂ [by present designation], SUMATRA : Tandjunggadang, Sumatra's Westkust, 1800 m, 1926 (E. JACOBSON) (ZMA).

Paralectotypes : 1 ♂, same data as lectotype (ZMA). 1 ♂, same data as lectotype, except date xi.1925 (USNM). 2 ♀, SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA & USNM).

One of the four original male syntypes from Tandjunggadang has not been located.

***Eophyllophila elegans* Townsend, 1926 : 19.**

Lectotype ♂ [by present designation], SUMATRA : Sungai Kumbang, ix. 1915 (E. JACOBSON) (ZMA).

Paralectotypes : 2 ♂, same data as lectotype (ZMA & USNM).

This species was described from four male syntypes, all with the same data; one of these has not been traced. Townsend (1939b : 109) cited "Ht male" but this statement does not restrict the name to a single specimen and the citation is not a valid fixation of lectotype; at the same time he cited a "Pt" [= paratype] in Leiden, but there is no specimen of *E. elegans* in the Leiden collection.

***Epixorista episcopa* Townsend, 1927 : 62.**

Holotype ♀, SUMATRA : Fort de Kock, 920 m, 1926 (E. JACOBSON) (ZMA).

***Epixorista ocellaris* Townsend, 1927 : 62.**

Holotype ♀, SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

***Eristaliomyia nitidifrons* Townsend, 1926 : 38.**

Lectotype ♀ [by designation of Crosskey, 1967a : 103], SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

This species was described from two female syntypes with the same data (as above). Only the lectotype specimen here recorded has been located. Townsend (1939a : 38) cited, without labelling, a specimen as "Ht female", but since this did not restrict to a single recognisable specimen it was not a valid fixation of lectotype. The one available syntype has since been validly designated as lectotype by Crosskey (1967a).

***Euhyperecteina malayana* Townsend, 1926 : 34.**

Holotype ♀, SUMATRA : Gunung Singgalang, Sumatra's Westkust, 1800 m, vii.1925 (E. JACOBSON) (ZMA).

***Euthelairosona chaetopygiale* Townsend, 1926 : 33.**

Lectotype ♂ [by present designation], SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

Paralectotypes: 1 ♂, same data as lectotype (ZMA). 1 ♂, SUMATRA : Suban Ajam, vii.1916 (E. JACOBSON) (USNM).

Townsend (1939b : 131) cited "Ht male from Fort de Kock, Sumatra, in Amsterdam" but this statement alone, as there were three original male syntypes from this locality, does not provide a valid fixation of lectotype. A lectotype is therefore here newly designated and labelled. Four of the total of seven original male syntypes have not been located. The USNM collection contains the male and female specimens of *E. chaetopygiale* recorded by Townsend (1927 : 58) in the later paper and having the following data: ♂, SUMATRA : Anai Kloof, 500 m, 1926 (E. JACOBSON) and ♀, SUMATRA : Fort de Kock, 920 m, 1926 (E. JACOBSON); these specimens are not type-material, although each bears one of Townsend's red square printed type labels.

***Frontiniellopsis sumatrensis* Townsend, 1927 : 61.**

Holotype ♂, SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

***Gaediogonia jacobsoni* Townsend, 1927 : 71.**

Holotype ♂, SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

***Isosturmia intermedia* Townsend, 1927 : 68.**

Holotype ♂, SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

***Isosturmia inversa* Townsend, 1927 : 67.**

Holotype ♂, SUMATRA : Tandjunggadang, Sumatra's Westkust, 1000 m, 1926 (E. JACOBSON) (ZMA).

***Kurintjimyia jacobsoni* Townsend, 1926 : 38.**

Holotype ♀, SUMATRA : Piek van Kurintji, viii.1915 (E. JACOBSON) (ZMA).

***Leiosiopsis aristalis* Townsend, 1927 : 62.**

Holotype ♀, SUMATRA : Fort de Kock, 920 m, 1926 (E. JACOBSON) (ZMA).

***Lophosiocoptera lophosioides* Townsend, 1927 : 59.**

Holotype ♂, SUMATRA : Fort de Kock, 920 m, 1926 (E. JACOBSON) (ZMA).

***Macrozenillia aurescens* Townsend, 1927 : 68.**

Holotype ♂, SUMATRA : Tandjunggadang, Sumatra's Westkust, 1000 m, x.1925 (E. JACOBSON) (ZMA).

***Malayocoptera munita* Townsend, 1926 : 31.**

Lectotype ♂ [by fixation of Townsend, 1938 : 134], SUMATRA : Sungai Kumbang, ix.1915 (E. JACOBSON) (ZMA).

Paralectotypes : 1 ♀, same data as lectotype (ZMA).

This species was described from the two syntypes listed above. Townsend (1938 : 134) later cited the types as "Ht male, At female" and thus provided a valid fixation of the male syntype as lectotype.

***Malayodinera montana* Townsend, 1926 : 27.**

Holotype ♀, SUMATRA : Piek van Kurintji, viii.1915 (E. JACOBSON) (ZMA).

***Malayodoria fumipennis* Townsend, 1926 : 35.**

Holotype ♂, SUMATRA : Fort de Kock, x.1913 (E. JACOBSON) (ZMA).

***Malayomedina petiolata* Townsend, 1926 : 20.**

Holotype ♂, SUMATRA : Fort de Kock, 920 m, xii.1920 (E. JACOBSON) (ZMA).

***Medina fumipennis* Townsend, 1926 : 20.**

Holotype ♂, SUMATRA : Air Njurus, Dempu, 1400 m, viii.1916 (E. JACOBSON) (ZMA).

***Medinodexia fulviventris* Townsend, 1927 : 57.**

Lectotype ♂ [by present designation], SUMATRA : Tandjunggadang, Sumatra's Westkust, 1200 m, ii.1926 (E. JACOBSON) (ZMA).

Paralectotypes : 1 ♂, same data as lectotype (USNM).

This species was described from the two male syntypes, with the identical data, cited above. Townsend (1939b : 116) listed "Ht male", but this statement alone, as there is more than one male with the same data, does not provide a valid fixation of lectotype. A lectotype is therefore here designated and labelled.

***Minthocoptera malaya* Townsend, 1926 : 32.**

Holotype ♀, SUMATRA [no other data] (ZMA).

***Mollia malayana* Townsend, 1926 : 20.**

Holotype ♂, SUMATRA : Gunung Singgalang, Sumatra's Westkust, 1800 m, vii.1925 (E. JACOBSON) (ZMA).

***Myobiomima longimana* Townsend, 1926 : 22.**

Lectotype ♂ [by present designation], SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA) (abdomen missing).

Paralectotypes: 1 ♂, SUMATRA : Tandjunggadang, Sumatra's Westkust, 1000 m, x.1925 (E. JACOBSON) (USNM).

This species was described from four male syntypes, three from Fort de Kock and one from Tandjunggadang: two of these from the Fort de Kock locality have not been located. Townsend (1939b : 228) cited "Ht male - Origin, Fort de Kock", but this statement alone, as there is more than one specimen fitting this data, does not provide a valid fixation of lectotype. A lectotype is therefore here newly designated. Townsend (1939b) also cited a "Pt" [= paratype] in Leiden, but no such specimen is present in the Leiden collection.

***Oxyrutilia jacobsoni* Townsend, 1926 : 31.**

Holotype ♀, SUMATRA : Sungai Kumbang, ix.1915 (E. JACOBSON) (ZMA).

***Philippodexia sumatrensis* Townsend, 1926 : 30.**

Holotype ♂, SUMATRA : Muara Sako, x.1915 (E. JACOBSON) (ZMA).

**Philippolophosia sumatrensis** Townsend, 1927 : 59.

Holotype ♀, SUMATRA : Tandjunggadang, Sumatra's Westkust, 1000 m, 1926 (E. JACOBSON) (ZMA).

**Phoriniophylax phoeda** Townsend, 1927 : 63.

Lectotype ♀ [by present designation], SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

This species was described from two female syntypes with the same data, of which only the specimen here designated as lectotype has been located. Townsend (1941 : 311) referred to the "Ht female", but this statement, as there were two original females with identical data, does not alone provide valid fixation of a lectotype. Crosskey (1963 : 10) following Townsend, incorrectly referred to the specimen in Amsterdam collection as holotype, but lectotype is the correct status for this specimen following the present designation from the two original syntypes.

**Phorocerosoma forte** Townsend, 1927 : 61.

Holotype ♂, SUMATRA : Fort de Kock, 920 m, 1926 (E. JACOBSON) (ZMA)

**Phrynactia petiolata** Townsend, 1926 : 34.

Holotype ♂, SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

**Phryxosturmia jacobsoni** Townsend, 1927 : 68.

Lectotype ♂ [by fixation of Townsend, 1941 : 120], SUMATRA : Haran Kloof, xi. 1913 (E. JACOBSON) (ZMA).

Paralectotypes : 1 ♂, SUMATRA : Fort de Kock, 920 m, 1924 (E. JACOBSON) (USNM).

This species was described from three male syntypes, the two listed above from Haran Kloof and Fort de Kock, and a third specimen (not located) from Gunung Singgalang, 1000 m, vii.1925. Townsend (1941 : 120) cited the Haran Kloof specimen as "Ht male", and thus provided a valid fixation of lectotype; this earlier fixation was overlooked by Crosskey (1966b : 108), whose later designation of lectotype for *Phryxosturmia jacobsoni* (made without citation of data) is invalid.

**Promintho sungayana** Townsend, 1926 : 24.

Holotype ♀, SUMATRA : Sungai Kumbang, ix.1915 (E. JACOBSON) (ZMA).

**Prosophia kloofia** Townsend, 1927 : 58.

Holotype ♂, SUMATRA : Anai Kloof, Sumatra's Westkust, 500 m, 1926 (E. JACOBSON) (ZMA).

**Prosopofrontina pulchra** Townsend, 1926 : 34.

Holotype ♀, SUMATRA : Gunung Singgalang, Sumatra's Westkust, 1800 m, 1925 (E. JACOBSON) (ZMA).

**Prosturmia profana** Townsend, 1927 : 69.

Lectotype ♂ [by present designation], SUMATRA : Fort de Kock, 920 m, 1924 (E. JACOBSON) (ZMA)

Paralectotypes : 1 ♂, same data as lectotype (USNM).

This species was described from four male syntypes with the same Fort de Kock data, but only the two of these listed above have been located. Townsend (1941 : 125) referred to an "Ht male", but this statement does not restrict to a single recognisable specimen and does not constitute valid fixation of a lectotype; a labelled specimen is here newly designated as lectotype. In an earlier paper Crosskey (1967b : 58) mentioned that two syntypes of *profana* were present in the USNM collection but none in the Zoölogisch Museum, Amsterdam: this has now been corrected by the transfer of one of the syntypes (the lectotype here designated) from the USNM collection to the ZMA collection, so that the lectotype may now be found in its correct depository.

**Prosturmia subanajama** Townsend, 1927 : 69.

Lectotype ♂ [by designation of Crosskey, 1967b : 55], SUMATRA : Suban Ajam, vii.1916 (E. JACOBSON) (ZMA).

Paralectotypes: 1 ♂, same data as lectotype (USNM).

This species was described only from the two syntypes listed above.

**Pseudokea sumatrana** Townsend, 1927 : 69.

Holotype ♂, SUMATRA : Gunung Singgalang, Sumatra's Westkust, 1600 m, viii.1925 (E. JACOBSON) (ZMA).

**Senexorista sumatrana** Townsend, 1927 : 63.

Holotype ♂, SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

**Servilliodes sumatrensis** Townsend, 1926 : 37.

Lectotype ♂ [by present designation], SUMATRA : Gunung Singgalang, Sumatra's Westkust, 1800 m, vii.1925 (E. JACOBSON) (ZMA).

Paralectotypes : 28 ♂, 13 ♀, same data as lectotype, except most without month date (12 ♂, 5 ♀ ZMA; 14 ♂, 6 ♀ USNM; 1 ♂, 1 ♀, RMNH). 1 ♂, 1 ♀, RMNH).

Townsend recorded 45 male and 22 female syntypes in the original publication, but only the 29 male and 13 female specimens listed above have been located. The citation of "Ht male" for this species by Townsend (1939a : 62) is not valid as a lectotype fixation, as it does not restrict the name to a single recognisable specimen; a lectotype is therefore here designated.

**Sisyropa sumatrana** Townsend, 1927 : 66.

Holotype ♂, SUMATRA : Suban Ajam, vii.1916 (E. JACOBSON) (ZMA).

**Stenodexiopsis sumatrensis** Townsend, 1926 : 18.

Holotype ♂, SUMATRA : Gunung Singgalang, Sumatra's Westkust, 1800 m, 1925 (E. JACOBSON) (ZMA).

**Sumatrodexia brevirostris** Townsend, 1926 : 27.

Holotype ♂, SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

**Sumatrodoria summaria** Townsend, 1927 : 64.

Lectotype ♀ [by fixation of Townsend, 1941 : 201], SUMATRA : Fort de Kock, 920 m, [? 1925 or 1926] (E. JACOBSON) (whereabouts not traced, possibly lost).

Paralectotypes : 1 ♂, SUMATRA : Fort de Kock, 920 m, 1926 (E. JACOBSON) (ZMA); 1 ♂, same data, except date 1925 (USNM).

This species was described from one female and four male syntypes from Fort de Kock, some with year date 1925 and others 1926; only two syntypes, both male, have been located, one in USNM collection with date 1925 and one in ZMA collection with date 1926. Unfortunately (as pointed out elsewhere by Crosskey, 1967b : 74) the single original female syntype was cited by Townsend (1941 : 201) as "Ht female" and the name *summaria* was thereby nomenclatorally restricted to the female syntype which cannot now be traced; Townsend's citation of "Ht female" however constitutes valid fixation of a lectotype for nomenclatorial purposes, although it is unfortunate from the taxonomic viewpoint since it is the male sex only that has reliable characters for distinguishing the species of *Palexorista* Townsend (the genus to which *summaria* is currently assigned: Crosskey, 1967b).

**Sumatrosturmia orbitalis** Townsend, 1927 : 70.

Lectotype ♂ [by present designation], SUMATRA : Tandjunggadang, Sumatra's Westkust, 1000 m, 1926 (E. JACOBSON) (ZMA).

Paralectotypes: 1 ♂, same data as lectotype, except data includes month date ii (ZMA). 1 ♂, same data as lectotype, except date xii.1925 (BMNH). 1

♂, SUMATRA : Anai Kloof, 500 m, 1926 (E. JACOBSON) (USNM). 1 ♂, SUMATRA : Fort de Kock, 1925 (E. JACOBSON) (USNM).

This species was described from six male syntypes, of which four were from the locality Tandjunggadang; one of the syntypes from this locality has not been located. The citation of "Ht male - Origin, Tandjunggadang, Sumatra" by Townsend (1941 : 132) is not valid as a lectotype fixation because there were four males from this locality and no recognisable restriction to one specimen; a lectotype is therefore here designated.

**Sumatrotachina facialis** Townsend, 1927 : 60.

Holotype ♂, SUMATRA : Tandjunggadang, Sumatra's Westkust, 1000 m, iv.1926 (E. JACOBSON) (ZMA).

**Thelaira sumatrana** Townsend, 1927 : 58.

Lectotype ♂ [by present designation], SUMATRA : Haran Kloof, Sumatra's Westkust, 550 m, vi.1926 (E. JACOBSON) (ZMA).

The original type-material of *Thelaira sumatrana* consisted of two syntypes, the male from Haran Kloof here designated as lectotype and a female from Anai Kloof, 500 m, 1926. The female syntype (paralectotype) has not been located.

**Thelairoleskia bicolor** Townsend, 1926 : 23.

Holotype ♀, SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

**Tylodexia tenuis** Townsend, 1926 : 28.

Lectotype ♂ [by fixation of Townsend, 1938 : 385], SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

Paralectotypes : 1 ♀, SUMATRA : Air Njuruk, Dempu, 1400 m, vi.1916 (E. JACOBSON) (ZMA), 1 ♀, same data as lectotype (ZMA).

The original type-material consisted of one male and five female syntypes from three localities, Air Njuruk, Gunung Singgalang and Fort de Kock, but Townsend did not make it clear in the publication how many females came from each locality or which locality applied to the male specimen. The later citation by Townsend (1938 : 385) of "Ht male, At female - Origin, Air Njuruk Dempu and Fort de Kock, Sumatra" reads as though the male was from Air Njuruk. However, the one male syntype or apparent syntype located (in ZMA) has Townsend's type-label and is from Fort de Kock: nevertheless this specimen is here accepted as lectotype by fixation of Townsend, since he cited the one male as "Ht" and there is no evidence at present that any male specimen was ever available from the Air Njuruk locality. Only two of the original five females have been located, and none from the Gunung Singgalang locality cited in the original publication.



**Ugimya jacobsoni** Townsend, 1927 : 70.

Holotype ♂, SUMATRA : Tandjunggadang, Sumatra's Westkust, 1000 m, x.1925 (E. JACOBSON) (ZMA).

**Uromedina caudata** Townsend, 1926 : 19.

Holotype ♂, SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

The collector's name is missing from the holotype data but is presumed to be E. Jacobson, as for all the other Fort de Kock type-material described by Townsend.

**Xanthoerigone oralis** Townsend, 1927 : 72.

Lectotype ♂ [by present designation], SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

Paralectotypes: 3 ♂, SUMATRA : Gunung Singgalang, Sumatra's Westkust, 1800 m, 1925 (E. JACOBSON) (2 ♂ USNM; 1 ♂, without abdomen, ZMA).

All of the four original male syntypes have been located and are listed above. The citation of "Ht male - Origin, Gunung Singgalang" by Townsend (1939a : 251), does not provide a valid fixation of lectotype since there is no means of knowing which of three specimens from this locality is meant; a lectotype is therefore here designated.

**Xanthopteromyia tegulata** Townsend, 1926 : 25.

Holotype ♂, SUMATRA : Fort de Kock, 920 m, 1925 (E. JACOBSON) (ZMA).

**Zygocarcelia cruciata** Townsend, 1927 : 64.

Holotype ♂, SUMATRA : Air Njurus, Dempu, 1400 m, vi.1916 (E. JACOBSON) (ZMA) (head missing).

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**Crossocosmia curvipalpis** van der Wulp, 1893 : 162.

Lectotype ♂ [by designation of Crosskey, 1967b : 68], JAVA : [no other locality or date] (PIEPERS) (ZMA).

This species was described from three syntypes, probably all male (see Crosskey, 1967b : 68); only the single male already designated as lectotype has been traced. The ZMA collection contains a female specimen identified by van der Wulp as *curvipalpis* but it is not an original syntype and is incorrectly associated with the male lectotype.

**Crossocosmia discreta** van der Wulp, 1893 : 164.

Lectotype ♂ [by designation of Crosskey, 1967b : 68], JAVA : [no other locality or date] (PIEPERS) (ZMA).

Paralectotypes: 1 ♀, same data as lectotype (ZMA).

The two specimens cited above are the complete original syntype series from which *discreta* was described.

**Diglossocera bifida** van der Wulp, 1895 : 52.

Holotype ♂, JAVA : [no other locality or date] (PIEPERS) (ZMA).

**Gymnostylia javana** van der Wulp, 1893 : 181.

Holotype ♂, JAVA : [no other locality or date] (PIEPERS) (ZMA).

**Leiosia flavisquama** van der Wulp, 1893 : 186.

Lectotype ♂ [by present designation], JAVA : [no other locality or date] (PIEPERS) (ZMA).

Paralectotypes: 1 ♀, same data as lectotype (ZMA).

This species was described from two males and a female, but only the female and one of the male syntypes are present in ZMA collection; the available male has been labelled and is here designated as lectotype.

**Leptoda elegans** van der Wulp, 1891 : 207.

Lectotype ♀ [by designation of Crosskey, 1967a : 104], JAVA : [no other locality or date] (LUCASSEN) (ZMA).

This species was described from two male syntypes, the one from Kemanglen collected by Lucassen and already designated as lectotype by Crosskey (1967a), and a second male from Java collected by Piepers: the latter syntype has not been located and is apparently lost.

**Masicera linearifrons** van der Wulp, 1893 : 166.

Lectotype ♀ [by designation of Crosskey, 1967a : 104], JAVA : [no other locality or date] (PIEPERS) (ZMA).

Paralectotypes: 2 ♂, same data as lectotype (ZMA).

The three specimens cited above are the complete original syntype series from which *linearifrons* was described. The female syntype was selected as lectotype by Crosskey (1967a) in preference to a male because it shows an exceptional diagnostic feature in the elongate conical fifth abdominal tergite.

**Parexorista corvinoides** van der Wulp, 1893 : 170.

Lectotype ♂ [by designation of Crosskey, 1967a : 104], JAVA : [no other locality or date] (PIEPERS) (ZMA).

Paralectotypes: 1 ♀, same data as lectotype (ZMA).

The two specimens cited above are the complete original syntype series from which *corvinoides* was described.

**Parexorista curvipes** van der Wulp, 1893 : 172.

Holotype ♂, JAVA : [no other locality or date] (PIEPERS) (ZMA).

**Parexorista gentilis** van der Wulp, 1893 : 174.

Lectotype ♂ [by present designation], JAVA : [no other locality or date] (PIEPERS) (ZMA).

Paralectotypes: 1 ♀, same data as lectotype (ZMA).

This species was described from two male and two female specimens, all cited by van der Wulp as "Java (Piepers)". Only the one male and one female cited above are in the ZMA collection, of which the male syntype is here designated as lectotype. The remaining two syntypes have not been traced and are probably lost. In addition to the "Java Piepers" label the lectotype bears a label with the number "4373" in faded ink.

**Parexorista iridipennis** van der Wulp, 1893 : 176.

Lectotype ♂ [by designation of Crosskey, 1967a : 105], JAVA : [no other locality or date] (PIEPERS) (ZMA).

Paralectotypes: 2 ♂, same data as lectotype (ZMA & BMNH).

The three specimens cited above are the complete original syntype series from which *iridipennis* was described.

**Parexorista laeviventris** van der Wulp, 1893 : 173.

Lectotype ♂ [by designation of Crosskey, 1966a : 674], JAVA : [no other locality or date] (PIEPERS) (ZMA).

Paralectotypes: 1 ♂, same data as lectotype (ZMA).

The two specimens cited above are the complete original syntype series from which *laeviventris* was described. Crosskey (1966a), when preparing an earlier paper in which this was cited, was informed that only one specimen was present in the ZMA collection and this was stated in this earlier paper; it can now be confirmed, however, that the second original male syntype (paralectotype) is in fact present in the collection with the lectotype, so that none of the type-material is missing.

**Parexorista modicella** van der Wulp, 1893 : 178.

Lectotype ♂ [by designation of Crosskey, 1967a : 105], JAVA : [no other locality or date] (PIEPERS) (ZMA).

Paralectotypes: 4 ♀, same data as lectotype (ZMA & BMNH). 2 ♂, same data as lectotype (BMNH).

In addition to specimens mentioned above the ZMA collection contains four male specimens identified by van der Wulp as *modicella* and apparently forming part of the original syntypic series, but for reasons already given elsewhere (Crosskey, 1967a) these specimens are not considered to be true syntypes. It is not clear from the original description how many specimens van der Wulp had before him as he did not specify this exactly, merely using the phrase "Een aantal exemplaren van beide sexen, Java (Piepers)".

**Parexorista rubeola** van der Wulp, 1893 : 168.

Holotype ♀, JAVA : [no other locality or date] (PIEPERS) (ZMA).

**Phorocera degeerioides** van der Wulp, 1893 : 179.

Holotype ♂, JAVA : Buitenzorg, [no date] (PIEPERS) (ZMA).

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Dr. R. W. CROSSKEY

Commonwealth Institute of Entomology

c/o British Museum (Natural History)

Cromwell Road

London S.W.7 — England