

TYPES OF FLATIDAE (HOMOPTERA) VIII.
LECTOTYPE DESIGNATIONS AND TAXONOMIC NOTES
ON SPECIES IN THE MUSEUM OF VICTORIA

BY JOHN T. MEDLER

Honorary Associate, Bernice P. Bishop Museum, Honolulu, Hawaii, U.S.A.

Abstract

Medler, J.T., 1986. Types of Flatidae (Homoptera) VIII. Lectotype designations and taxonomic notes on species in the Museum of Victoria. *Mem. Mus. Vict.* 47: 207-211.

Flatidae in the Museum of Victoria purchased from Francis Walker during 1861-1874 were examined. Syntypes of 12 species described by Walker were found, of which 10 species were based on specimens collected by A. R. Wallace during his travels in the Indo-Malaysian Region. Lectotype and paralectotype designation are made. The genitalia of male lectotypes are illustrated, namely: *Nephesa chlorospila* (Colgar), *Nephesa deducta* (Idume), and *Poeciloptera iudocillis* (*Flata ferrugata* Fabricius). A list of the remaining specimens under the generic and specific names used by Walker, with an indication of their present nomenclature, is provided.

Introduction

Specimens of Flatidae in the Museum of Victoria were examined in connection with my research on this family in South-east Asia. I inquired about the specimens after learning from Horn and Kahle (1936) that there was a Francis Walker collection in the Museum of Victoria (formerly National Museum of Victoria).

Certain species described by Walker (1857a, 1857b, 1870) were of considerable importance to my research as they were based on the collections of Alfred Wallace made during his travels in the Indo-Malaysian Region. The type specimens of Walker were not seen by Melichar (1901, 1902) when he wrote his monographic revision of the family. Therefore, it has been necessary to study the Walker and Melichar types to correct misidentifications and synonymies that were made by Melichar.

I especially needed to examine all available specimens of Walker, because in some instances his types were not found in the British Museum (Natural History) collection, or specimens labelled as types did not agree with the original publications. A search for Walker types of Flatidae at the Oxford Museum was not productive. My anticipation

that the Walker collection in the Museum of Victoria would be of interest was realized when examination of the specimens revealed the presence of the types reported upon in this article.

The Museum of Victoria collection contains authentic Wallace specimens as evidenced by Walker's handwritten determination and locality labels. Their authenticity as syntypes was verified by checking citations in the original descriptions and making comparisons with data on other syntypes in the British Museum.

The history of the acquisition of Walker material by the Museum of Victoria has been reviewed recently by K. L. Walker (1985). The archives showed that the specimens were purchased from Francis Walker during the period 1861-1874 by Professor Frederick McCoy, first director of the Museum. Also, according to the archives, Australian insects were sent to Walker for identification. Any flatids that may have been represented in this exchange are probably lost, as such specimens have not been found in the Museum of Victoria nor in the British Museum (Natural History).

To preserve the historical status of the labels associated with each specimen, the data are recorded precisely in the following format:

type designation, sex, NMV registration—and numbers (1), (2), (3), etc., indicating the sequence of original labels on the pin from top to bottom. A slash (/) separates the printed or written lines on each label. An exact reproduction of these data is given in the list of types that follows. Lastly, a red label with my hand-printed lectotype or paralectotype designation has been attached to each specimen.

As most species of Flatidae must be identified with accuracy by using diagnostic characters of the male genitalia, male specimens were dissected and the genitalia illustrated whenever possible. The dissected male was designated as the lectotype when syntypes existed.

Walker types

The Walker types are listed alphabetically by species, with the original generic determination given in square brackets before the currently accepted genus name. Following each lectotype or paralectotype designation there is a brief comment on the taxonomic status and present disposition of the species.

acutipennis Walker, 1857a: 85, [*Cromna*]
CROMNA

Lectotype ♀ (T-8108)–(1) Mal/ca (2) Wallace (3) *Cromna/acutipennis*/Sarawak.

The left tegmen is missing. The lectotype appears to be the only survivor of original material; a search in the British Museum revealed no recognizable specimen. The discovery of the lectotype was important because *Cromna* has been misunderstood since its establishment by Walker as a monobasic genus. Subsequently, 11 species of *Cromna* were described by Walker (1851, 1858a, 1858b, 1862, 1870), one species each by Costa (1864) and Montrouzier (1861), and four species by Melichar (1902). These 17 species were distributed among seven genera by Metcalf (1957). *Cromna acutipennis* is superficially similar to certain species of *Lawana* in tegmina shape and venation. Both genera have two lateral spines on the metatibiae. Along with other characters *Cromna* may be distinguished by its acutely pointed head, whereas that of *Lawana* is obtusely conical.

albescens Walker, 1870: 177, [*Nephesa*]
SEPHENA

Paralectotype ♀ (T-8109)–(1) M (round label) (2) Mys/Wallace (3) *Nephesa/albescens*/Mysol.

The lectotype female from New Guinea is in the British Museum. The species was assigned by Distant (1910) to the genus *Sephesa*.

amata Walker, 1870: 175, [*Nephesa*]
PARATELLA

Paralectotype ♀ (T-8110)–(1) Wag. (round label) (2) Wallace (3) *Nephesa/amata*/Waigiou.

The lectotype female and a paralectotype (without abdomen) each from Waigiou are in the British Museum. Distant (1910) assigned the species to *Paratella*.

chlorospila Walker, 1870: 173, [*Nephesa*]
COLGAR

Lectotype ♂ (T-8111)–(1) N (round label) (2) N. Gui/Wallace (3) *Nephesa/chlorospila*/N. Guinea. (Dissected)

The lectotype genitalia are illustrated (Fig. 1). I have designated this specimen as the lectotype to stabilize the identity of a common and widespread species of *Colgar* in New Guinea. A syntype male in the British Museum from Mysol is a closely related species. Melichar (1902) intuitively associated this species with *Colgar* (as *Cromna* sensu Melichar). Distant (1910) erroneously assigned *chlorospila* to *Euphanta*, and this error was perpetuated by Metcalf (1957).

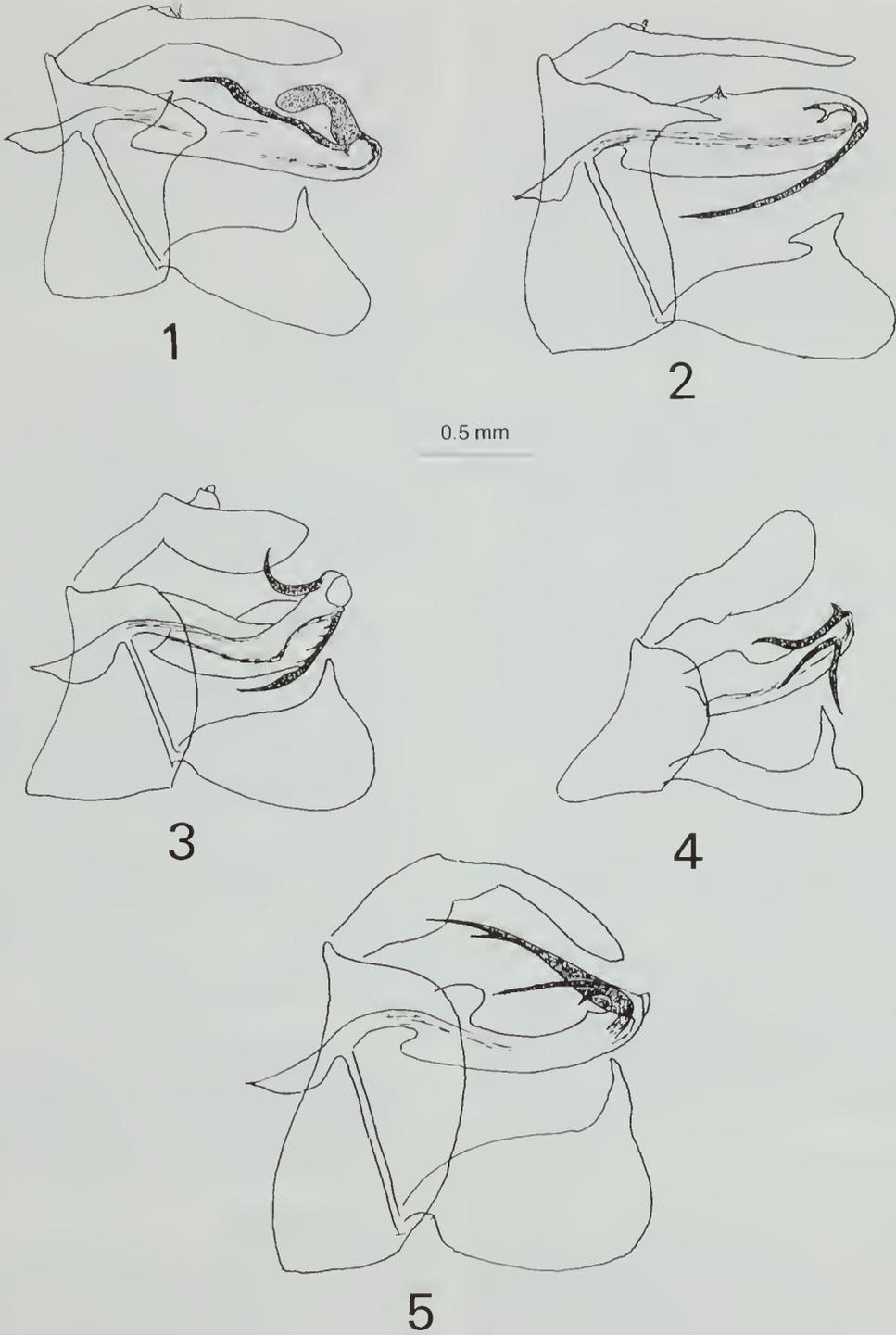
decolor Walker, 1870: 175, [*Nephesa*]
PARATELLA

Paralectotype ♀ (T-8112)–(1) Wag (round label) (2) Wallace (3) *Nephesa/decolor*/Waigiou.

Paralectotype ♀ (T-8113) - (1) M (round label) (2) Mys/Wallace (3) *Nephesa/decolor*/Mysol.

The lectotype male from Mysol is in the British Museum. The species was transferred to *Paratella* by Distant (1910).

deducta Walker, 1857b: 161, [*Nephesa*]
IDUME



Figures 1-5. Left lateral view of male genitalia. 1, *Nephesa chlorospila* Walker. 2, *Neomelicharia cruentata* (Fabricius). 3, *Nephesa deducta* Walker. 4, *Flatoides subrufescens* Walker. 5, *Poeciloptera indocilis* Walker.

Lectotype ♂ (T-8114)–(1) SAR (round label) (2) Wallace (3) *Nephesa/deducta*/Borneo. (Dissected)

The lectotype genitalia are illustrated (Fig. 3). Two paralectotype females from Sarawak are in the British Museum. The genitalia shown are the same as that of the lectotype of *Idume plicata* Melichar (1902). The genitalia figured by Ghauri (1973) are the same also. The presence of one metatibial spine is a distinctive character separating *Idume* from superficially similar species of *Melicharia* with two spines.

hastifera Walker, 1870: 180, [*Colobesthes*] **NEOCROMNA**, new combination

Lectotype ♀ (T-8115)–(1) M (round label) (2) Mys/Wallace (3) *Colobesthes/hastifera*/Mysol.

The lectotype may be the only surviving specimen from original material; a search in the British Museum revealed nothing recognisable. Two females in the Budapest Museum identified as *Colgar hastifera* by Melichar (1902) are the same as the lectotype. The species was not recognised by Distant (1910) when he erected the genus *Necromna*.

helena Walker, 1858: 110, [*Poeciloptera*] **POECILOFLATA**

Paralectotype ♀ (T-8116)–(1) Celebes/Pfeiffer (2) *Poeciloptera/helena*/Celebes.

The lectotype female from Celebes is in the British Museum. The species was listed by Metcalf (1957) as a junior synonym of *Poeciloflata viridiana* Donovan. Considerable variation in colour and markings is exhibited by this species but a study of the male genitalia of the variants showed no morphological differences.

indocilus Walker, 1858: 55, [*Poeciloptera*] **FLATA**

Lectotype ♂ (T-8117)–(1) Ind (2) *Poeciloptera/indocilus*/Hindustan. (Dissected)

A female was cited in the original description, but a search in the British Museum produced no specimen that would serve as a syntype. The genitalia are illustrated (Fig. 5). This species was listed by Metcalf (1957) as a junior synonym of *Flata ferrugata* Fabricius.

quadriguttata Walker, 1870: 179, [*Flata*] **NEODAKSHA**

Paralectotype (no abdomen) (T-8118)–(1) N (round label) (2) N. Gui/Wallace (3) *Flata/quadriguttata*/N. Guinea.

The lectotype, also without abdomen, is in the British Museum. This species is the monobasic type of the genus *Neodaksha* Distant.

rufilinea Walker, 1870: 174 [*Nephesa*] **PAPUANELLA**

Paralectotype ♀ (T-8119)–(1) M (round label) (2) Mys/Wallace (3) *Nephesa/rufilinea*/Mysol.

The lectotype female from Mysol is in the British Museum. This species was placed in *Sepheua* by Melichar (1902), but properly belongs in *Papuanella* Distant, a genus closely related to *Sepheua* auctorum.

subrufescens Walker, 1870: 141, [*Flatoides*] **UXANTIS**

Paralectotype ♂ (T-8120)–(1) M (round label) (2) Morty/Wallace (3) *Flatoides/subrufescens*/Morty. (Dissected)

Paralectotype ♀ (T-8121)–(1) M (round label) (2) Mys/Wallace (3) *Flatoides/subrufescens*/Mysol.

The genitalia are illustrated (Fig. 4). The characters are the same as those of the lectotype in the Stockholm Museum. A paralectotype female from New Guinea is in the British Museum. The species was assigned to *Uxantis* Stål by Melichar (1902).

Additional Walker specimens

Specimens provided by Walker are listed under original generic and specific names. Present nomenclature is given in parentheses.

COLOBESTHES

falcata, (*Colobesthes falcata* (Guerin-Meneville, 1834)). ♂–Sumatra, Wallace coll.

sumifera (unpublished name). ♀–Sumatra, Wallace coll. This specimen has tegmina with white waxy deposits on the dull green membrane. I consider the specimen to be a variant of *Colobesthes falcata* (G-M).

FLATA

aurora, (*Cenestra aurora* (Guerin-Meneville, 1834)). ♀—Java.

flaccida, (*Flatida flaccida* (Walker, 1858)). No abdomen—Malacca.

marginella, (*Flatida marginella* (Olivier, 1791)). ♂—Hindustan.

tenella, (*Cerynia tenella* (Walker, 1851)). No abdomen—Sylhet.

tricolor, (*Flatida tricolor* (White, 1846)). ♀—Sylhet.

NEPHESA

marginella, (*Salurnis dulitana* Lallemand, 1939). ♀—Sarawak, Wallace coll.

rubrosparsa, (unpublished name). 1 ♂, 2 ♀—Ceram, Gilolo, Wallace coll. The male from Ceram was dissected and the genitalia illustrated (Fig. 2). The genitalia are the same as in *Neomelicharia cruentata* (Fabricius, 1803).

POECILOPTERA

candida, (*Lawana candida* (Fabricius, 1798)). ♂—Java.

circulata, (*Bythopsyrna circulata* (Guerin-Meneville, 1844)). ♀—Sumatra, Wallace coll.

maculata, (*Copsyrna maculata* (Guerin-Meneville, 1829)). ♀—Sarawak, Wallace coll.

obscura, (*Bythopsyrna tineoides* (Olivier, 1791)). ♀—Sarawak, Wallace coll.

truncata, (*Flata ferrugata* Fabricius, 1803). ♀—Hindustan.

Acknowledgment

The research was made possible by the help of Dr Arturs Neboiss, Curator of Entomology, Museum of Victoria, to whom I express grateful appreciation.

References

- Costa, A., 1864. Descrizione de taluni insetti stranieri all'Europa. *Annali Mus. zool. Napoli* 2: 139-51, pl. 1.
- Distant, W.L., 1910. Rhynchota Malayana. Part III. *Rec. Ind. Mus.* 5: 313-38, pls. 21, 22.
- Ghauri, M.S.K., 1973. Taxonomic notes on a collection of Fulgoroidea from tea in southern India. *Bull. ent. Res.* 62: 541-4.
- Horn, W. and Kahle I., 1936. *Über entomologische Sammlungen*. Entomologische Beihefte aus Berlin-Dahlem. Vol. 3, Part 2, pp. 161-296.
- Melichar, L., 1901. Monographie der Acanaloniiden und Flatiden (Homoptera). *Annh naturh. Mus. Wien* 16: 178-258.
- Melichar, L., 1902. Monographie der Acanaloniiden und Flatiden (Homoptera) (Fortsetzung). *Annh naturh. Mus. Wien* 17: 1-123, 9 pls.
- Metcalf, Z.P., 1957. *General Catalogue of the Homoptera, Fasc. IV, Pt 13, Flatidae*. North Carolina State College: Raleigh. 565 pp.
- Montrouzier, X., 1861. Essai sur la faune entomologique de la Nouvelle-Calédonie (Balade) et des îles des Pins, Art, Lifu, etc. Hemipteres. *Annls Soc. ent. Fr.* 1: 59-74.
- Walker, F., 1851. *List of the specimens of Homopterous insects in the collection of the British Museum* 2: 261-636, pls. 3, 4.
- Walker, F., 1857a. Catalogue of the homopterous insects collected at Singapore and Malacca by Mr. A. R. Wallace, with descriptions of new species. *Proc. Linn. Soc. Lond.* 1: 82-100, pls. 3, 4.
- Walker, F., 1857b. Catalogue of the homopterous insects collected at Sarawak, Borneo, by Mr. A. R. Wallace, with descriptions of new species. *Proc. Linn. Soc. Lond.* 1: 141-74, pls. 7, 8.
- Walker, F., 1858a. *Insecta saundersiana* 1858: 1-117.
- Walker, F., 1858b. *List of the specimens of homopterous insects in the collection of the British Museum 1858*. 307 pp.
- Walker, F., 1862. Characters of undescribed species of Homoptera in the collection of F. P. Pasco, F.L.S. *J. ent. Lond.* 1: 303-19, pl. 15.
- Walker, F., 1870. Catalogue of the homopterous insects collected in the Indian Archipelago by Mr. A. R. Wallace, with descriptions of new species. *Zool. J. Linn. Soc.* 10: 82-193, 276-330, pl. 3.
- Walker, K.L., 1985. Mystery of Francis Walker specimens solved. *Antenna* 9: 78-80.