

Types of Flatidae (Homoptera)

XI. Taxonomic Notes on Kirkaldy Types in the Bishop Museum, with Illustrations of the Genitalia of Male Lectotypes

John T. Medler¹

ABSTRACT

The syntypes of 27 species described by G.W. Kirkaldy were examined and lectotypes and paralectotypes designated. The genitalia of lectotype males are illustrated. Seven new synonymies are established as follows (junior synonym listed first): *Sephena argus* Kirkaldy = *Sephena hyacintha* Kirkaldy; *Mimophantia australensis* Kirkaldy = *Microflata stictica* Melichar; *Phyllodryas calamina* Kirkaldy = *Poeciloptera niveina* Walker; *Sephena cinerea* Kirkaldy = *Massila unicolor* Walker; *Salurnis kershawi* Kirkaldy = *Ricania marginella* Guérin-Méneville; *Sephena rubida* Kirkaldy = *Paratella modesta* Melichar; *Massila sidnica* Kirkaldy = *Massila sicca* Walker.

INTRODUCTION

Syntypes of the species of Flatidae described by G.W. Kirkaldy were kept in the collection of the Hawaii Sugar Planters' Association until 1968, at which time they were transferred to the Bishop Museum (BPBM). I examined the Kirkaldy syntypes in connection with my research on the type specimens of Flatidae. This article is the eleventh in a series reporting on lectotype designations, illustrations of the genitalia of male lectotypes, and new synonymies.

When Kirkaldy's syntypes were received at the Bishop Museum, the specimens carried "holotype," "allotype," and "paratype" labels. I attribute this labeling to F. Muir, as evidenced by label format and handwriting. In some cases what might have been original Kirkaldy red type labels were glued to the underside of the Muir labels. Perhaps this labeling was done when Muir processed Kirkaldy's collection after the latter's death.

Muir never published on his Kirkaldy type selections, and where multiple specimens represent a named species they are considered here as syntypes.

M.J. Fletcher studied the Kirkaldy syntypes of *Siphanta* in 1981 and 1982 and attached lectotype and paralectotype labels. The type designations were validated by Fletcher (1985).

As identification of most species of flatids requires knowledge of characters of the male genitalia, I have designated males as lectotypes when possible and presented illustrations of their genitalia. Many of the "holotypes" of Muir are males, and these I have designated as lectotypes. However, in some cases I had to select a male lectotype from among specimens labeled as allotypes or paratypes. In all cases my designations of lectotypes and paralectotypes were done in strict conformity with data presented in the original publication. This applies especially to the species described by Kirkaldy in his 1906 and 1907 publications. Those species are based on collections of A. Koebele made in Queensland and New South Wales

1. Honorary Associate, J. Linsley Gressitt Center for Research in Entomology, Bernice P. Bishop Museum, P.O. Box 19000-A, Honolulu, Hawai'i, USA.

during June to December 1904 and January to March 1905. The collecting localities are recorded by means of printed name labels, except Kuranda, Nelson, and Redlynch, which are identified only by red K, N, or R initials, respectively, added to printed Cairns labels.

There are flatids in the Bishop Museum that bear Koebele collector labels but do not qualify as syntypes. The specimens were undoubtedly a part of the original collections, but they may not have been seen or used by Kirkaldy at the time he described new species. Perhaps some specimens were retained by Koebele as voucher material or sent to Hawai'i in different consignments. Also, the California Academy of Sciences contains some Koebele specimens that were acquired by W.M. Giffard for a personal collection. Such specimens have labels with information on collection dates not found on syntype labels.

R.C.L. Perkins (RCLP) as well as Koebele collected in Australia. That Perkins had some role in collecting flatids may be deduced by Kirkaldy's statement (1906: 453), "Mr. Perkins tells me that they [*Siphanta*] are quite distinct in the field." Also, Kirkaldy (1907: 100) used the initial "P" [=Perkins] to record collections of *Siphanta subgranulosa* at Cairns in July and August and Bundaberg in June. Kirkaldy did not record specimens collected by Perkins in his descriptions; neither have specimens collected by Perkins been found in the Bishop Museum. However, 2 collections bearing RCLP collector labels are known to me in the British Museum (Natural History): syntypes of *Massila walkeri* Kirkaldy and a male of *Massila sicca* Walker from Sydney, "12 Jan '09."

The Bishop Museum contains syntypes of new species described in the posthumous publication of Kirkaldy (1913), which reports on collections made by F. Muir in 1906 in the Malaysian region and a single specimen collected by Koebele in Mexico. A few additional specimens collected by Muir in 1907 are not considered syntypes as they are not labeled as paratypes.

The illustrations of male genitalia are based on my dissections of 6 holotypes, 14 lectotypes, and 1 plesiotype. The plesiotype of *acutipennis* may be identified by the attached blue label.

In the list that follows, the species names are arranged alphabetically, with the original genus name shown in parentheses. The present status of a name is given in brackets, if a change has been made in the original combination.

To preserve the historical content of the data on labels attached to the lectotypes and paralectotypes, all information is transcribed exactly as shown on the original labels. The format: (1), (2), (3), etc. indicates the sequence of labels on the pin from top to bottom. A slash (/) shows the separation of lines on each label. My hand-printed lectotype label (red) or paralectotype label (yellow) attached to each specimen is noted.

On the original labels the months are numbered in either Roman or Arabic styles. The numbers were edited uniformly in Roman style for publication in Kirkaldy (1906). In Kirkaldy (1907) the months are written out, e.g., June, July; this form does not occur on the original labels.

LIST OF TYPES

acutipennis Kirkaldy, 1906: 454 (**Siphanta**)

Fig. 15

Lectotype ♀ (BPBM 5452A): (1) Cairns, Q.N. [red N]/Austr. 7. 1904; (2) Allotype [red label]; (3) *Siphanta/acutipennis*/Kirk./♀ 316; (4) Paralectotype, desig. M.J. Fletcher, 1981 [blue label]; (5) Lectotype, desig. J.T. Medler '86 [red label]. Paralectotypes, 2♀: (1) Cairns, Q.N. [red N]/Austr. 7.1904; (2) Paralectotype, desig. M.J. Fletcher, 1981 [blue label]. Lectotype ♂ (invalid) (BPBM 5452) (dissected): (1) Cairns, Q./Austr. 7.1904; (2) *Siphanta/acutipennis*/Kirk./♂ 316 [obverse] type of/*acutipennis*/Kirk. [reverse, red label]; (3) Holotype [red label]; (4) Lectotype, desig. M.J. Fletcher 1981 [red label]; (5) Plesiotype, desig.

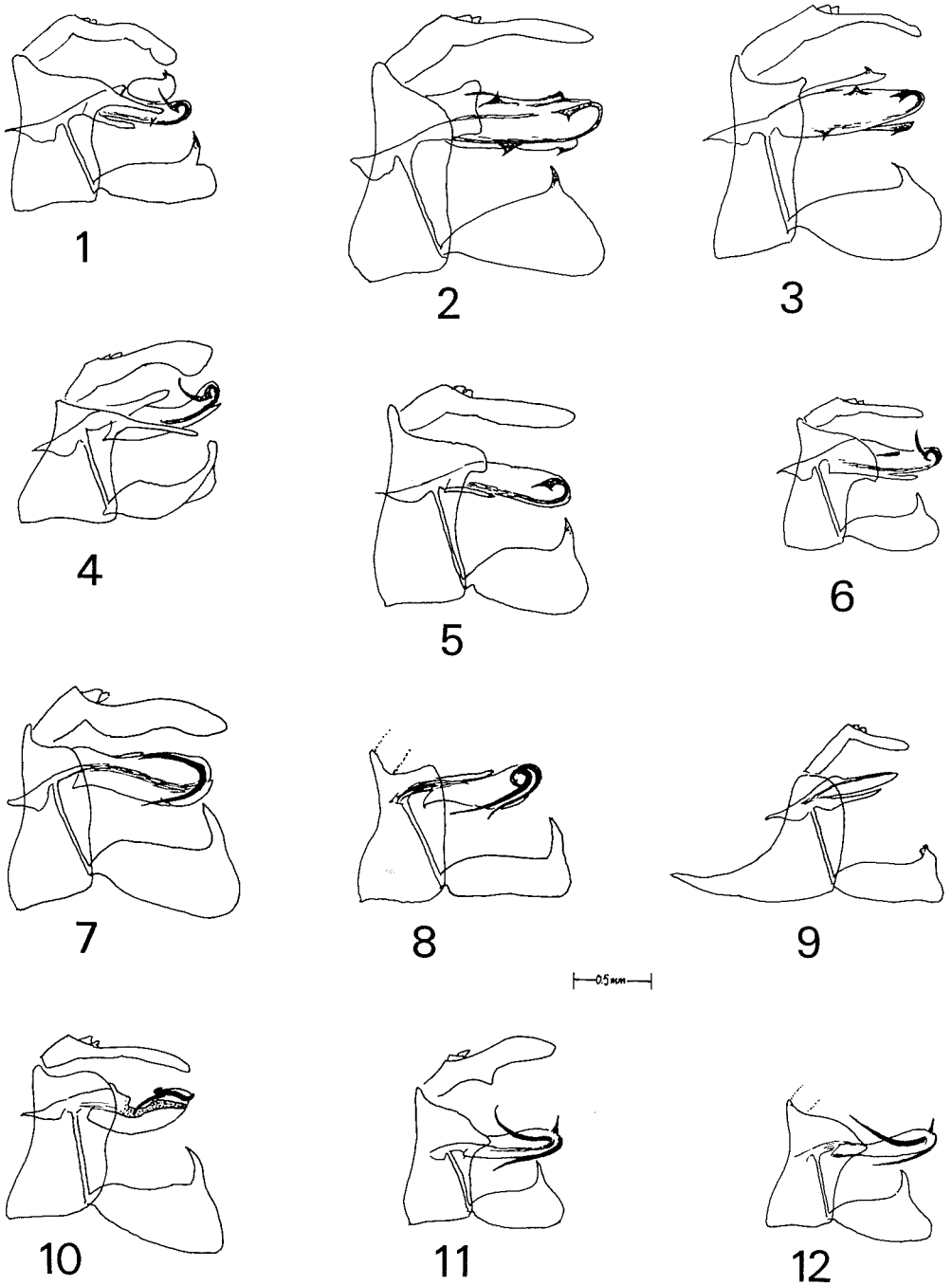


Fig. 1-12. Left lateral view of δ genitalia: 1, *Siphanta lucindae*; 2, *Siphanta javana*; 3, *Siphanta toga*; 4, *Siphanta granulata*; 5, *Siphanta galeata*; 6, *Siphanta sensilis*; 7, *Massila walkeri*; 8, *Massila sidnica*; 9, *Aphanophantia cuscucida*; 10, *Sephena cinerea*; 11, *Sephena hyacintha*; 12, *Sephena argus*.

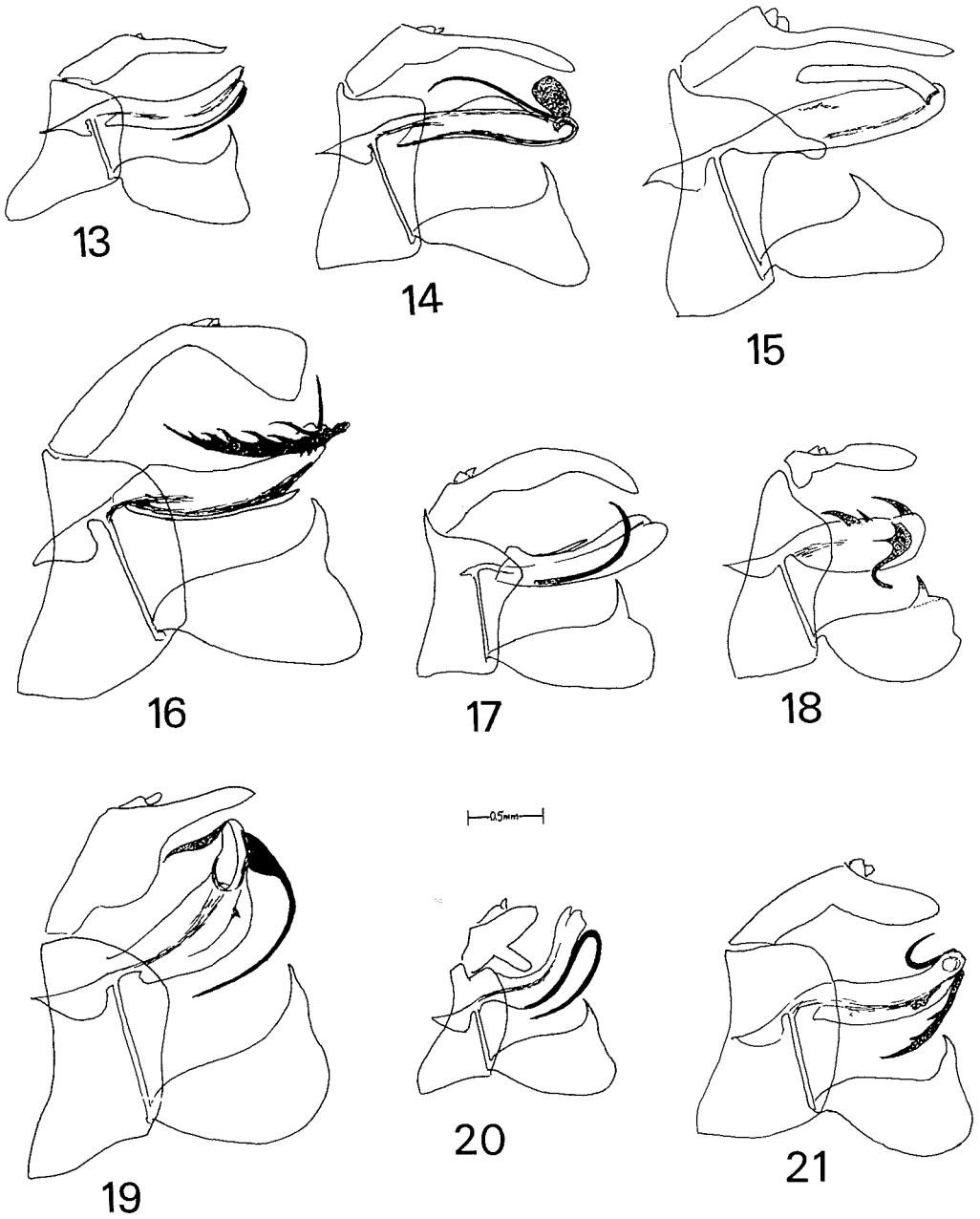


Fig. 13–21. Left lateral view of δ genitalia. 13, *Mistharnophantia sonora*; 14, *Colgar laraticus*; 15, *Siphanta acutipennis*; 16, *Salurnis kershawi*; 17, *Jamella australiae*; 18, *Thanatochlamys tristis*; 19, *Ormenis plebeia*; 20, *Mimophantia australensis*; 21, *Phyllodryas calamina*.

J.T. Medler '86 [blue label]. Paralectotypes (invalid): (1) Cairns, Q./Austr. 8.1904 [1 δ], Cairns Q./Austr. 7.1904 [1 f]; (2) Paralectotype, desig. M.J. Fletcher, 1981 [blue label].

The original publication cites material only as "Cairns VI" and "Nelson VII." No syntype labeled "Cairns VI" has been found. Only 3 females are known from Nelson. Consequently,

specimens from Cairns bearing arabic numeral dates 7 and 8 are not available syntypes and the lectotype and paralectotype designations of Fletcher (1985) are invalid.

I dissected the plesiotype male and illustrated the genitalia (Fig. 15). The genitalia characters agree with those shown for *acutipennis* by Fletcher (1985: fig. 85, 86).

argus Kirkaldy, 1906: 457 (**Sephena**)

Fig. 12

Holotype ♂ (BPBM 5448) (dissected): (1) Cairns, Q./Austr. 8.1904; (2) *Sephena/argus*/Kirk./♂ 326 [obverse] type of *argus*/Kirk. [reverse, red label]; (3) Holotype [red label].

In external appearance *argus* appears to differ from *Sephena hyacintha* Kirkaldy because it has more translucent tegmina. However, the characters of the genitalia (Fig. 12) are indistinguishable from those of *hyacintha*, and *argus* is selected as the junior synonym. **New synonymy.**

aurora Kirkaldy, 1913: 23 (**Nephesa**)

Holotype ♀ (BPBM 5441): (1) Amboina/F. Muir; (2) *Nephesa/aurora*/Kirk./♀ 650; (3) Holotype [red label].

I have not been able to distinguish differences between the holotype and specimens known to me as *Nephesa truncaticornis* (Spinola) sensu Melichar (1902). However, I have not yet examined the type of *Poeciloptera truncaticornis* Spinola, 1839, and this will be necessary to determine the valid status of *aurora*.

australensis Kirkaldy, 1906: 458 (**Mimophantia**)

Fig. 20

Lectotype ♂ (dissected): (1) Bundaberg, Q./Austr. 9–12.1904; (2) Coll. Koebele; (3) Paratype [yellow label]; (4) Lectotype, desig. J.T. Medler '86 [red label]. Paralectotype, ♀ (BPBM 5442): (1) Bundaberg, Q./Austr. 9–12.1904; (2) Coll. Koebele; (3) *Mimophantia/australensis*/Kirk./♀ 327 [obverse] type of *australensis*/Kirk. [reverse, red label]; (4) Holotype [red label]; (5) Paralectotype, desig. J.T. Medler '86 [yellow label]. Paralectotype, ♂ (BPBM 5442A): (1) Cairns, Q./Austr. 7.1904; (2) Allotype [red label]; (3) *Mimophantia/australensis*/Kirk./♂ 327; (4) Paralectotype, desig. J.T. Medler '86 [yellow label]. Paralectotypes, 3♂: (1), (2) [same labels as the lectotype]; (3) Paratype [yellow label]. Paralectotypes: (1) Cairns./Austr. 7.1904 [2♂], Cairns, Q./Austr. 8.1904 [4♂, 3♀], Cairns, Q.K. [red K]/Austr. 8.1904 [5♂, 5♀]; (2) Paratype [yellow label]; (3) Paralectotype, desig. J.T. Medler '86 [yellow label].

The lectotype genitalia are illustrated (Fig. 20). This species is a junior synonym of *Microflata stictica* Melichar, 1902, as shown by genital characters that are the same as those of the lectotype of *stictica* in the Stockholm Museum. A specimen illustrated by Fletcher (1979: fig. 3, 4) is the same species also. **New synonymy.**

Kirkaldy correctly placed *australensis* in *Mimophantia* Matsumura, 1900, which is a senior synonym of *Microflata* Melichar, 1902. This synonymy was proposed first by Jacobi (1915), but the synonymy has been overlooked by subsequent workers.

australiae Kirkaldy, 1906: 460 (**Jamella**)

Fig. 17

Lectotype ♂ (BPBM 5438A) (dissected): (1) Cairns, Q./Austr. 8.1904; (2) Allotype [red label]; (3) *Jamella/australiae*/Kirk./♂ 331; (4) Lectotype, desig. J.T. Medler '86 [red label]. Paralectotype, ♀ (BPBM 5438): (1) Cairns, Q./Austr. 8.1904; (2) *Jamella/australiae*/Kirk./♀ 331 [obverse] type of *australiae*/Kirk. [reverse, red label]; (3) Holotype [red label]; (4)

Paralectotype, desig. J.T. Medler '86 [yellow label]. Paralectotype, ♀: (1) Cairns, Q./Austr. 8.1904; (2) Paratype [yellow label]; (3) Paralectotype, desig. J.T. Medler '86 [yellow label].

The lectotype genitalia are illustrated (Fig. 17).

breviceps Kirkaldy, 1906: 454 (**Siphanta**)

[*Poeciloptera hebes* Walker, 1851, synonymy by Fletcher (1985)]

Holotype ♀ (BPBM 5453): (1) Brisbane, Q./Austr. 6.1904; (2) *Siphanta/breviceps/Kirk/♀* 317 [obverse] type of/*breviceps/Kirk*. [reverse, red label]; (3) Holotype [red label].

The original description gives Bundaberg, Queensland as the type locality, but a syntype with a Bundaberg label has not been found.

Fletcher (1985) treated this species as a junior synonym of *Siphanta hebes* (Walker).

calamina Kirkaldy, 1913: 22 (**Phyllodryas**)

Fig. 21

Lectotype ♂ (BPBM 5446A) (dissected): (1) W. Borneo/Telok Ayer/F. Muir; (2) Allotype [red label]; (3) *Phyllodryas/calamina/Kirk./♂* 649; (4) Lectotype, desig. J.T. Medler '86 (red label). Paralectotype, ♀ (BPBM 5446): (1) W. Borneo/Telok Ayer/F. Muir; (2) *Phyllodryas/calamina/Kirk./♀* 649; (3) Holotype [red label]; (4) Paralectotype, desig. J.T. Medler '86 [yellow label].

The lectotype genitalia are illustrated (Fig. 21).

This species is a junior synonym of *Poeciloptera niveina* Walker, 1857, based on study of the type of *niveina* in the British Museum. **New synonymy.**

cinerascens Kirkaldy, 1906: 456 (**Euryphantia**)

Holotype ♀ (BPBM 5437): (1) Bundaberg, Q./Austr. VI 1904; (2) *Euryphantia/cinerascens/Kirk./♀* 322; (3) Holotype [red label].

Fletcher (1980) published on the status of this species and illustrated the genitalia of a male specimen from Bundaberg, Queensland. As the genitalia have been illustrated, I have not selected a plesiotype male.

cinerea Kirkaldy, 1906: 457 (**Sephena**)

Fig. 10

Lectotype ♂ (BPBM 5449) (dissected): (1) Sydney, N.S.W./Austr. 1.1905; (2) Coll. Koebele; (3) *Sephena/cinerea/Kirk./♂* 325; (4) Holotype [red label]; (5) Lectotype, desig. J.T. Medler '86 [red label]. Paralectotype, ♀ (BPBM 5449A): (1) Sydney, N.S.W./Austr. 2.1905; (2) Coll. Koebele; (3) Allotype [red label]; (4) *Sephena/cinerea/Kirk./♀* 325 [obverse] type of *cinerea/Kirk*. [reverse, red label]; (5) Paralectotype, desig. J.T. Medler '86 [yellow label]. Paralectotypes: (1) Sydney, N.S.W./Austr. 1.1905 [1♂,10♀], Austr. 2.1905 [1♂,2♀]; (2) Paratype [yellow label]; (3) Paralectotype, desig. J.T. Medler '86 [yellow label].

The genitalia of the lectotype are illustrated (Fig. 10). The genital characters are the same as those illustrated by Fletcher (1979: fig. 7, 8) for a specimen named *Melicharia unicolor* (Walker). The holotype female of *Massila unicolor* Walker, 1862, in the British Museum is the same as the paralectotype female of *cinerea*, and Kirkaldy's species falls as the junior synonym. **New synonymy.**

cuscuticida Kirkaldy, 1906: 459 (**Aphanophantia**)

Fig. 9

[*Phantiopsis australiaca* Melichar (1905): see Metcalf (1957)]

Lectotype ♂ (BPBM 5434A): (1) Sydney, N.S.W./Austr. 2.1905; (2) Coll. Koebele; (3) Allotype [red label]; (4) *Aphanophantia/cuscuticida/Kirk./♂* 328; (5) Lectotype, desig. J.T.

Medler '86 [red label]. Paralectotype, ♀ (BPBM 5434): (1) Sydney, N.S.W./Austr. 2.1905; (2) Coll. Koebele; (3) Aphanophantia/cuscuticida/Kirk./♀ 328 [obverse] type of/cuscuticida/Kirk. [reverse, red label]; (4) Holotype [red label]; (5) Paralectotype, desig. J.T. Medler '86 [yellow label]. Paralectotypes, 12♂, 16♀: (1) Sydney, N.S.W./Austr. 2.1905; (2) Paratype [yellow label]; (3) Paralectotype, desig. J.T. Medler '86 [yellow label].

Because of the extremely small size of this species, I did not dissect the lectotype. A paralectotype from Sydney, 2.1905, was used for the genital preparation that is illustrated (Fig. 9). The genital characters are the same as those illustrated by Fletcher (1979: fig. 5, 6) for a specimen of *australiaca*.

galeata Kirkaldy, 1906: 454 (**Siphanta**)

Fig. 5

Lectotype ♂ (BPBM 5554) (dissected): (1) Cairns, Q./Austr. 8.1904; (2) Siphanta/galeata/Kirk./♂ 315 [obverse] type of/galeata Kirk. [reverse, red label]; (3) Holotype [red label]; (4) Lectotype, desig. M.J. Fletcher 1981 [red label]. Paralectotype, ♀ (BPBM 5554A): (1) Cairns, Q./Austr. 8.1904; (2) Allotype [red label]; (3) Siphanta/galeata/Kirk./♀ 315; (4) Paralectotype, desig. M.J. Fletcher 1981 [blue label]. Paralectotypes: (1) Cairns, Q./Austr., 7.1904 [1♂, 2♀], 8.1904 [2♂, 4♀]; (2) Paratype [yellow label]; (3) Paralectotypes, desig. M.J./Fletcher 1981 [blue label].

Lectotype and paralectotype designations were validated by Fletcher (1985). The lectotype has been dissected to show characters of the genitalia (Fig. 5).

granulata Kirkaldy, 1906: 455 (**Siphanta**)

Fig. 4

Holotype ♂ (BPBM 5455) (dissected): (1) Cairns, Q./Austr. 7.1904; (2) Siphanta/granulata/Kirk./♂ 321 [obverse] type of/granulata/Kirk. [reverse, red label].

The holotype has been dissected to illustrate characters of the genitalia (Fig. 4).

granulatus Kirkaldy, 1913: 20 (**Colgar**)

Holotype ♀ (BPBM 5435): (1) Larat/F. Muir; (2) Colgar/granulatus/Kirk./♀ 646; (3) Holotype [red label].

This appears to be a good species that is very close to *Colgar laraticus* Kirkaldy, having the tegmina of similar shape. The holotype differs from *laraticus* in not having a distinctive pattern of red pigmentation on the dorsum of the head, pro- and mesothorax, and margins of the tegmina.

hyacintha Kirkaldy, 1906: 457 (**Sephena**)

Fig. 11

Lectotype ♂ (BPBM 5450A) (dissected): (1) Cairns, Q./Austr. 7.1904; (2) Allotype [red label]; (3) Sephena/hyacintha/Kirk./♂ 324; (4) Lectotype, desig. J.T. Medler '86 [red label]. Paralectotype, ♀ (BPBM 5450): (1) Cairns, Q./Austr. VII.1904; (2) Sephena/hyacintha/Kirk./♀ 324 [obverse] type of/hyacintha/Kirk. [reverse, red label]; (3) Paralectotype, desig. J.T. Medler '86 [yellow label]. Paralectotypes: (1) Cairns, Q./Austr. 8.1904 [1♂, 1♀], Brisbane, Q./Austr. 6.1904 [1♀]; (2) Paratype [yellow label]; (3) Paralectotype, desig. J.T. Medler '86 [yellow label].

The lectotype genitalia are illustrated (Fig. 11). This species is not congeneric with *Nephesa spargula* Walker, 1870, type of the genus *Sephena*. A new genus is required for its disposition.

javana Kirkaldy, 1913: 21 (**Siphanta**)

Fig. 2

[*Phyllyphanta patruelis* Stål, 1859, synonymy by Fletcher (1985)]

Lectotype ♂ (BPBM 5456) (dissected): (1) Java/Pekalongan/F. Muir; (2) Siphanta/javana/Kirk./♂ 648; (3) Holotype [red label]; (4) Lectotype, desig. J.T. Medler '86 [red label]. Paralectotype, ♀ (BPBM 5456A): (1) Java/Pekalongan/F. Muir; (2) Allotype [red label]; (3) Siphanta/javana/Kirk./♀ 648; (4) Paralectotype, desig. J.T. Medler '86 [yellow label]. Paralectotypes, 2♂: (1) Java/Pekalongan/F. Muir; (2) Paratype [yellow label]; (3) Paralectotype, desig. J.T. Medler '86 [yellow label].

Fletcher (1985) examined the lectotype male and correctly treated *javana* as a junior synonym of *Siphanta patruelis* (Stål). I dissected the lectotype and illustrated the characters of the genitalia (Fig. 2).

kershawi Kirkaldy, 1913: 21 (**Salurnis**)

Fig. 16

Holotype ♂ (BPBM 5447) (dissected): (1) Macao/F. Muir; (2) Salurnis/kershawi/Kirk./♂ 647; (3) Holotype [red label].

The holotype genitalia are illustrated (Fig. 16). The species is a junior synonym of *Ricania marginella* Guérin-Méneville, 1829, based on my examination of the type in the Naples Museum. **New synonymy.**

laraticus Kirkaldy, 1913: 20 (**Colgar**)

Fig. 14

Lectotype ♂ (BPBM 5436) (dissected): (1) Larat/F. Muir; (2) Colgar/laraticus/Kirk./♂ 645; (3) Holotype [red label]; (4) Lectotype, desig. J.T. Medler '86 [red label]. Paralectotype, ♀ (BPBM 5436A): (1) Larat/F. Muir; (2) Allotype [red label]; (3) Colgar/laraticus/Kirk./♀ 645; (4) Paralectotype, desig. J.T. Medler '86 [yellow label]. Paralectotypes, 8♂,7♀: (1) Larat/F. Muir; (2) Paratype [yellow label]; (3) Paralectotype, desig. J.T. Medler '86 [yellow label].

The lectotype genitalia are illustrated (Fig. 14). This species is similar to *Nephesa chlorospila* Walker but differs in shape of the tegmina and the distinctive pattern of red markings on the head, pro-, and mesonotum, and margins of the tegmina.

lucindae Kirkaldy, 1906: 455 (**Siphanta**)

Fig. 1

Holotype ♂ (BPBM 5457) (dissected): (1) Lucinda Pt./Q. 7.1904; (2) Siphanta/lucindae/Kirk./♂ 319; (3) Holotype [red label].

The holotype was examined by Fletcher (1985). The illustration of the genitalia (Fig. 1) is based on my dissection of the holotype.

plebeia Kirkaldy, 1913: 23 (**Ormenis**)

Fig. 19

Holotype ♂ (BPBM 5444) (dissected): (1) Cuernavaca/Mexico/Coll. Koebele; (2) Ormenis/plebeia/Kirk./♂ 651; (3) Holotype [red label].

The holotype genitalia are illustrated (Fig. 19).

rubida Kirkaldy, 1906: 457 (**Sephena**)

Lectotype ♀ (BPBM 5451): (1) Sydney, N.S.W./Austr. 1.1905; (2) Coll. Koebele; (3) Sephena/rubida/Kirk./♀ 323 [obverse] type of/rubida/Kirk. [reverse, red label]; (4) Holotype [red label]; (5) Lectotype, desig. J.T. Medler '86 [red label]. Paralectotype, ♀: (1) Sydney, N.S.W./Austr. 2.1905; (2) Coll. Koebele; (3) Paratype [yellow label]; (4) Sephena/rubida/Kirk.; (5) Paralectotype, desig. J.T. Medler '86 [yellow label].

This species is a junior synonym of *Paratella modesta* Melichar, 1902, based on my examination of the lectotype in the Stockholm Museum. **New synonymy.**

sensilis Kirkaldy, 1907: 101 (**Siphanta**)

Fig. 6

[*Cicada minuta* Fabricius, 1775; synonymy by Fletcher (1985)]

Lectotype ♂ (BPBM 5458) (dissected): (1) Cairns, Q./Austr. 7.1904; (2) Siphanta/sensilis/Kirk./♂ 447 [obverse] type of/sensilis Kirk. [reverse, red label]; (3) Holotype [red label]; (4) Lectotype, desig. J.T. Medler '86 [red label]. Paralectotype, ♀ (BPBM 5458A): (1) Cairns, Q./Austr. 8.1904; (2) Allotype [red label]; (3) Siphanta/sensilis/Kirk./♀ 447; (4) Paralectotype, desig. J.T. Medler '86 [yellow label]. Paralectotypes: (1) Cairns, Q./Austr. VII.1904 [1♂, 7.1904 [3♂,3♀], 8.1904 [6♂,3♀]; (2) Paratype [yellow label]; (3) Paralectotype, desig. J.T. Medler '86 [yellow label].

Fletcher (1985) examined the lectotype and 2 male paralectotypes. The illustration of the characters of the male genitalia (Fig. 6) is based on my dissection of the lectotype.

sidnica Kirkaldy, 1906: 460 (**Massila**)

Fig. 8

Lectotype ♂ (BPBM 5439A) (dissected): (1) Sydney, N.S.W./Austr. 1.1905; (2) Coll. Koebele; (3) Allotype [red label]; (4) Massila/sidnica/Kirk./♂ 330; (5) Lectotype, desig. J.T. Medler '86 [red label]. Paralectotype, ♀ (BPBM 5439): (1) Sydney, N.S.W./Austr. 2.1905; (2) Coll. Koebele; (3) Massila/sidnica/Kirk./♀ 330 [obverse] type of/sidnica/Kirk. [reverse, red label]; (4) Paralectotype, desig. J.T. Medler '86 [yellow label]. Paralectotypes, 1♂,2♀: (1) Sydney, N.S.W./Austr. 1.1905; (2) Coll. Koebele; (3) Paratype [yellow label]; (4) Paralectotype, desig. J.T. Medler '86 [yellow label].

The lectotype genitalia are illustrated (Fig. 8). This species is a synonym of *Massila sicca* Walker, 1862, based on my study of the type of *sicca* in the British Museum. **New synonymy.**

sonorana Kirkaldy, 1907: 66 (**Mistharnophantia**)

Fig. 13

Holotype ♂ (BPBM 5445) (dissected): (1) 2498; (2) Nogales; (3) Arizona/A. Koebele; (4) Mistharno-/phantia/sonorana/Kirk./♂ 582; (5) Holotype [red label].

I dissected the holotype and illustrated its genitalia as shown (Fig. 13). The characters are the same as those given for the species by Doering & Shepherd (1946).

subgranulosa Kirkaldy, 1906: 455 (**Siphanta**)

Lectotype ♀ (BPBM 5459): (1) Cairns, Q./Austr. VII.1904; (2) Siphanta/subgranulosa/Kirk./♀ 320 [obverse] type of/subgranulosa/Kirk. [reverse, red label]; (3) Holotype [red label]; (4) Lectotype, desig. M.J. Fletcher, 1982 [red label]. Paralectotype (no abdomen): (1) Cairns, Q./Austr. VII.1904; (2) Paratype [yellow label]; (3) Paralectotype, desig. M.J. Fletcher, 1982 [blue label].

The only available syntype that is intact is a female. Fletcher (1985) cited a male specimen from Cairns (8.1904) bearing an allotype label (BPBM 5459A) as the lectotype. This specimen is not a valid syntype, as its collection date is not given in the original publication. However, the dissected genitalia of this male have characters considered representative of the species.

toga Kirkaldy, 1906: 454 (**Siphanta**)

Fig. 3

[*Phyllyphanta patruelis* Stål, 1859; synonymy by Fletcher (1985)]

Lectotype ♂ (BPBM 5460): (1) Cairns, Q.N. [red N]/Austr. 7.1904; (2) Siphanta/toga/Kirk./♂ 318 [obverse] type of/toga/Kirk. [reverse, red label]; (3) Holotype [red label]; (4)

Lectotype, desig. J.T. Medler '86 [red label]. Paralectotype, ♀ (BPBM 5460A): (1) Cairns, Q./Austr. VII.1904; (2) Allotype [red label]; (3) *Siphanta/toga/Kirk./♀* 318; (4) Paralectotype, desig. J.T. Medler '86 [yellow label]. Paralectotypes, 2♂: (1) Cairns, Q./Austr. VII.1904; (2) Paratype [yellow label]; (3) Paralectotype, desig. J.T. Medler '86 [yellow label].

Fletcher (1985) examined the "holotype" male and correctly treated *toga* as a junior synonym of *Siphanta patruelis*. My dissection of the lectotype was used to illustrate characters of the genitalia (Fig. 3), which are the same as the genital characters of *javana* and *patruelis*.

tristis Kirkaldy, 1907: 101 (**Thanatochlamys**)
[*Euryphantia*, new combination by Fletcher (1980)]

Fig. 18

Holotype ♂ (BPBM 5461) (dissected): (1) Cairns, Q./Austr. 7.1904; (2) *Thanatochlamys/Kirk./♂* 448; (3) Holotype [red label]; (4) *Euryphantia/tristis/(Kirkaldy)/det. M.J. Fletcher*.

The holotype genitalia are illustrated (Fig. 18). Fletcher (1980) treated *tristis* as a valid species in the genus *Euryphantia*. Its distribution and characters of the genitalia differentiate this species from *cinerascens*, which has a similar appearance.

walkeri Kirkaldy, 1906: 459 (**Massila**)

Fig. 7

Lectotype ♂ (5440A) (dissected): (1) Brisbane, Q./Austr. VI.1904; (2) Allotype [red label]; (3) *Massila/walkeri/Kirk./♂* 329; (4) Lectotype, desig. J.T. Medler '86 [red label]. Paralectotype, ♀ (BPBM 5440): (1) Brisbane, Q./Austr. VI.1904; (2) *Massila/walkeri/Kirk./♀* 329 [obverse] type of *walkeri/Kirk.* [reverse, red label]; (3) Paralectotype, desig. J.T. Medler '86 [yellow label]. Paralectotypes: (1) Bundaberg, Q./Austr. 9-12.1904 [2♂, 2♀], Brisbane, Q./Austr. VI.1904 [1♂]; (2) Coll. Koebele; (3) Paratype [yellow label]; (4) Paralectotype, desig. J.T. Medler '86 [yellow label]. Also, syntypes in the British Museum: 2♂, 7♀, Bundaberg VI.1904, RCLP, BM 1949-95, are here designated as paralectotypes (yellow label).

The lectotype genitalia are illustrated (Fig. 7).

ACKNOWLEDGMENT

I am pleased to acknowledge the help of Gordon Nishida in developing the format of this publication.

LITERATURE CITED

- Doering, K.C. & C.J. Shepherd.** 1946. Some new species of the genus *Mistharnophantia* Kirkaldy (subfamily Flatinae, family Fulgoridae, Homoptera). J. Kans. Entomol. Soc. 19: 112-27.
- Fletcher, M.J.** 1979. Notes on Australian Flatidae (Homoptera, Fulgoroidea) including a new synonymy. Gen. Appl. Entomol. 11: 67-71.
- . 1980. Review of the Australian genera *Euryphantia* Kirkaldy and *Thanatochlamys* Kirkaldy (Homoptera, Fulgoroidea, Flatidae). Aust. Entomol. Mag. 7: 21-26.
- . 1985. Revision of the genus *Siphanta* Stål (Homoptera: Fulgoroidea: Flatidae). Aust. J. Zool. Suppl. 110: 1-95, 291 fig.
- Guérin-Méneville, F.E.** 1829. Homoptera. Plates from Iconographie règnes animal de G. Cuvier. 1829. pl. 58-59.
- Jacobi, A.** 1915. Kritische Bemerkungen über die Flatinae (Rhynchota Homoptera). Dtsch. Entomol. Z. 1915: 157-78.
- Kirkaldy, G.W.** 1906. Leafhoppers and their natural enemies (Pt. IX. Leafhoppers Hemiptera). Bull. Hawaii. Sugar Plant. Assoc. Div. Entomol. 1(9): 271-479, pl. 21-32.
- . 1907. Leafhoppers—Supplement (Hemiptera). Bull. Hawaii. Sugar Plant. Exp. Stn. 3: 1-186, pl. i-xx.

- . 1913. On some new species of leafhoppers. Part 1. Bull. Hawaii. Sugar Plant. Assoc. Div. Entomol. 12: 7–27.
- Melichar, L.** 1902. Monographie der Acanaloniiden und Flatiden (Homoptera) (Fortsetzung). Ann. Naturhist. Mus. Wien 17: 1–123, 9 pl.
- . 1905. Genera tria Fulgoridarum mundi antiqui. Ann. Mus. Nat. Hung. 3: 473–77, fig. 1–3.
- Metcalf, Z.P.** 1957. General catalogue of the Homoptera. Fasc. 4, Part 13. Flatidae. North Carolina State College, Raleigh. 565 pp.
- Walker, F.** 1862. Characters of undescribed species of Homoptera in the collection of F.P. Pasco, F.L.S. J. Entomol. (Lond.) 1: 303–19, pl. 15.
- . 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.