

Types of Flatidae XXII. E. Schmidt Types in the Warsaw Museum and other Museums (Homoptera: Flatidae)

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Abstract. My study of extant syntypes of 57 species of flatid planthoppers described by Edmund Schmidt, 1904–1928, is reported. Of the total named species, only 2 were not found and are presumed lost. Primary types of 42 species were deposited in the Museum and Institute of Zoology PAS Warsaw. Primary types in other depositories were 6 at Tervuren, 3 at Hamburg, and 1 each at Berlin-Humboldt, Brussels, Budapest and Genova. Available males were designated as lectotypes and genitalia illustrated. New synonymies proposed, junior synonym first, and current generic status in brackets []: *Flata ferruginea* var. *aeruginosa* = *Phromnia montivaga* Distant [*Flatida*], *Copsyrna alma* = *Poeciloptera maculata* Guérin [*Copsyrna*], *Nephesa aurantiaca* = *Nephesa completa* Walker, *Bythopsyrna dohrni* var. *borneensis* = *Poeciloptera circulata* Guérin [*Bythopsyrna*], *Nephesa carinulata* = *Nephesa completa* Walker, *Bythopsyrna dohrni* = *Poeciloptera circulata* Guérin [*Bythopsyrna*], *Doria ecuadoriana* = *Poeciloptera conspersa* Walker [*Doriana*], *Flata ferruginea* = *Phromnia montivaga* Distant [*Flatida*], *Phyma hyalina* = *Colobesthes guttifascia* Walker [*Lawana*], *Walkeria melichari* = *Lawana radiata* Distant [*Eumelicharia*], *Bythopsyrna rabbowi* = *Poeciloptera circulata* Guérin [*Bythopsyrna*], *Euphanta rubromarginata* = *Euphanta acuminata* Melichar, *Phyma subapicalis* and *Phyma inornata* Melichar = *Colobesthes exaltata* Walker [*Lawana*], *Bythopsyrna udei* = *Poeciloptera circulata* Guérin [*Bythopsyrna*], *Bythopsyrna violacea* = *Bythopsyrna illocata* Melichar. New combinations: *Pseudooryxa carinulata* in *Oryxa*; *Phyma griseopunctata* in *Flata*; *Flatoides simulans* in *Flataloides*; *Ormenis taeniata* in *Paranotus*.

Key words: Type specimens, Homoptera, Flatidae.

Edmund Schmidt was Curator of Homoptera at the Stettin Museum für Naturkunde. Schmidt published 120 articles on Homoptera Auchenorrhyncha during the years 1904–1932, according to Metcalf (1942). Sixty articles appeared in the Stettiner Entomologische Zeitung, and 60 articles were in 11 other journals. Descriptions of 57 species of Flatidae appeared in 11 articles from 1904 to 1928.

Historically, Stettin was an important Baltic port of Germany. After assignment to Poland by the Potsdam Conference in 1945, Stettin's name was changed to Szczecin. The Schmidt collection bears labels showing 12/45 as the acquisition date of specimens by "Mus. Zool. Polonicum" Warszawa. It is remarkable that the Schmidt types from Stettin survived World War II undamaged. The specimens bearing original labels that are deposited at present in the Museum and Institute of Zoology, PAS, Warsaw have been maintained in

excellent condition. The syntypes of 13 Schmidt species originally distributed in Museums at Berlin, Brussels, Budapest, Genova, Hamburg and Tervuren were reported earlier by Medler, and have been annotated in the present list. Syntypes of *fumata* and *udei* were not found, and types of the 2 species are considered lost.

Museums containing Schmidt material are identified in the text by names of cities, as follows:

Berlin – Museum für Naturkunde der Humboldt Universität, Germany;
 Brno – Moravian Land Museum, Czech Republic;
 Brussels – Institute Royal des Sciences Naturelles de Belgique, Belgium;
 Budapest – Hungarian Natural History Museum, Hungary;
 Dresden – Staatliches Museum für Tierkunde, Germany;
 Genova – Museo Civico di Storia Naturale di Genova, Italy;
 Hamburg – Universität Hamburg Zoologisches Institut und Zoologisches Museum, Germany;
 Paris – Museum National d'Histoire Naturelle, France;
 Tervuren – Musée Royal de l'Afrique Centrale, Belgium;
 Vienna – Naturhistorisches Museum, Austria;
 Warsaw – Museum and Institute of Zoology, Polish Academy of Sciences, Poland.

Measurements. Morphometric data on primary types were recorded in mm according to the following standardized format: Length: overall; v (vertex); f (frons); p (pronotum); m (mesonotum); t (tegmen); pcl (postclaval sutural margin). Width: v (vertex); f (frons); t (tegmen). The spine formula gives sequence of metatibial lateral spine (s); metatibial apical spines; metatarsal I basal spines.

Genitalia. Species of Flatidae are accurately identified by characters of the male genitalia. Whenever possible male specimens were designated lectotype and characters of the genitalia illustrated. If the primary type was female, then a representative male was selected for illustration and measurement purposes. Such males were indicated by a blue plesiotype label.

CATALOGUE

Types are arranged by species name in alphabetical sequence. Each name is associated with reference to original publication and generic combination. A subsequent change in generic combination is indicated by the new genus name in brackets.

aeruginosa

Flata ferruginea var. *aeruginosa* Schmidt, 1904b:355 [*Flatida*, Metcalf, 1957:31].

Holotype ♀, Nord-Borneo, Waterstradt; Warsaw Museum.

Measurements – Length: overall 25.0; v 0.83; f 1.66; p 1.25; m 4.15; t 20.92; pcl 3.32. Width: v 0.83; f 0.50; t 12.62. Hind leg spine formula: 2:8:6.

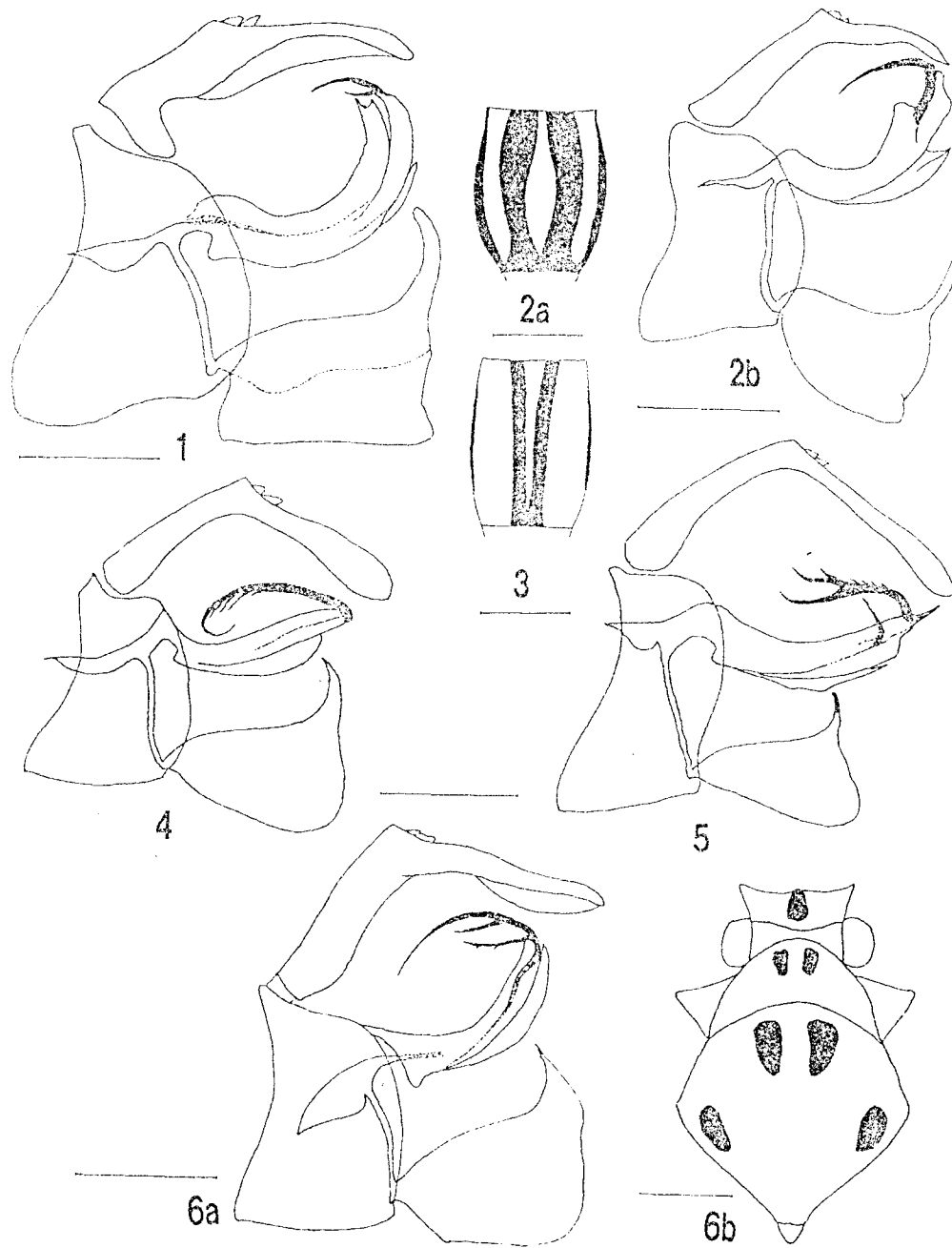
Junior synonym of *Flatida montivaga* Distant, NEW SYNONYMY.

alma

Copsyrna alma Schmidt, 1904a:185.

Lectotype ♂, Sumatra, Soekaranda, Januar 1894, Dohrn; Paralectotype ♀, Soekaranda, Dohrn; Warsaw Museum; here designated.

Measurements from lectotype and paralectotype – Length: overall 18.0, 21.0; v 0.42, 0.50; f 1.66, 1.74; p 0.75, 0.75; m 2.32, 2.66; t 16.27, 17.43; pcl 6.31, 7.14. Width: v 0.95, 1.16; f 1.16, 1.37; t 6.47, 7.47. Hind leg spine formula: 1:5:7, 1:6:5.



Figs 1-6. Left lateral view of male genitalia, except where indicated otherwise: (1) *Bythopsyrna dohrni* Schmidt; (2) *Bythopsyrna sumatrana* Schmidt, a, frons, b, genitalia; (3) *Bythopsyrna intermedia* Schmidt, frons; (4) *Nephesa carinulata* Schmidt; (5) *Nephesa aurantiaca* Schmidt; (6) *Copsyrna alma*, a, genitalia, b dorsum of head and thorax. Scale bar: 1 mm.

The lectotype genitalia (Fig. 6a) are the same as illustrated by Medler, 1988a:15, fig. I, 6, for *Poeciloptera maculata* Guérin-Méneville, 1829. The markings on body and tegmina of *alma* are faded, but the pattern is similar to *maculata* illustrated in color by Melichar, 1923, fig. 19. Because of fading, the posterior pair of mesonotum spots found in *maculata* are lost in *alma*, (Fig. 6b).

Junior synonym of *Copsyrna maculata* (Guérin-Méneville), NEW SYNONYMY.

angulinum

Phlebopterum angulinum Schmidt, 1912b:97.

Lectotype ♂, Lake Nyassa, Langenburg, and paralectotype ♀, D. O. Africa, Amani, in Berlin Museum, were reported by Medler, 1990b:106, fig. 18, with illustration of lectotype genitalia.

aurantiaca

Nephesa aurantiaca Schmidt, 1904a:211.

Holotype ♂, Nord-Borneo, Waterstradt, Warsaw Museum.

Measurements – Length: overall 16.0; v 0.33; f 1.66; p 0.66; m 3.15; t 13.28; pcl 5.81. Width: v 1.49; f 1.91; t 6.14. Hind leg spine formula: 1:6:7.

Holotype genitalia are illustrated (Fig. 5).

Junior synonym of *Nephesa completa* Walker, NEW SYNONYMY.

basipunctata

Phyma basipunctata Schmidt, 1906:209 [*Flatopsis nivea*, Medler, 1993a:22].

Holotype ♀, Madagascar, Montagne d'Ambre, Tervuren Museum, was disposed by Medler, 1993a:22, as junior synonym of *Flatopsis nivea* (Signoret).

bimaculata

Phromnia bimaculata Schmidt, 1912a:362. [*Flatida*, Metcalf, 1957:29]

Paralectotype ♀, Kasaii Lodimalo, 8-06, Waelbroeck; Warsaw Museum, here designated. Lectotype ♀, C. Africa: Bumputu, and plesiotype ♂, Kinshasa, Mongati, Tervuren Museum, reported by Medler, 1993a:22, fig. 5, with illustration of ♂ genitalia.

bipunctata

Flatula bipunctata Schmidt, 1904b:362.

Holotype ♀, Nord-Borneo, Waterstradt, Warsaw Museum.

Measurements – Length: overall 13.0; v 0.17; f 1.66; p 0.83; m 2.66; t 8.80; pcl 3.49. Width: v 1.08; f 1.41; t 5.48. Hind leg spine formula: 2:6:6.

bipunctata

Uxantis bipunctata Schmidt, 1928:139. [*Atracis*, Medler, 1988a:18].

Holotype ♂, Kei Eil 1922, Gn. Daab 77, Siebers, Warsaw Museum.

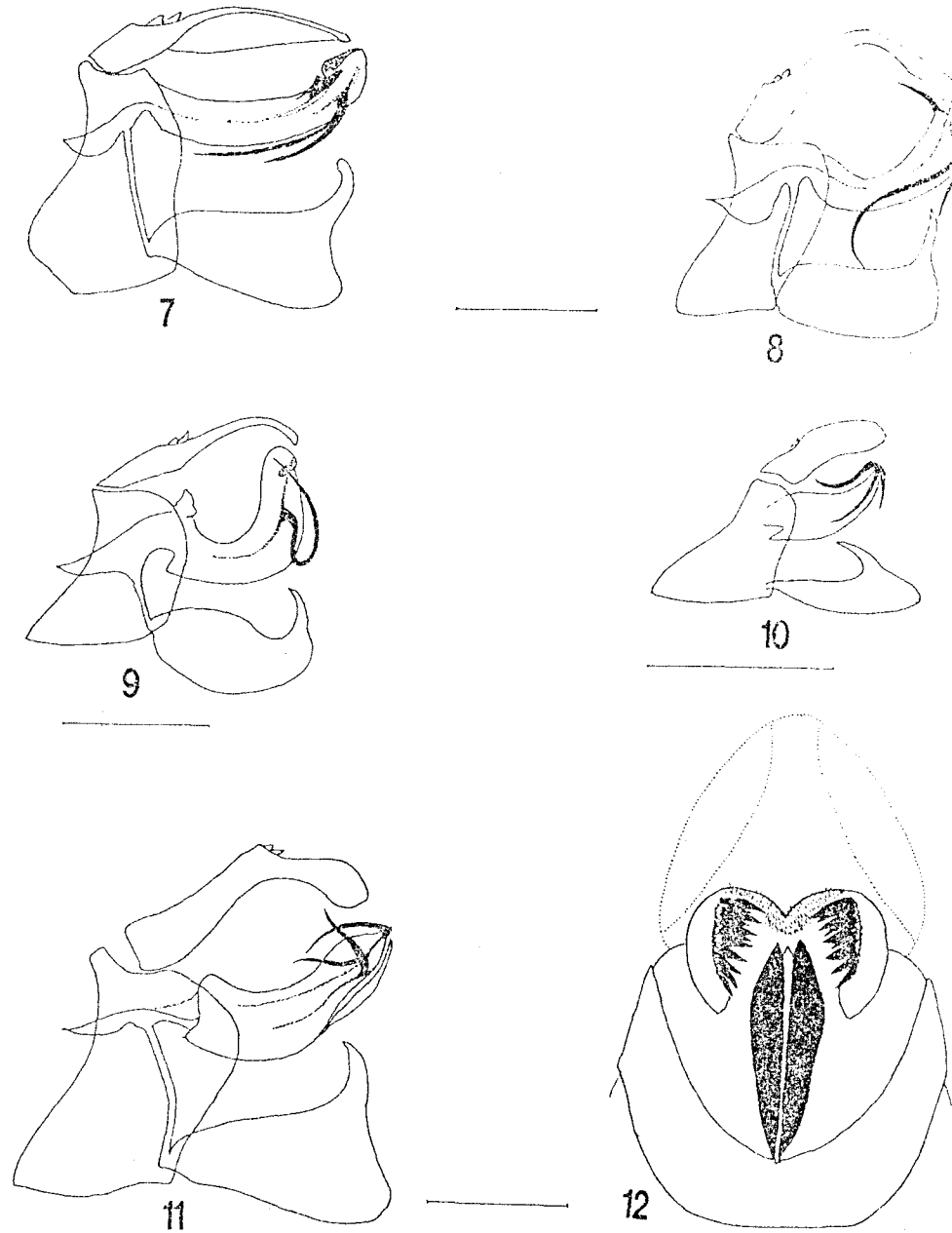
Measurements – Length: overall 10.5; v 0.33; f 1.16; p 0.58; m 1.66; t 7.97; pcl 3.32. Width: v 0.91; f 1.25; t 3.32. Hind leg spine formula: 1:5:6.

Holotype genitalia are illustrated (Fig. 10).

borneensis

Bythopsyrna dohrni var. *borneensis* Schmidt, 1909:191

Holotype ♀, Nord-Borneo, Waterstradt; Warsaw Museum.



Figs 7-12. Left lateral view of male genitalia: (7) *Dascalía punctata* Schmidt; (8) *Dascalía unimaculata* Schmidt; (9) *Flatoides simulans* Schmidt; (10) *Uxantis bipunctata* Schmidt; (11) *Flatoptera minuta* Schmidt; (12) *Atracis dentata* Schmidt, female genitalia. Scale bar: 1 mm.

Measurements – Length: overall 24.0; v 0.91; f 2.41; p 1.08; m 3.82; t 21.58; pcl 6.64. Width: v 1.78; f 2.32; t 10.79. Hind leg spine formula: 1:6:8.

Junior synonym of *Bythopsyrrna circulata* Guérin-Méneville, NEW SYNONYMY.

carinulata

Pseudoryxa carinulata Schmidt, 1904a:201. [*Oryxa*, NEW COMBINATION]

Holotype ♀, Soekaranda, Januar 1894, Dohrn; Warsaw Museum.

Measurements – Length: overall 15.0; v 0.83; f 2.16; p 0.71; m 2.82; t 11.92; pcl 3.98. Width: v 1.33; f 1.41; t 3.98. Hind leg spine formula: 1:6:8.

The holotype is congeneric with type material of *Oryxa melichari* Kirkaldy. Status as a valid species, however, cannot be determined until male specimens from Sumatra are available for study of male genital characters.

carinulata

Nephesa carinulata Schmidt, 1904a:205.

Lectotype ♂, Soekaranda, Januar 1894, Dohrn; paralectotype ♀, same labels as lectotype; Warsaw Museum.

Measurements from lectotype – Length: overall 16.0; v 0.33; f 1.66; p 0.66; m 3.15; t 13.94; pcl 5.31. Width: v 1.37; f 1.83; t 6.47. Hind leg spine formula: 1:6:6.

Lectotype genitalia are illustrated (Fig. 4).

Junior synonym of *Nephesa completa* (Walker), NEW SYNONYMY.

dentata

Atracis dentata Schmidt, 1904b:376. [*Betracis*, Medler, 1988c:144].

Holotype ♀, Benue; Warsaw Museum.

Measurements – Length: overall 13.0; v 0.91; f 2.16; p 0.66; m 2.49; t 10.46; pcl 2.16. Width: v 1.00; f 1.49; t 4.15. Hind leg spine formula: 1:6:9.

Holotype genitalia are illustrated (Fig. 12).

diastola

Flatosoma diastola Schmidt, 1909:189 (New name for *Flatosoma comma* sensu Melichar, 1901:245, not *Poeciloptera comma* Walker, 1851:447).

Holotype ♀, Barabai, Z.O.Afd., Borneo [Kalimantan], A. Pool, 1883; Warsaw Museum.

Measurements – Length: overall 23.0; v 0.54; f 1.83; p 1.25; m 4.15; t 19.42; pcl lost. Width: v 1.16; f 1.33; t 11.62. Hind leg spine formula: 1:6:8.

dohrni

Bythopsyrrna dohrni Schmidt, 1904a:188.

Lectotype ♂, Sumatra, Sinabong, Dohrn, Warsaw Museum. Schmidt recorded 14 syntypes from Sinabong in the original description. Only 5 syntypes were found, as follows: Brno, ♂, ♀; Brussels, ♀; Budapest, ♀; Genova, ♀.

Measurements from lectotype – Length: overall 24.0; v 0.66; f 2.08; p 0.91; m 3.15; t 18.76; pcl 5.81. Width: v 0.91; f 1.83; t 9.96. Hind leg spine formula: 1:6:7.

An excellent colored illustration of this species was presented by Melichar, 1923, pl. 2, fig. 20. Lectotype genitalia are illustrated (Fig. 1). Comparison of characters with plesiotype genitalia illustrated by Medler, 1988a:13, fig. I, 4, showed that *dohrni* is a junior synonym of *Poeciloptera circulata* Guérin-Méneville, NEW SYNONYMY.

ecuadoriana

Doria ecuadoriana Schmidt, 1904b:357; [*Doriana*, Metcalf, 1957:114].

Holotype ♀, Ecuador, Archidona, R. Haensch; Warsaw Museum.

Measurements – Length: overall 18.0; v 0.50; f 1.66; p 0.66; m 3.49; t 16.60; pcl 4.98. Width: v 1.45; f 1.66; t 7.80. Hind leg spine formula: 2:6:6.

Large waxy white spot on tegmen not present, but when tegmen examined in transmitted light there is a clear area remnant of the spot.

Junior synonym of *Doria conspersa* (Walker), NEW SYNONYMY.

ferruginea

Flata ferruginea Schmidt, 1904b:354. [*Flatida* Metcalf, 1957:31].

Lectotype ♀, Nord-Borneo, Waterstradt, Warsaw Museum. The second syntype ♀ cited by Schmidt was not found.

Measurements – Length: overall 28.0; v 0.83; f 1.99; p 1.16; m 4.48; t 22.58; pcl 3.32. Width: v 1.00; f 0.66; t 14.11. Hind leg spine formula: 2:10:8.

Junior synonym of *Flatida montivaga* Distant, NEW SYNONYMY.

ferruginea

Ityraea ferruginea Schmidt, 1906:208.

The holotype ♀, Uélé, was reported by Synave, 1980:6, Brussels Museum.

Measurements from holotype – Length: overall 20.0; v 0.91; f 1.49; p 0.91; m 3.32; t 5.64; pcl 1.49. Width: v 0.58; f 0.29; t 2.99. Hind leg spine formula: 1:10:5.

fumata

Ormenis fumata Schmidt, 1904b:365. [*Flatormenis*, Melichar, 1923:71].

Holotype ♀, Ecuador: Palmar.

I was informed by letter from Wioletta Tomaszewska, Curator of Homoptera, Warsaw Museum, that the holotype was not found in the Schmidt collection.

griseopunctata

Phyma griseopunctata Schmidt, 1904a:197 [*Lawana*, Melichar, 1923:48].

Lectotype ♀, Sumatra, Soekaranda, Dohrn; paralectotype ♀, same data as lectotype; paralectotype ♀, same data except Sinabong; Warsaw Museum; here designated; Only 3 ♀ syntypes are known. Schmidt's citation of a ♂ from Soekaranda was a lapsus.

Measurements from lectotype – Length: overall 16.5; v 0.33; f 1.99; p 0.83; m 3.32; t 13.28; pcl 5.81. Width: v 1.16; f 1.58; t 7.30. Hind leg spine formula: 2:6:7.

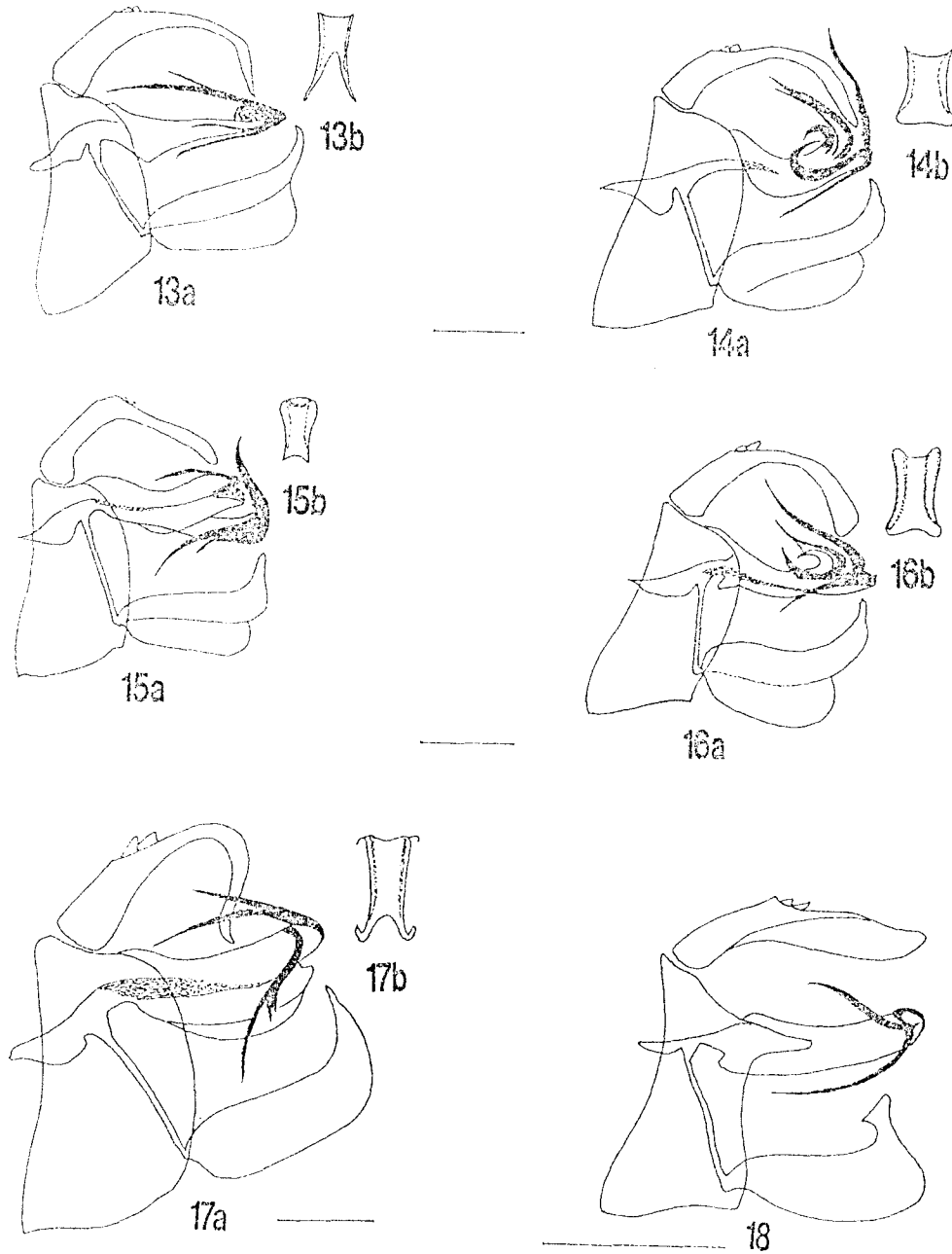
Disposition in *Lawana* by Melichar, 1923:48, and Metcalf, 1957:210, is not tenable. The lack of anal veins Y-stem in clavus, sharp median carina on pronotum, and characters of female genitalia support proper placement of this species in *Flata* Fabricius. NEW COMBINATION.

haenschi

Doria haenschi Schmidt, 1904b:356. [*Doriana* Metcalf, 1957:144]. Paralectotype ♂, Ecuador, Balzapamba, Haensch; Warsaw, here designated.

Measurements – Length: overall 19.0 v 0.50; f 1.66; p 0.83; m 3.49; t 16.93; pcl 4.98. Width: v 1.33; f 1.58; t 7.97. Hind leg spine formula: 2:6:7.

Schmidt listed 1 ♂, /3♀ in the original description. However, additional syntypes from Balzapamba were found scattered in collections, as follows: lectotype ♂, paralectotype ♀, Budapest Museum, Medler, 1993e:40,



Figs 13-18. Left lateral view of male genitalia: (13) *Phyma hyalina* Schmidt, a, genitalia, b, apex of anal segment; (14) *Phyma pura* Schmidt, a, genitalia, b, apex of anal segment; (15) *Phyma subapicalis* Schmidt, a, genitalia, b, apex of anal segment; (16) *Phyma unipunctata* Schmidt, a, genitalia, b, apex of anal segment; (17) *Walkeria melichari* Schmidt, a, genitalia, b, apex of anal segment; (18) *Paratella variegata* Schmidt. Scale bar. 1 mm.

fig 19; paralectotype ♀, Genoa Museum, Medler, 1986b:301; 3 ♀, Brno Museum (unpublished). The 750 m elevation of Balzapamba cited by Schmidt was not shown on syntype labels.

henkei

Ityraea henkei Schmidt, 1906:206. Paralectotype ♀, Kassai, Warsaw Museum, here designated. Schmidt retained this syntype when species was described.

The lectotype ♀, Kassai, is at Tervuren Museum, Medler, 1993a:270. The lectotype can be identified in the key to *Ityraea* (Synave, 1954:30), but the key is useless for the paralectotype because the specimen is so badly faded.

hyalina

Phyma hyalina Schmidt, 1904a:197. [*Lawana* Distant, 1910:326].

Lectotype ♂, Nord-Borneo, Waterstradt; Warsaw Museum, here designated. The syntype ♀ cited from Soekaranda was not found.

Measurements – Length: overall 19.0; v 0.50; f 1.99; p 0.83; m 3.32; t 16.43; pcl 6.64. Width: v 1.33; f 1.87; t 9.13. Hind leg spine formula: 2:6:7.

Lectotype genitalia are illustrated (Fig. 13a, b).

The characters of the genitalia are similar to those found in *Colobesthes guttifascia* Walker, 1851:441. The loss of black tegminal markings makes identification difficult without recourse to the genitalia.

Junior synonym of *Lawana guttifascia* (Walker). NEW SYNONYMY.

impunctata

Ormenis impunctata Schmidt, 1906:210 [*Ulundia*, Medler, 1993a:27].

The holotype ♀, Madagascar, Montagne d'Ambre, Tervuren Museum, was placed by Medler, 1993a:27, as junior synonym of *Ulundia madagascariensis* (Signoret).

incriminata

Lichena incriminata Schmidt, 1905:380.

The lectotype ♀, Madagascar, Nossi-Be, Hamburg Museum; and plesiotype ♂, Madagascar, Paris Museum, were reported by Medler, 1992b:180, fig. 8).

intermedia

Bythopsyrna intermedia Schmidt, 1913:191.

Lectotype ♀ – Malinau, nr. Mt. Molu, Nov. 4, 1910; Warsaw Museum, here designated. A response to my inquiry about the syntype ♀ from Borneo supposedly deposited at Sarawak Museum was negative.

Measurements – Length: overall 19.0; v 0.50; f 1.49; p 0.66; m 2.66; t 15.27; pcl 5.31. Width: v 0.83; f 1.00; t 6.97. Hind leg spine formula: 1:5:5.

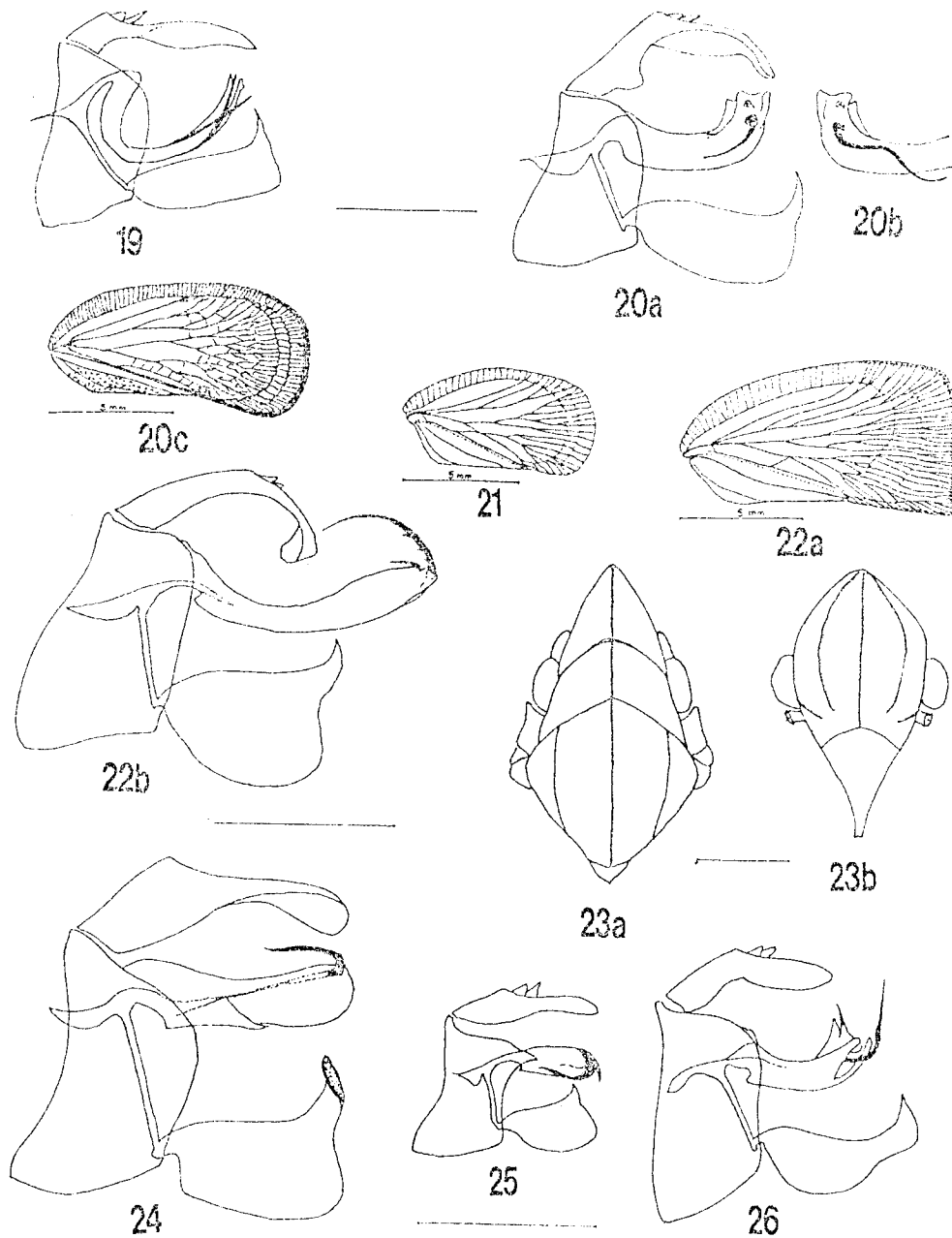
The lectotype appears to be a good species near *Bythopsyrna copulanda* Distant, but differs in the elongate frons that has relatively narrow black stripes (Fig. 3) and the ovipositor has different characters of valvulae III.

The lectotype of *intermedia* and holotype of *copulanda* are both female. Final status of the 2 species requires comparative study of genitalia of males correctly associated with the females.

kapiensis

Gyariella kapiensis Schmidt, 1924:297.

The holotype ♀, Congo belge [Zaire], Kapiiri; and plesiotype ♂, Kundelungus; Tervuren; were reported by Medler, 1993a:28. The genitalia of the plesiotype are illustrated (Fig. 26).



Figs 19-26. Left lateral view of male genitalia except where indicated otherwise: (19) *Ormenis panamensis* Schmidt; (20) *Ormenis pehlkei* Schmidt, a, genitalia, b, right lateral view of aedeagus, c, right tegmen; (21) *Ormenis prasina* Schmidt, right tegmen; (22) *Ormenis taeniata* Schmidt, a, right tegmen, b, genitalia; (23) *Euphanta luridicosta* Schmidt, a, dorsum of head and thorax, b, frontal view of head; (24) *Cerynia nigropunctulata* Schmidt; (25) *Euphanta rubromarginata*; (26) *Gyariella kapiensis* Schmidt. Scale bar. 1 mm.

luridicosta

Euphanta luridicosta Schmidt, 1904b:359.

Lectotype ♀, Queensland; Paralectotype ♀, Queensland; Warsaw Museum; here designated.

Measurements from lectotype – Length: overall 12.0; v 0.83; f 1.99; p 0.71; m 1.99; t 8.96; pcl 1.66. Width: v 1.00; f 1.20; t 4.81. Hind leg spine formula: 1:7:7.

The distinctive shape of the head and thorax (Fig. 23a) and frons (Fig. 23b) are shown.

maculata

Ormenis maculata Schmidt, 1904b:363; [*Anormenis* Melichar, 1923:69].

Holotype ♀, America mer., Schmidt; Warsaw Museum.

Measurements – Length: overall 8.5; v 0.17; f 1.08; p 0.42; m 1.74; t 6.97; pcl 2.32. Width: v 0.91; f 1.25; t 3.65. Hind leg spine formula: 2:6:7.

maynei

Gyaria maynei Schmidt, 1924:295.

The lectotype ♂, and paralectotype ♀, Congo belge [Zaire], Albertville, Tervuren Museum, were reported by Medler, 1993a:28, fig. 10).

melichari

Walkeria melichari Schmidt, 1904a:192; [*Eumelicharia*, Melichar, 1923:60].

Lectotype ♂, Soekaranda, Januar 1894, Dohrn; Warsaw Museum. A syntype ♀ at Brno with same labels as the lectotype is here designated paralectotype.

Measurements – Length: overall 25.0; v 1.00; f 2.49; p 1.16; m 3.82; t 20.92; pcl 6.97. Width: v 1.49; f 2.32; t 11.12. Hind leg spine formula: 1/2:7:8.

Lectotype genitalia are illustrated (Fig. 17a, b).

Junior synonym of *Eumelicharia radiata* Distant. NEW SYNONYMY.

minuta

Flatoptera minuta Schmidt, 1911:222.

Holotype ♂, Marapok Mtns, Sept 11 1909; Warsaw Museum. The Marapok Mts are in Sabah: 5° 04' N, 115° 36' E.

Measurements – Length: overall 13.0; v 0.42; f 1.66; p 0.83; m 2.49; t 10.96; pcl 2.49. Width: v 1.16; f 1.49; t 5.64. Hind leg spine formula: 1:6:7.

Holotype genitalia are illustrated (Fig. 11).

nigrifrons

Sephena nigrifrons Schmidt, 1905:378 [*Dworena*, Medler, 1992b:181].

The lectotype ♀, Australia; Hamburg Museum, was placed as junior synonym of *Dworena modesta* (Melichar) by Medler, 1992b:181.

The second ♀ syntype from Australia cited by Schmidt was not found.

nigropustulata

Cerynia nigropustulata Schmidt, 1904a:184.

Lectotype ♂, Sumatra, Soekaranda, Dohrn, *Cerynia griseopustulata* [sic!] Schmidt, paralectotype ♀, same labels as lectotype; Warsaw Museum, here designated.

None of the 4 ♀ syntypes cited from Sinabong in original description was found, but all 6 syntypes cited from Soekaranda were found and designated paralectotypes in the following collections: Warsaw above, -

Dresden (Medler, 1986a:113); Genova (Medler, 1986b:301); Brussels (Medler, 1987c:39); and Brno, here designated.

Measurements from lectotype and paralectotype – Length: overall 16.0, 17.0; v 0.83, 0.83; f 1.33, 1.49; p 0.66, 0.71; m 2.32, 2.32; t 13.94, 14.28; pcl 4.98, 4.15. Width: v 0.66, 0.79; f 0.66, 0.71; t 7.14, 8.30. Hind leg spine formula: 2:6:2, 2:6:3.

Lectotype genitalia are illustrated (Fig. 24).

Taxonomic note: The name *griseopustulata* on labels was replaced by *nigropustulata* in Schmidt's publication.

panamensis

Ormenis panamensis Schmidt, 1904b:364; [*Flatormenis*, Melichar, 1923:71].

Lectotype ♂, Panama, R Haensch; Warsaw; here designated.

The ♀ syntype from Panama cited by Schmidt was not found.

Measurements – Length: overall 9.0; v 0.08; f 1.08; p 0.42; m 2.16; t 6.97; pcl 1.83. Width: v 1.33; f 1.83; t 3.49. Hind leg spine formula: 2:7:9.

Lectotype genitalia are illustrated (Fig. 19). The species also was illustrated by Metcalf, 1938:399, pls 3, 12, 23.

pehlkei

Ormenis pehlkei Schmidt, 1904b:366; [*Anormenis*, Melichar, 1923:690].

Holotype ♂, Colombia, Pehlke; Warsaw Museum.

Measurements – Length: overall 9.5; v 0.17; f 1.16; p 0.42; m 1.99; t 7.97; pcl 3.15. Width: v 1.00; f 1.16; t 3.65. Hind leg spine formula: 2:6:7.

Illustrations of the holotype genitalia (Fig. 20a, b) and tegmen (Fig. 20c) show characters that are similar to those found in examples of *Ormenooides* Melichar.

prasina

Ormenis prasina Schmidt, 1904b:370. [*Melicharia*, Melichar, 1923:71].

Holotype ♀, Ceylon: Warsaw Museum.

Measurements – Length: overall 7.25; v 0.17; f 0.87; p 0.33; m 1.49; t 6.14; pcl 1.99. Width: v 0.83; f 1.00; t 3.32. Hind leg spine formula: 2:6:7.

Tegmen of the holotype is illustrated (Fig. 21). I have found no comparable specimen in material known to me in Ceylon. However, the close similarity between tegmina of *prasina* and *pehlkei* (Fig. 20) suggests that *prasina* may actually be a mislabeled specimen from South America.

punctata

Dascalia punctata Schmidt, 1904b:373; [*Paradascalia*, Metcalf, 1957:448].

Holotype ♂, Para, 30.I.92; Warsaw Museum.

Measurements – Length: overall 11.5; v 0.17; f 1.41; p 0.58; m 2.49; t 9.30; pcl 3.32. Width: v 1.08; f 1.41; t 4.65. Hind leg spine formula: 2:6:6.

Holotype genitalia are illustrated (Fig. 7).

pura

Phyma pura Schmidt, 1904a:196; [*Lawana*, Melichar, 1923:48].

Lectotype ♂, Soekaranda, Januar 1894, Dohrn; Warsaw Museum; here designated. Also, paralectotype ♀ (without abdomen) with same labels as lectotype; Brno; here designated. Two other syntypes, ♂ and ♀, cited by Schmidt were not seen.

Measurements – Length: overall 17.0; v 0.50; f 1.83; p 0.66; m 3.32; t 14.11; pcl 5.81. Width: v 1.16; f 1.49; t 7.64. Hind leg spine formula: 2:7:7.

Lectotype genitalia are illustrated (Fig. 14a, b).

raapi

Bythopsyrna raapi Schmidt, 1912b:96.

The holotype ♀, Nias Island, Genova Museum, was reported by Medler, 1986b:304.

There is probability that the holotype represents a specimen of *circulata* Guérin with bleached tegmina.

rabbowi

Bythopsyrna rabbowi Schmidt, 1904b:355.

Holotype ♀, Java; Warsaw Museum.

Measurements – Length: overall 23.0; v 0.83; f 2.08; p 0.91; m 3.49; t 18.59; pcl 5.31. Width: v 1.45; f 1.74; t 9.46. Spine formula: 1:6:7.

Junior synonym of *Bythopsyrna circulata* Guérin, NEW SYNONYMY.

rubra

Siphanta rubra Schmidt, 1904b:358.

Lectotype ♀, Queensland; Paralectotype ♀, Queensland; Warsaw Museum, here designated.

Measurements on lectotype – Length: overall 8.0; v 0.21; f 1.00; p 0.50; m 1.83; t 6.47; pcl 1.83. Width: v 0.62; f 0.83; t 3.32. Hind leg spine formula: 1:7:9.

Status of *S. rubra* was reviewed by Fletcher, 1985:38, figs 81–82, 121, 273–276. Based on study of numerous specimens in Queensland, and knowledge of male and female genitalia, the species was distinguished from closely related *subgranulosa* Kirkaldy.

rubromarginata

Euphanta rubromarginata Schmidt, 1904b:360.

Holotype ♂, Queensland; Warsaw Museum.

Measurements – Length: overall 10.0; v 0.58; f 1.58; p 0.58; m 1.66; t 7.47; pcl 1.33. Width: v 0.58; f 0.83; t 4.32. Hind leg spine formula: 1:8:9.

Holotype genitalia are illustrated (Fig. 25).

The genital characters confirm that Schmidt was correct in original assignment of this species to *Euphanta*. Distant, 1910:308, and all subsequent writers erred in associating the name with *Colgar peracutum* (Walker).

Junior synonym of *Euphanta acuminata* Melichar, NEW SYNONYMY.

simulans

Flatoides simulans Schmidt, 1904b:378; [*Flatoidinus*, Melichar, 1923:117, in error].

Holotype ♂ – Ecuador, Balsapamba, Haensch; Warsaw Museum.

Measurements – Length: overall 14.0; v 0.79; f 1.83; p 0.66; m 2.32; t 10.79; pcl 2.66. Width: v 0.83; f 1.16; t 4.81. Hind leg spine formula: 2:6:6.

Holotype genitalia are illustrated (Fig. 9).

Flataloides simulans (Schmidt), NEW COMBINATION.

Taxonomic note: *Flataloides* Metcalf may be distinguished from *Flatoidinus* Melichar by the following key:

- Postocular ridge of pronotum extending to antero-ventral margin; vertex with transverse intergenal carina forming anterior margin of plates divided by median longitudinal suture. *Flatoidinus*
- Without postocular ridge, postocular eminence conelike; vertex with elongate median longitudinal suture, but without plates. *Flataloides*

subapicalis

Phyma subapicalis Schmidt, 1904b:361. [*Lawana* Melichar, 1923:48].

Holotype ♂, Amboina, S., Stevens; Warsaw Museum.

Measurements – Length: overall 15.0; v 0.66; f 1.83; p 0.62; m 2.82; t 11.92; pcl 5.15. Width: v 1.16; f 1.41; t 6.47. Hind leg spine formula: 2:8:7.

Holotype genitalia are illustrated (Fig. 15a, b).

Based on comparison of male genitalia, the following synonymy applies:

Colobesthes exaltata Walker, 1862:312, sensu Medler 1990a:142, fig. 18 [*Lawana*].

Phyma candida var. *inornata* Melichar, 1902:47, sensu Medler 1986c:330, fig. 24, NEW SYNONYMY.

Phyma subapicalis Schmidt, NEW SYNONYMY.

sumatrana

Bythopsyrrna sumatrana Schmidt, 1904a:191.

Lectotype ♂, Sumatra, Sinabong, Dohrn, Warsaw Museum;

Paralectotype ♀, Sumatra: Soekaranda; Brno Musuem, here designated. Only 2 of 4 syntypes were found.

Measurements from lectotype – Length: overall 16.5; v 0.50; f 1.49; p 0.58; m 2.66; t 13.11; pcl 5.64. Width: v 1.00; f 1.16; t 6.64. Spine formula: 1:6:6.

Lectotype genitalia are illustrated (Fig. 2b) This species may be distinguished from related *copulanda* by the different pattern of black stripes on the frons (Fig. 2a). Also, it is the only species known with costal margin white from base to apical inner crescent of tegmen.

taenia

Uxantis taenia Schmidt, 1904a:206. [*Atracis*, Medler, 1988a:18].

Holotype ♀, Soekaranda, Januar 1894, Dohrn; Warsaw Museum. Schmidt lapsed in citing a male holotype in the original description.

Measurements – Length: overall 12.0; v 0.33; f 1.25; p 0.58; m 1.66; t 8.96; pcl 3.32. Width: v 0.83; f 1.25; t 4.15. Hind leg spine formula: 1:5:6.

taeniata

Ormenis taeniata Schmidt, 1904b:368; [*Melicharia*, Melichar, 1923:71].

Lectotype ♂, paralectotype ♀, Soekaranda, Januar 1894, Dohrn; Warsaw Museum, here designated.

Measurements – Length: overall 10.0, 11.0; v 0.91, 1.00; f 1.16, 1.33; p 0.66, 0.66; m 1.99, 2.16; t 8.13, 6.63; pcl 3.65, 3.49. Width: v 0.91, 1.00; f 1.16, 1.25; t 4.65, 4.48. Hind leg spine formula: 2:7:7, 2:6:7.

Lectotype genitalia are illustrated (Fig. 22b). The species does not belong in *Melicharia*. It is transferred to *Paranotus* Karsch because of shape of tegmen (Fig. 22a), lack of Y-stem of anal veins at apex of clavus, red stripes on pronotum, and tegmina with caducity. NEW COMBINATION.

tricolor

Sepheia tricolor Schmidt, 1904b:372

Holotype ♀, Java occident, Mons Gede, 4000', 1898, Fruhstorfer; Warsaw Museum.

Measurements – Length: overall 13.0; v 0.33; f 1.41; p 0.50; m 2.16; t 10.79; pcl 1.99. Width: v 1.16; f 1.49; t 5.81. Hind leg spine formula: 1:5:6.

udei

Bythopsyrrna udei Schmidt, 1904a:189.

The holotype ♀ of this species no longer exists, being represented only by an empty pin and labels, according to information by letter from Wioletta Tomaszewska, Curator of Homoptera, Warsaw Museum.

Taxonomic note: Placed near *dohrni* when described. Both *udei* and *dohrni* were recorded from Sinabong. The former with length of 23 mm was described as slightly smaller and less robust, but closely similar in markings to *dohrni* and *circulata*. Paralectotype females of *dohrni* measured 26, 26 and 27 mm respectively, and the lectotype was 24 mm.

I concluded that slight differences in sizes and minor variations in markings did not justify further search for female and male specimens that might be assigned to this taxon. It is reasonable to expect that males of such specimens, if found, would have the same genital characters as *circulata*. Therefore, the name *udei* is here disposed as a junior synonym of *Bythopsyrna circulata* Guérin-Méneville, NEW SYNONYMY.

unimaculata

Dascalia unimaculata Schmidt, 1904b:374. [*Leptodascalia*, Melichar, 1923:102].

Holotype ♂, Ecuador, Balzapamba, R Haensch; Warsaw Museum.

Measurements – Length: overall 10.0; v 0.25; f 1.16; p 0.50; m 2.16; t 8.30; pcl 2.99. Width: v 1.00; f 1.33; t 3.82. Hind leg spine formula: 2:7:9.

Holotype genitalia are illustrated (Fig. 8).

unipunctata

Phyma unipunctata Schmidt, 1904a:196. [*Lawana*, Jacobi, 1915:172].

Lectotype ♂, Soekaranda, Januar 1894, Dohrn; Warsaw Museum, here designated.

Measurements from lectotype – Length: overall 15.5; v 0.50; f 1.66; p 0.75; m 2.82; t 12.62; pcl 4.98. Width: v 1.16; f 1.49; t 6.81. Hind leg spine formula: 2:7:7.

Lectotype genitalia are illustrated (Fig. 16a, b).

Taxonomic note. Schmidt recorded 13 ♂, 12 ♀ from Sumatra: Soekaranda and Sinabong; and 2 ♂ from Java: Liangagas and Sukabumi. Only 9 syntypes from Sumatra were found, as follow. 2 ♂, Soekaranda, Dresden (Medler, 1986a:113); 2 ♂, Soekaranda, Sinabong, Genova (Medler, 1986b:304); 2 ♂, Soekaranda, Brussels (Medler, 1987c:40); 2 ♀, same labels as lectotype, here designated, Brno Museum. Locations of 16 syntypes from Sumatra and 2 from Java are unknown.

L. unipunctata was considered the same as *L. partita* Melichar by Medler, 1986a:113.

unispinosa

Ormenis unispinosa Schmidt, 1906:212; [*Chaetormenis*, Melichar, 1923:74, in error].

The holotype ♀, Barikiwa, Donde-Gebiet, Hamburg Museum, and plesiotype ♂, Mocambique, Paris Museum, were reported by Medler, 1992:182, fig. 6, and Medler, 1993b:58.

variegata

Paratella variegata Schmidt, 1904b:370 [*Neomelicharia*, Medler, 1986a:113].

Lectotype ♂, Obi, 5.1902; Warsaw Museum, here designated.

Measurements from lectotype – Length: overall 12.0; v 0.29; f 1.45; p 0.58; m 2.16; t 9.79; pcl 2.66. Width: v 1.08; f 1.33; t 5.48. Hind leg spine formula: 1:6:6.

Lectotype genitalia are illustrated (Fig. 18).

Paralectotypes from Obi were reported at Dresden (Medler, 1986a:113), and Genova (Medler, 1986b:304). Not found were ♂, 1 ♀.

violacea

Bythopsyrna violacea Schmidt, 1904a:209.

Holotype ♀, Nord-Borneo, Waterstradt; Warsaw Museum.

Measurements – Length: overall 16.0; v 0.50; f 1.16; p 0.50; m 1.99; t 13.28; pcl 4.32. Width: v 0.75; f 0.87; t 6.31. Spine formula: 0:6:7.

Junior synonym of *Bythopsyrna illocata* Melichar, NEW SYNONYMY.

virescens

Flatoptera virescens Schmidt, 1904b:358

Holotype ♀, Nord-Borneo, Waterstradt; Warsaw Museum.

Measurements – Length: overall 16.0; v 0.17; f 1.83; p 1.00; m 3.32; t 13.62; pcl 2.99. Width: v 1.49; f 1.74; t 6.64. Hind leg spine formula: 1:7:6.

viridis

Conflata viridis Schmidt, 1912a:364. [*Flatidissa* Medler, 1993a:35].

The holotype ♂, Myumbe, Cabra, Tervuren Museum, was reported to be a junior synonym of *Flatidissa fuscigera* (Haglund) by Medler, 1993a:35, fig. 1.

waterstradti

Phyma waterstradti Schmidt, 1904a:211. [*Lawana*, Melichar, 1923:49].

Lectotype ♀, Nord-Borneo, Waterstradt; Warsaw Museum. The second syntype from N. Borneo was not found.

Measurements – Length: overall 19.0; v 0.50; f 1.99; p 0.83; m 3.32; t 15.27; pcl 6.64. Width: v 1.33; f 1.66; t 8.63. Hind leg spine formula: 2:6:7.

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