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**Types of Flatidae (Homoptera) XVIII.
Lectotype designations for FOWLER and MELICHAR type
specimens in the Museum of Natural History in Vienna,
with 2 new genera and a new species.**

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(With 19 Figures)

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S u m m a r y

Lectotypes and paralectotypes are designated for species of Flatidae in the Museum of Natural History in Vienna, described by FOWLER and MELICHAR. The genitalia of holotype and lectotype males are illustrated. *Samcerus serendipus*, gen. et sp. nov., are described for *Dascalia nietoi* sensu MELICHAR, not FOWLER. *Metcracis* new genus, with type species *Elidiptera humeralis* WALKER, is erected for the following New World species of *Atracis* Auctorum: *basistigma* WALKER 1858; *collecta* MELICHAR 1902; *laevior* FOWLER 1900; *lauta* MELICHAR 1902; *leucophaea* MELICHAR 1902; *metcalfi* O'BRIEN 1987; *pollutus* FOWLER 1900; *quadripunctulus* FOWLER 1900; *scaber* FOWLER 1900; *simillimus* FOWLER 1900; and *Phalaenomorpha sordida* STÅL 1864. Other New Combinations are *Dascalia nietoi* FOWLER = *Deocerus* METCALF, *Poeciloptera dominicensis* SPINOLA = *Decipha* MEDLER, *Flatoides scabrosus* MELICHAR = *Flataloides* METCALF; *Ormenis inferior* FOWLER = *Flatormenis*.

New Synonymies (junior synonym first) are as follows: *Cryptoflata zielensis* SYNAVE = *Poeciloptera dominicensis* SPINOLA; *Dascalia contorta* MELICHAR = *Dascalia sinuatipennis* STÅL; *Flatoides intermedius* MELICHAR = *Ricania corticina* BURMEISTER; New Subspecies Status is given to *Flatida rosea crocea* (MELICHAR).

Z u s a m m e n f a s s u n g

Von den folgenden im Naturhistorischen Museum Wien aufbewahrten Flatiden Arten werden Lectotypen und Paralectotypen oder zusätzliche Paralectotypen designiert: *Nephesa antica* SIGNORET, *Carthaeomorpha breviceps* MELICHAR, *Flata championi* FOWLER, *F. rubra* var. *crocea* METCALF, *F. farinosa* MONTROUZIER, *F. rotundior* FOWLER, *Flatoides demissus* MELICHAR, *F. distantii* MELICHAR, *F. scabrosus* MELICHAR, *Ormenis distincta* MELICHAR, *O. dolabrata* FOWLER, *O. inferior* FOWLER, *O. similis* MELICHAR, *Cerynia fulgida* MELICHAR, *Poekilloptera phalaenoides* MELICHAR, *Dascalia nietoi* FOWLER, *Phyma optata* MELICHAR und *Atracis subtilis* MELICHAR. Die männlichen Genitalapparate zahlreicher Typen werden abgebildet. *Samcerus serendipus* gen. et sp. nov. (= *Dascalia nietoi* sensu MELICHAR, nec FOWLER) wird neu beschrieben. Die Gattung *Metcracis* gen. nov. (Typusart *Elidiptera*

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humeralis WALKER) wird für die folgenden neuweltlichen Arten der Gattung *Atracis* auct. neu errichtet: *basistigma* WALKER, *collecta* MELICHAR, *laevior* FOWLER, *lauta* MELICHAR, *leucophaea* MELICHAR, *metcalfi* O'BRIEN, *pollutus* FOWLER, *quadripunctulus* FOWLER, *scaber* FOWLER und *simillimus* FOWLER. *Phalaenomorpha sordida* STÅL gehört ebenfalls in diese neue Gattung.

Folgende neue Kombinationen werden erstellt: *Deocerus nietoi* FOWLER, comb. nov. (*Dascalina*), *Decipha dominicensis* SPINOLA, comb. nov. (*Poeciloptera*), *Flataloides scabrosus* MELICHAR, comb. nov. (*Flatoides*) und *Flatormenis inferior* FOWLER, comb. nov. (*Ormenis*). Folgende Synonyme werden erkannt: *Poeciloptera dominicensis* SPINOLA (= *Cryptoflata zielensis* SYNAVE, syn. nov.), *Dascalina sinuatipennis* STÅL (= *Dascalina contorta* MELICHAR, syn. nov.) und *Ricania corticina* BURMEISTER (= *Flatoides intermedius* MELICHAR). Den neuen Status einer Subspecies erhält *Flatida rosea crocea* (MELICHAR), stat. nov.

Introduction

This article is my second report on types in the Museum of Natural History in Vienna. In the first report (MEDLER, 1987), species distributed in the Oriental Region were reviewed. This report in most cases treats species found in Africa and the New World.

To provide comparable morphometric data, all measurements are reported 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). These parameters were illustrated by MEDLER (1991b, fig. 1). The hind leg spine formula gives sequence of metatibial lateral spine (s): metatibial apical spines: matatarsal I basal spines.

Label data are recorded according to their sequence on labels, except that transcription of the "Coll. Nat.-Mus. Wien" label attached to all specimens is omitted. In a few cases multiple labels are numbered (1), (2), etc. to indicate their sequence on a pin from top to bottom. My hand printed red lectotype, yellow paralectotype or blue plesiotype label was attached to each specimen respectively designated. Male genitalia were preserved in glycerine in microvials attached to the respective pin.

Most species of Flatidae can be identified accurately by study of characters of the male genitalia. Therefore, lectotype males were designated wherever possible and the genitalia illustrated. If the primary type was a female, or syntype males were not available, then a representative male was selected as a plesiotype for illustration and measurement purposes and a blue plesiotype label attached to the specimen. Although without taxonomic status, the term plesiotype accurately identifies comparative material for future reference.

Alphabetical list of types

Each species entry includes original generic name-combination, author and publication date. In addition, the currently valid generic combination is cited when different from the original combination.

antica, *Nephesa*, SIGNORET, 1860, p. 199; *Latois antica*, STÅL, 1866, p. 248.

Lectotype ♀, Madagascar, SIGNORET Collection, with SIGNORET and MELICHAR det labels; here designated.

Plesiotype ♂, Madagascar, Tulear Prov., Andranovory, 200 m, 24. III. 1968, K.M.G. & P.D., Brit. Mus. 1968–321.

Measurements from plesiotype. Length: overall 8.0; v 0.33; f 1.08; p 0.29; m 1.66; t 6.64; pcl 1.99. Width: v 0.83; f 0.95; t 3.32. Hind leg spine formula: 1:6:8. The plesiotype genitalia are illustrated (Fig. 18).

brasiliensis, *Poeciloptera*, SPINOLA, 1839, p. 438; *Monoflata brasiliensis*, MELICHAR, 1923, p. 76.

Holotype ♀, Brazil, Buquet, SPINOLA Collection, Turin Museum.

The ♀ specimen from Espírito Santo, Brazil, SIGNORET Collection, that was cited as “type” by MELICHAR (1902, p. 81), does not have status as a valid syntype.

breviceps, *Carthaeomorpha*, MELICHAR, 1902, p. 34.

Lectotype ♀, Brazil, Lacerda, SIGNORET Collection; here designated. The syntype ♂ from Bahia that was cited by MELICHAR was presumably deposited in the Genf [Geneva] Museum. Its status is uncertain, however, as my letter of inquiry to The Museum d’Histoire Naturelle, Geneva, was not answered.

Measurements from lectotype. Length: overall 14.5; v 0.50; f 1.83; p 0.66; m 2.99; t 12.28; pcl 4.15. Width: v 1.29; f 1.99; t 7.14. Hind leg spine formula: 2:6:7.

championi, *Flata*, FOWLER 1900, p. 51, pl. VII, fig. 10; *Hesperophantia championi*, MELICHAR, 1923, p. 53.

Lectotype ♂, paralectotypes 2 ♀, Panama, Volcán de Chiriquí, 2–3000 ft, Champion; here designated. In addition to the above, other syntypes are known, as follows: 2 paralectotypes, Bugaba and Volcán de Chiriquí at Brussels (Synave, 1980, No. 5); paralectotypes ♀ Bugaba and ♂ Volcán de Chiriquí at Stockholm; 5 paralectotypes, Bugaba, David and Volcán de Chiriquí (Panama), Cerro Zunil and Zapote (Guatemala) at London. The syntype from David illustrated by FOWLER is a ♀ in the London Museum with the right tegmen missing.

Measurements from lectotype. Length: overall 13.0; v 1.00; f 2.16; p 0.62; m 2.49; t 10.29; pcl 3.32. Width: v 1.08; f 1.33; t 6.14. Hind leg spine formula: 2:6:9. The lectotype genitalia are illustrated (Fig. 4).

collecta, *Atracis*, MELICHAR 1902, p. 194.

Holotype ♂, Brazil, SIGNORET Collection; here designated. The holotype genitalia are illustrated (Fig. 7). The anal segment is greatly enlarged apically; style with deep notch on dorso-apical margin.

Measurements from holotype. Length: overall 13.0; v 0.83; f 1.99; p 0.83; m 2.32; t 9.96; pcl 3.15. Width: v 0.79; f 1.33; t 4.65. Hind leg spine formula: 1:6:6.

Atracis STÅL (1866, p. 250), with type species *Flata pyralis* GUÉRIN-MÉNÉVILLE, has Old World distribution mainly in New Guinea, Indonesia and the Philippines. MEDLER (1988a) proposed *Staliana*, with type species *Elidiptera inaequalis* WALKER, 1858, as the replacement name for the species cataloged in *Atracis* by METCALF (1957). Probably most Oriental species will prove to be congeners of *inaequalis*. The African species of *Atracis* were given new generic

combinations by MEDLER (1988b). In the New World, a new generic placement is needed for about a dozen species with superficial resemblance to *Flataloides* METCALF, but distinguished by presence of one metatibial lateral spine. The generic name *Metcracis* MEDLER, with *Elidiptera humeralis* WALKER 1858 as type species, here designated, is proposed for these species; namely, *Elidiptera basistigma* WALKER 1858; *Atracis collecta* MELICHAR 1902; *Flatoides laevior* FOWLER 1900; *Atracis lauta* MELICHAR 1902; *Atracis leucophaea* MELICHAR 1902; *Atracis metcalfi* O'BRIEN 1987; *Flatoides pollutus* FOWLER 1900; *Flatoides quadripunctulus* FOWLER 1900; *Flatoides scaber* FOWLER 1900; *Flatoides simillimus* FOWLER 1900; and *Phalaenomorpha sordida* STÅL 1864.

contorta, *Dascalia*, MELICHAR 1902, p. 149; METCALF, 1957, p. 452; SYNAVE, 1980, p. 3, No. 8. Lectotype ♂ – Botafogo [Sao Paulo], Brazil, Brussels Museum. The lectotype lacks head and abdomen.

The holotype designation by SYNAVE was in error, because a ♂ syntype in the Halle Museum also was cited by MELICHAR. A plesiotype ♂, Brazil, KAMMERL., was selected from a series of 3 specimens determined by MELICHAR, but not listed in the original publication.

Measurements from plesiotype. Length: overall 9.0; v 0.42; f 1.16; p 0.42; m 1.99; t 7.47; pcl 2.32. Width: v 0.91; f 1.16; t 3.49. Hind leg spine formula: 2:6:7. The plesiotype genitalia are illustrated (Fig. 1). The characters shown are the same as found in *Dascalia sinuatipennis* (STÅL). On this basis *contorta* is here designated as the junior synonym. NEW SYNONYMY.

corniculatus, *Neocerus*, MELICHAR 1902, p. 132, pl. VII, fig. 19; *Deocerus corniculatus*, METCALF & BRUNER 1948, p. 74.

Lectotype ♂, Venezuela, Puerto Cabello; here designated. The syntype that appeared to have been illustrated by MELICHAR was selected as lectotype.

Measurements from lectotype. Length: overall 9.5; v 0.25; f 1.49; p 0.42; m 2.16; t 7.80; pcl 2.16. Width: v 1.08; f 1.37; t 3.49. Hind leg spine formula: 2:6:7.

The genitalia are illustrated (Fig. 3). The ventral process arising from the apex of the aedeagus is forked, and one branch is abruptly recurved caudad. The same distinctive character was found in genitalia of the paralectotype from Caracas, Venezuela, in the Copenhagen Museum. Both syntypes had 2 metatibial spines as given in the original description.

The treatment of this species in subsequent literature is not correct. MELICHAR (1923) attributed 1 metatibial spine to the species, and incorporated this character state in his key for separation of the monobasic genus *Neocerus*. This error was perpetuated by METCALF and BRUNER (1948) when they named *Deocerus* as the replacement name for preoccupied *Neocerus* and also used 1 metatibial spine as a key character for its identification. See discussion under *Dascalia nietoi* FOWLER for my interpretation of MELICHAR's contradictory action in publishing the one-spine character.

crocea, *Flata rubra* var., MELICHAR 1901, p. 210; *Flatida rosea* var. *crocea*, METCALF, 1957, p. 48.

Paralectotype ♂, Madagascar, Fairmaire; paralectotypes 5 ♀, Madagascar, lots no. 111, 169, 346, 680, 893, respectively; here designated.

Flatida rosea crocea is given subspecies status to validate the trinomial name pending future revision of the genus.

decora, *Dascalia*, MELICHAR 1902, p. 150; *Leptodascalia decorata*, MELICHAR, 1923, p. 102.

Syntype(s) from Belmonte [Brazil, Bahia] cited by MELICHAR were not found in the Vienna Museum.

delegatus, *Flatoides*, MELICHAR, 1902, p. 216, pl. IV, fig. 28; *Phalaenomorphia delegata*, JACOBI, 1915, p. 178.

Syntypes from South America were not found in the Vienna Museum. I was informed by P. LAUTERER that a ♂ and ♀ syntype from Peru are in MELICHAR's collection in the Brno Museum.

demissus, *Flatoides*, MELICHAR 1902, p. 212, pl. VIII, fig. 1; *Flatoidessa demissa*, MELICHAR, 1923, p. 115.

Lectotype ♂, Ins. Johana, Comoren, 1879, *demissus* det MELICHAR. Paralectotype ♀, same label data as lectotype; here designated.

Measurements from lectotype and paralectotype. Length: overall 11.5, 14.0; v 0.66, 0.91; f 1.66, 1.99; p 0.83, 0.83; m 2.16, 2.24; t 9.63, 10.79; pcl 2.49, 4.98. Width: v 0.83, 1.00; f 1.16, 1.33; t 4.65, 4.98. Hind leg spine formula: 2:6:7, 2:6:7.

The lectotype genitalia are illustrated (Fig. 17).

This species belongs to an undescribed new genus that differs from *Flatoidessa* MELICHAR in characters of the head, hind leg spine formula, and tegmina venation.

distanti, *Flatoides*, MELICHAR 1902, p. 202; *Flatoidessa distanci*, MELICHAR, 1923, p. 115.

Lectotype ♂ – Madagascar, Fort Dauphin, Sikora, *Distanti*, det MELICHAR.

Measurements from lectotype. Length: overall 17.0; v 1.16; f 2.49; p 1.00; m 2.49; t 13.28; pcl 2.66. Width: v 0.83; f 1.49; t 4.98. Hind leg spine formula: 2:6:9.

The lectotype genitalia are illustrated (Fig. 19).

distincta, *Ormenis*, MELICHAR 1902, p. 82. *Ormenoides distincta*, MELICHAR, 1923, p. 73.

Lectotype ♀ – Brazil, Collection SIGNORET, with SIGNORET and MELICHAR determination labels. A syntype ♀ from Corrientes is also in the Copenhagen Museum.

dolabrata, *Ormenis*, FOWLER, 1900, p. 56, pl. VII, fig. 21; *Flatormenis dolabrata*, MELICHAR, 1923, p. 71.

Lectotype ♂, paralectotype ♀, Mexico, Cornuvacca [sic], BILIMEK, 1871; paralectotype ♀, Mexico, Miacatlan, BILIMEK, 1871; here designated. Tegmina of the last named female have lost the precostal margins along the fracture line of vein C. I have not yet examined the syntype from Chilpancingo that was figured by FOWLER.

Measurements from lectotype and paralectotype. Length: overall 8.5, 9.0; v 0.08, 0.08; f 1.00, 1.16; p 0.33, 0.33; m 1.99, 2.16; t 6.64, 7.30; pcl 2.32, 2.32. Width: v 1.25, 1.33; f 1.49, 1.58; t 2.82, 3.15. Hind leg spine formula: 2:6:10, 2:7:8.

The lectotype genitalia are illustrated (Fig. 9). The shape of the aedeagus conforms to that known for several species in the genus *Flatormenis*.

dominicensis, *Poeciloptera*, SPINOLA, 1839, p 439; *Cryptoflata dominicensis*, MELICHAR, 1902, p. 23.

Holotype ♂, St. Domingo, SIGNORET Collection, *dominicensis* det. A. & S, det. SIGNORET, det. MELICHAR. The holotype has completely lost the green color described by SPINOLA, and now shows an unnatural dark metallic grey appearance. Characters of the genitalia (Fig. 5) are indistinguishable from those of *Cryptoflata zielensis* SYNAVE, the type species of *Decipha* MEDLER (1988b). As the taxon *Decipha* is restricted to Africa, the West Indies locality attributed to the holotype is undoubtedly an error in labeling.

Measurements from holotype. Length: overall 14.0; v 0.17; f 1.83; p 1.16; m 3.49; t 12.12; pcl 3.49. Width: v 1.16; f 1.49; t 6.64. Hind leg spine formula: 2:7:7.

Poeciloptera dominicensis SPINOLA, is here designated as the senior synonym of *Cryptoflata zielensis* SYNAVE, NEW SYNONYMY.

It is unfortunate that *dominicensis* replaces *zielensis* as type species of *Decipha*, The NEW COMBINATION is inappropriate in relation to the African distribution of the genus.

farinosa, *Flatta* [sic], MONTROUZIER 1861, p. 73; *Cromnella farinosa*, FENNAH, 1960, p. 105, fig. 563–566,

Lectotype ♂ (no abdomen), Lifu, SIGNORET Collection, det. *farinosa* SIGNORET, det. *farinosa* MELICHAR; here designated. MONTROUZIER's very brief description gave no information on sex, but MELICHAR (1902, p. 59) cited the lectotype as male. It is not known if other syntypes exist. Measurements from lectotype. Length: overall 8.5; v 0.33; f 1.16; p 0.46; m 1.49; t 6.64; pcl 2.32. Width: v 0.79; f 0.91; t 3.65. Hind leg spine formula: 1:7:8.

fulgida, *Cerynia*, MELICHAR 1901, p. 221; MEDLER, 1991a, p. 30, fig. 23.

Lectotype ♂, S. Celebes, Semanga, Nov. 1895, FRUHSTORFER; paralectotype ♂, S. Celebes, Patahuang, Jan. 1896, FRUHSTORFER. The lectotype was designated and the genitalia illustrated by MEDLER (1991a). MELICHAR (1901) did not give depository museums for syntypes listed from Bantimoerang, Nord-und Sudcelebes, Semanga and Bua Kraeng. However, the specimens from Semanga and Patahuang probably are valid syntypes.

fulvus, *Flatoides*, MELICHAR 1902, p. 213; *Flatoidessa fulva*, MELICHAR, 1923, p. 115.

Holotype ♀, Madagascar, SIGNORET Collection, det. MELICHAR.

Measurements from holotype. Length: overall 14.0; v 0.83; f 2.16; p 0.91; m 2.41; t 12.45; pcl 4.65. Width: v 0.91; f 1.37; t 5.31. Hind leg spine formula: 2:6:7.

This species belongs to an undescribed new genus that differs from *Flatoidessa* MELICHAR in characters of the head, hind leg spine formula, and tegmen venation.

fumata, *Dascalia*, MELICHAR 1902, p. 153; *Flatoidinus fumata*, MELICHAR, 1923, p. 117.

Holotype ♂, Puerto Rico, SIGNORET Collection.

Measurements from holotype. Length: overall 7.0; v 0.09; f 0.83; p 0.33; m 1.49; t 5.96; pcl 1.83. Width: v 0.79; f 0.87; t 2.66. Hind leg spine formula: 2:6:6.

The genitalia characters illustrated (Fig. 2) are different from those of "*Flatoidinus fumatus*" illustrated by CALDWELL (1951, pl. 47, fig. 5). CALDWELL's misidentified specimen has genitalia characters that are close to *Flatoides lichenosus* MELICHAR, and may represent that species.

indutus, *Atracodes*, MELICHAR 1902, p. 225, pl. VIII, fig. 7;

Holotype ♂, St. Thomas, SIGNORET Collection.

Measurements from holotype. Length: overall 11.5; v 0.83; f 1.99; p 0.91; m 2.16; t 8.63; pcl 2.32. Width: v 0.71; f 1.29; t 3.65. Hind leg spine formula: 3:6:8.

The genitalia are illustrated (Fig. 6). The black lines on tegmina of the holotype were not shown clearly in MELICHAR's illustration.

inferior, *Ormenis*, FOWLER 1900, p. 58, pl. VII, fig. 25; *Anormenis inferior*, MELICHAR, 1923, p. 69

Lectotype ♂, paralectotypes 3 ♀, Mexico, SIGNORET Collection; paralectotypes 1 ♂, 1 ♀, BILIMEK; here designated.

Measurements from lectotype. Length: overall 8.5; v 0.13; f 1.00; p 0.33; m 1.83; t 6.97; pcl 2.32. Width: v 1.08; f 1.29; t 3.32. Hind leg spine formula: 2:7:8.

Genitalia of the lectotype are illustrated (Fig. 8). The aedeagus has the same crescent shape as found in *Ormenis squamulosa* FOWLER, the type species of *Flatormenis* MELICHAR. Accordingly, inferior is removed from present assignment to *Anormenis* MELICHAR and transferred to *Flatormenis*. New combination.

infuscata, *Ormenis*, STÅL, 1864, p. 55; *Melormenis infuscata*, METCALF, 1957, p. 332.

Holotype ♂ – (1) Mexico/coll. SIGNORET; (2) *infuscata*/det SIGNORET; (3) *Ormenis/infuscata*/STÅL; (4) *infuscata*/det. MELICHAR. Label data suggests that either STÅL lapsed in citing a ♀, or there was subsequent mislabeling.

Measurements from holotype. Length: overall 7.0; v 0.08; f 0.95; p 0.33; m 1.66; t 5.81; pcl 1.99. Width: v 0.83; f 1.08; t 2.16. Hind leg spine formula: 2:7:8.

Genitalia of the holotype are illustrated (Fig. 12).

intermedius, *Flatoides*, MELICHAR, 1902, p. 218; *Phalaenomorpha intermedia*, METCALF, 1957, p. 519.

Holotype, a specimen without abdomen bearing only a label "*intermedius* det MEL.". Lack of abdomen and unknown locality were both mentioned in the original description.

The holotype cannot be distinguished from *Phalaenomorpha corticina* (BURMEISTER); New synonymy.

limbellata, *Poeciloptera*, STÅL, 1854, p. 248; *Arelate limbellata*, STÅL, 1862, p. 314.

The holotype in the Stockholm Museum is a female. A male from Chile, SIGNORET Collection, det. SIGNORET, was used for study of the male genitalia. The aedeagus apically bears a pair of curved hornlike processes, which in some examples may be seen in caudal view without dissection.

Some specimens had orange yellow coloration, apparently the result of bleaching of the normal green pigmentation characteristic of this species.

melanoneura, *Adexia*, MELICHAR 1901, p. 231.

Syntypes from South America were not found in the Vienna Museum. I was informed by P. LAUTERER that a ♀ syntype from Surinam is in MELICHAR'S collection in the Brno Museum.

melichari, *Phromnia*, CHINA, 1925, p. 478; *Flatida melichari*, METCALF, 1957, p. 43.

This name was proposed by CHINA as a replacement name for *Flata inornata* sensu MELICHAR (1902, p. 213), not WALKER (1851). Specimens from Malacca, Berlin Museum, and Cochinchina, Paris Museum, cited by MELICHAR were misidentified. No specimen was found in the Paris Museum, but a specimen from Cochinchina in the Vienna Museum bears a Paris Museum label. This probably is the Paris specimen seen by MELICHAR and returned by mistake to the Vienna Museum.

minor, *Poekilloptera*, MELICHAR 1901, p. 240; *Poekilloptera phalaenoides* var. *minor* MELICHAR, 1923, p. 23.

Paralectotypes 2 ♀, Cayenne, Pillault; Here designated.

A male specimen without locality label has genital characters the same as those of the lectotype male in the Paris Museum.

I examined other specimens of *P. minor* determined by MELICHAR from Brazil, Colombia and Venezuela. They all were excluded as syntypes, because only Cayenne was cited as type locality in the original description.

nietoi, *Dascalia*, FOWLER, 1900, p. 59, pl. VII, fig. 26.

Lectotype ♀, Mexico, *nietoi* det. SIGNORET, *nietoi* type det. FOWLER, *nietoi* det. MELICHAR, here designated. Plesiotype ♂, Mexico, Vera Cruz, near Montepio, UNAM Biological Station "Los Tuxtlas", 10–16. VI. 1981, tropical rainforest at light, W. R. DOLLING, Brit. Mus. 1981–411.

Measurements from the plesiotype and lectotype. Length: overall 11.5, 12.0; v 0.33, 0.17; f 1.49, 1.49; p 0.50, 0.58; m 2.49, 2.49; t 9.13, 9.96; pcl 3.32, 3.32. Width: v 1.33, 1.20; f 1.49, 1.58; t 3.98, 4.15. Hind leg spine formula: 2:6:7; 2:6:8.

The markings of the plesiotype are indistinguishable from those of the lectotype of *nietoi* from Mexico illustrated by FOWLER (1900, fig. 26). The illustration of the plesiotype genitalia (Fig. 13, 13a) shows that the ventral process of the aedeagus is similar to the unique process found in the lectotype of *Neocerus corniculatus* (Fig. 3). Differences in the apical extensions of the median keel were used to distinguish the 2 closely related species, both of which have 2 metatibial spines.

Based on these data, *Dascalia nietoi* FOWLER is transferred to *Deocerus* METCALF, NEW COMBINATION.

The illustration of *Dascalia nietoi* by MELICHAR (1902, pl. VII, fig. 6) is not that species. It was drawn from a misidentified male in the Vienna Museum labeled Brazil, Coll. THOREY 1871, det *nietoi* MELICHAR. Data on this specimen were never published. Along with its illustration, it differs from *nietoi* in genitalia characters (Fig. 10) and presence of one metatibial spine. The spine count was a notable omission in the redescription of *Dascalia nietoi* by MELICHAR (1902, p. 145).

A new genus and new species is described to properly dispose of the misidentified species. See: *Samcerus serendipus* MEDLER.

optata, *Phyma*, MELICHAR, 1902, p. 49, pl. IV, fig. 12; *Lawana optata*, DISTANT, 1910, p. 325.

Paralectotypes ♂, ♀, Java, SIGNORET Collection, *walkeri* det. SIGNORET; here designated.

I have examined about a dozen syntypes of *optata* that were deposited in Budapest, Paris, and Vienna Museums. A syntype ♂ in the Paris Museum was designated lectotype and illustrated by MEDLER (1986a, p. 166, fig. 1).

praetextus, *Paranotus*, MELICHAR 1902, p. 25; *Phylliana praetexta*, MEDLER, 1990, p. 115.

Plesiotype ♂, Pungo [Angola, Pungo Ndongo ?], von HOMEYER, *Paranotus praetextus* MELICHAR det; here designated for purpose of measurements and illustration of the genitalia (Fig. 16). Although without status as a syntype in the original description, the plesiotype ♂ bears exactly the same labels as the syntype ♀ in the Berlin-Humboldt Museum that was designated lectotype by MEDLER (1990).

Measurements from plesiotype. Length: overall 10.5; v 0.21; f 1.37; p 0.58; m 2.32; t 8.63; pcl 2.99. Width: v 1.00; f 1.29; t 4.65. Hind leg spine formula: 2:7:9.

punctata, *Flata*, FOWLER 1900, p. 52; *Paracromna punctata*, MELICHAR, 1902, p. 57.

Holotype (♀, no abdomen), Mexico, SIGNORET Collection, *punctata* det. SIGNORET, *punctulata* (sic) det. FOWLER.

Measurements from holotype. Length: overall 13.0; v 0.66; f 2.16; p 0.58; m 2.66; t 10.13; pcl 2.66. Width: v 0.95; f 1.41; t 6.14. Hind leg spine formula: 2:6:6.

revestita, *Dascalia*, MELICHAR 1902, p. 147; *Paradascalia revestita*, METCALF, 1957, p. 449.

Holotype ♀, Brazil, Espírito Santo, FRUHSTORFER.

Measurements from holotype. Length: overall 16.0; v 0.33; f 1.91; p 0.75; m 3.74; t 12.45; pcl 3.49. Width: v 1.83; f 2.49; t 5.96. Hind leg spine formula: 2:6:9.

The posterior margin of segment VII is distinctly notched. Other females examined in *Paradascalia* had smooth margins that were slightly concave. The male genitalia is not illustrated because a specimen from the type locality with two dark diagonal bands crossing the tegmen, such as shown by the holotype, was unavailable.

rotundior, *Flata*, FOWLER 1900, p. 52, pl. VII, fig. 11; *Paracromna rotundior*, MELICHAR, 1902, p. 57.

Lectotype ♀, Mexico, Orizaba, BILIMEK; here designated.

Measurements from lectotype. Length: overall 14.0; v 1.00; f 2.32; p 0.66; m 2.16; t 11.12; pcl 3.32. Width: v 1.08; f 1.33; t 6.14. Hind leg spine formula: 2:7:8.

The syntype from Panama that was figured by FOWLER has not yet been examined.

Samcerus MEDLER, new genus

This monotypic genus is established for *serendipus* MEDLER, a new species that replaces *Dascalia nietoi* sensu MELICHAR, 1902, not FOWLER 1900. Easily distinguished from *Deocerus* METCALF by presence of one metatibial lateral spine. Known only from Brazil.

Vertex wider than long (1:3), anterior margin convex, distinctly delimiting dorsal margin of frons, median longitudinal suture present; frons longer than wide, short remnant of U-shaped carina forming median portion of dorsal margin, median carina short; pronotum slightly depressed anteriorly, sloping posteriorly; mesonotum elevated anteriorly, plane of disc noticeably above level of vertex, with pair of shallow bulges anteriorly, median carina evanescent; scutellum elevated above dorsal plane of mesonotum. In lateral view, pronotum with elevated ridge extending about half-way from below eye to antero-ventral margin of lateral lobe.

Tegmen costal margin undulate, longer than sutural margin, costal angle convex, apical margin oblique, postclaval sutural margin straight, sharply angled at apex of clavus, meeting apical margin at nearly a right angle; veins R, S + M apparently arising from basal stem, but actually veins R, S, M arising, with vein S displaced closely against M by strongly elevated bulla; M and Cu forking at same plane, R + C continuing apically as submarginal line that terminates at apex of clavus; inner line of crossveins across disc, basad of this line a dense network of crossveins, apicad of this line a regular array of longitudinal veins extending to submarginal line, then continuing to apical margin, without cross veins in areas between submarginals, and no forking of terminals in apical area; clavus basally

with strongly raised pustulate bulla that is crossed by sharp median ridge carrying vein Cl 2.

The species was illustrated by MELICHAR (1902, pl. VII, fig 6). See *serendipus* MEDLER, for description of the new species.

scabrida, *Dascalia*, MELICHAR 1902, p. 148, pl. VII, fig. 1.

Holotype ♀, Brazil, Espírito Santo, FRUHSTORFER.

Measurements from holotype. Length: overall 12.0; v 0.33; f 1.33; p 0.58; m 2.66; t 8.96; pcl 3.32. Width: v 0.95; f 1.16; t 4.65. Hind leg spine formula: 1:7:7.

The illustration given by MELICHAR appears to be much the same as similarly marked specimens of *Dascalia sinuatipennis* STÅL. However, the holotype of *scabrida* has a darker and better defined color pattern, the body size is more robust and the hind leg spine formula is different. Confirmation of status as a valid species requires knowledge of the male genitalia.

scabrosus, *Flatoides*, MELICHAR 1902, p. 220, pl. VI, fig. 4; *Flatoidinus scabrosus*, MELICHAR, 1923, p. 117; METCALF, 1923, p. 535.

Lectotype ♂ – Brasilien, *dorsisignatus*/det MELICHAR. Paralectotype ♀ [headless] – Brasil, *scabrosus* det MEL. The lectotype undoubtedly was the model for MELICHAR's illustration (1902, pl. VI, fig. 4).

Measurements from lectotype. Length: overall 13.0; v 0.58; f 1.58; p 0.66; m 2.16; t 9.46; pcl 2.16. Width: v 1.00; f 1.41; t 4.32. Hind leg spine formula: 2:7:7.

The lectotype genitalia are illustrated (Fig. 14).

The name *dorsisignatus* carried by the lectotype may represent MELICHAR's provisional use of *Flatoides dorsisigna* WALKER. The subsequent change to *scabrosus* is postulated because no record of WALKER's species was given by MELICHAR.

The ♀ and 2 ♂ syntypes in the Berlin-Humboldt Museum were also examined. Each was labeled (1) Cat. No./5057 (2) Georgia/Esch (3) *Phalaenomorpha sordida*/GERM i l (4) *Flat. scabro-/sus*/MELICHAR det. The specimens could not be differentiated from the Brazil syntypes, and the male genitalia were the same as that shown for the lectotype.

The specimen that served as the model for METCALF's colored illustration of *Flatoides scabrosus* (METCALF 1923, pl. 39, fig. 15) was not found in the NCSU collection. However, a female specimen, Mobile Co., Ala., 1914, 2668, det. *Flatoidinus scabrosus* by Z.P.M. closely resembles METCALF's illustration. This specimen, and the model for METCALF's figure, are misidentifications.

I examined 8 NCSU specimens collected in North Carolina that were typical *scabrosus*. My identification was confirmed by examination of the genitalia of two males, one dark grey and the other light brown in color.

This species is assigned to the genus *Flataloides* METCALF, which can be separated from *Flatoidinus* Auctorum by the following key:

Vertex acute, flattened, postocular eminence of pronotum a carinate ridge extending from near eye to antero-ventral margin; tegmen with vein R merging evenly with C, C + R continuing apically as submarginal line of crossveins

..... *Flatoidinus* Auctorum

Vertex bluntly convex, with deep median sulcus, postocular eminence a shallow cone; tegmen with veins R and C parallel, R abruptly curved to join C, giving rise to apical submarginal vein and discal cross vein extending to apex of clavus

..... *Flataloides* METCALF

separata, *Ormenis*, MELICHAR 1902, p. 79; *Neoflata separata*, MELICHAR, 1923, p. 77.

Holotype ♀, Brazil, NATTERER, det MELICHAR.

This species has not been recorded since its original description. I have not recognized a male in the limited material examined.

serendipus, *Samcerus* MEDLER, sp. nov.

Holotype ♂, Brazil: THOREY 1871, Belmonte, *nietoi* det MELICHAR. Allotype ♀, same labels as holotype. Paratype ♂, Sao Paulo, Alto da Serra [Parana Piacaba], 29–30. X. 1927, ZERNY.

The markings of the allotype were illustrated accurately by MELICHAR, 1902, p. 145, pl. VII, fig. 6. The markings of the males are similar, but slightly darker.

Overall color from above yellow green, markings brown or brown-black; 2 small dots on dorsal margin of frons, 1 median spot on posterior margin of vertex, triangular spot on postero-lateral margins of mesonotum, pair of small round spots posteriorly spaced apart as wide as scutellum; pronotum paranotal lobes entirely black, tegulae brown, brown bar on mesonotum above each tegula. Tegmen markings as illustrated, 6 evenly spaced dark patches in precostal margin variable slightly in extent, dark brown patch basally between vein C and R extending apicad to middle of bulla.

Measurements from holotype and allotype. Length: overall 11.0, 12.0; v 0.46, 0.50; f 1.49, 1.66; p 0.66, 0.66; m 2.32, 2.32; t 8.63, 9.63; pcl 2.66, 2.49. Width: v 1.00, 1.00; f 1.41, 1.45; t 3.98, 4.15. Hind leg spine formula: 1:7:9, 1:6:9.

The holotype genitalia are illustrated (Fig. 10). Valvulae III with double row of moderately heavy teeth, seven outer, 5 inner.

similis, *Ormenis*, MELICHAR 1902, p. 85; *Melormenis similis*, METCALF, 1957, p. 334.

Lectotype ♂, paralectotypes 3 ♀, Brazil, Rio Grande do Sul, STIEGLMAYR; here designated.

Measurements from lectotype and paralectotype. Length: overall 7.0, 8.0; v 0.17, 0.25; f 0.91, 0.91; p 0.33, 0.33; m 1.49, 1.66; t 6.14, 6.81; pcl 1.83, 1.66. Width: v 0.75, 0.71; f 0.91, 1.00; t 2.99, 3.15. Hind leg spine formula: 2:8:9, 2:8:9.

The lectotype genitalia are illustrated (Fig. 11).

sordida, *Phalaenomorpha*, STÅL 1864, p. 54; *Atracis sordida*, METCALF, 1957, p. 495.

Holotype ♀ – (1) Mexico/coll. SIGN. (2) *humeralis* det SIGN. (3) *Syn Elidiptera/humeralis/WALK/ = El. basistigma* WALK. var./*Phalolonon/sordida* STÅL (4) *humeralis* det MEL.

There is a close relationship between *sordida* (STÅL), *humeralis* (WALKER), and about a dozen species that belong to the genus *Atracis* Auctorum in the New World. The genital characters of *humeralis* were illustrated by O'BRIEN (1987, p. 387), but those of *sordida* and most other species are unpublished.

The holotype of *Phalaenomorpha sordida* STÅL has one metatibial lateral spine. It is here transferred to *Metcracis* MEDLER, New combination.

spilota, *Dascalia*, MELICHAR 1902, p. 150; *Leptodascalia spilota*, MELICHAR, 1923, p. 102.

Holotype ♀, Brazil, Bahia, FRUHSTORFER.

Measurements from holotype. Length: overall 12.5; v 0.25; f 1.33; p 0.50; m 2.66; t 9.96; pcl 3.98. Width: v 1.33; f 1.66; t 4.81. Hind leg spine formula: 2:7:8.

There is need to study genitalia characters of a male that has been matched with the holotype.

subtilis, *Atracis*, MELICHAR 1902, p. 195; MEDLER, 1986b, p. 52, fig. 15; MEDLER, 1987, p. 538, fig. 4; *Gaja subtilis*, DISTANT, 1906, p. 462.

Paralectotype ♂, Ceylon, FELDER; here designated. The left tegmen is lost. The right tegmen has a section missing from the costal margin about halfway between base and apex. This specimen was part of the syntype series in the Vienna Museum from which the lectotype ♂ was designated and genitalia illustrated by MEDLER (1987). The syntypes in the Humboldt-Berlin Museum also were designated paralectotypes and the male genitalia illustrated by MEDLER (1986b).

Measurements from paralectotype ♂. Length: overall 10.5; v 0.66; f 1.41; p 0.54; m 1.49; t 8.13; pcl 3.15. Width: v 0.58; f 0.66; t 2.82. Hind leg spine formula: 1:7:7.

venusta, *Ormenis*, MELICHAR 1902, p. 84; *Ormenoides venusta*, MELICHAR, 1923, p. 73.

Holotype ♀, (1) Tenesse./coll. SIGN. (2) *venusta* det MEL.

Plesiotype ♂, (1) Ohio/Terrace Park/8.14.03, Bishop Museum.

Measurements from plesiotype ♂. Length: overall 7.0; v 0.17; f 0.83; p 0.29; m 1.33; t 5.31; pcl 1.49. Width: v 0.66; f 0.75; t 2.99. Hind leg spine formula: 2:6:6.

The plesiotype genitalia are illustrated (Fig. 15).

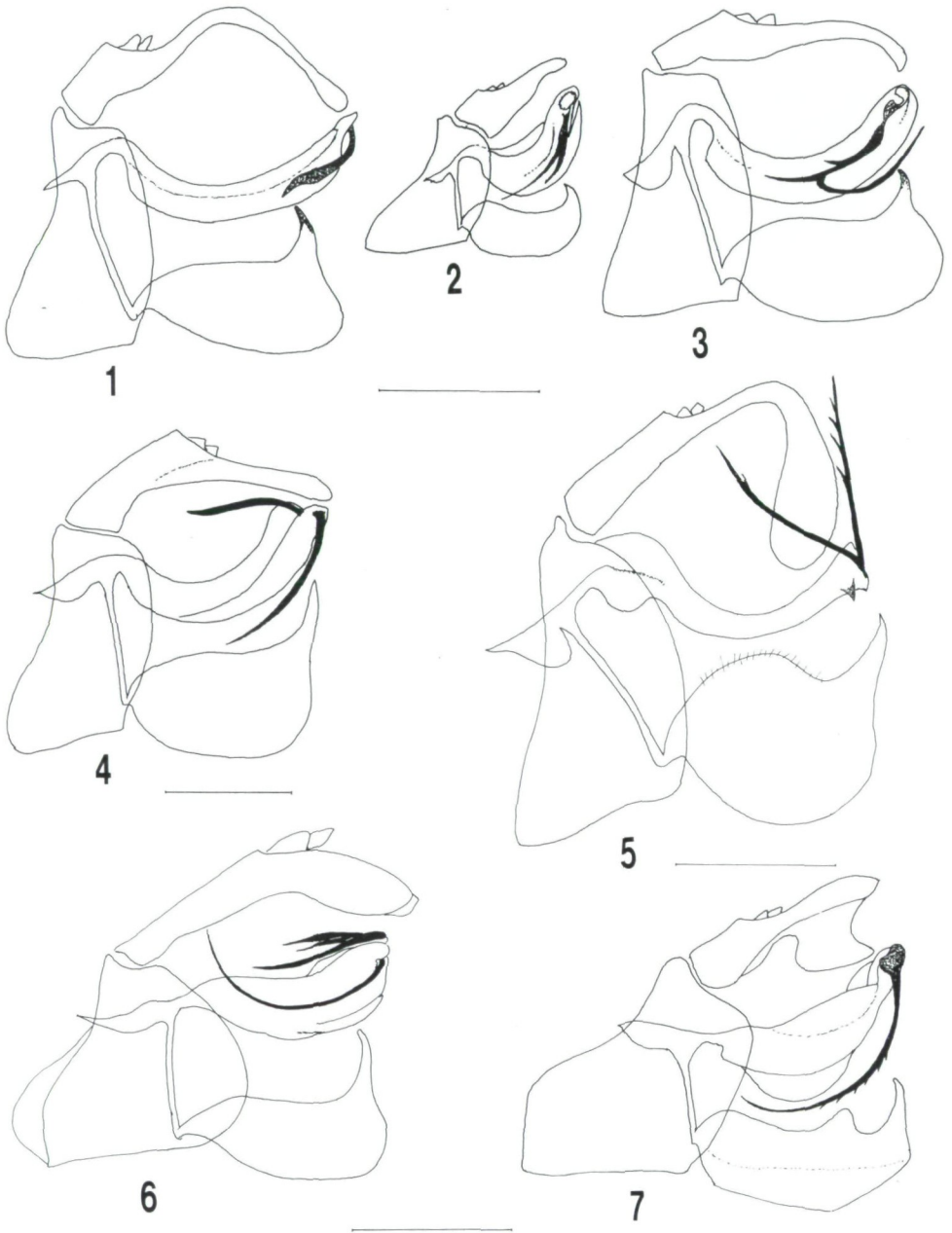
A c k n o w l e d g m e n t

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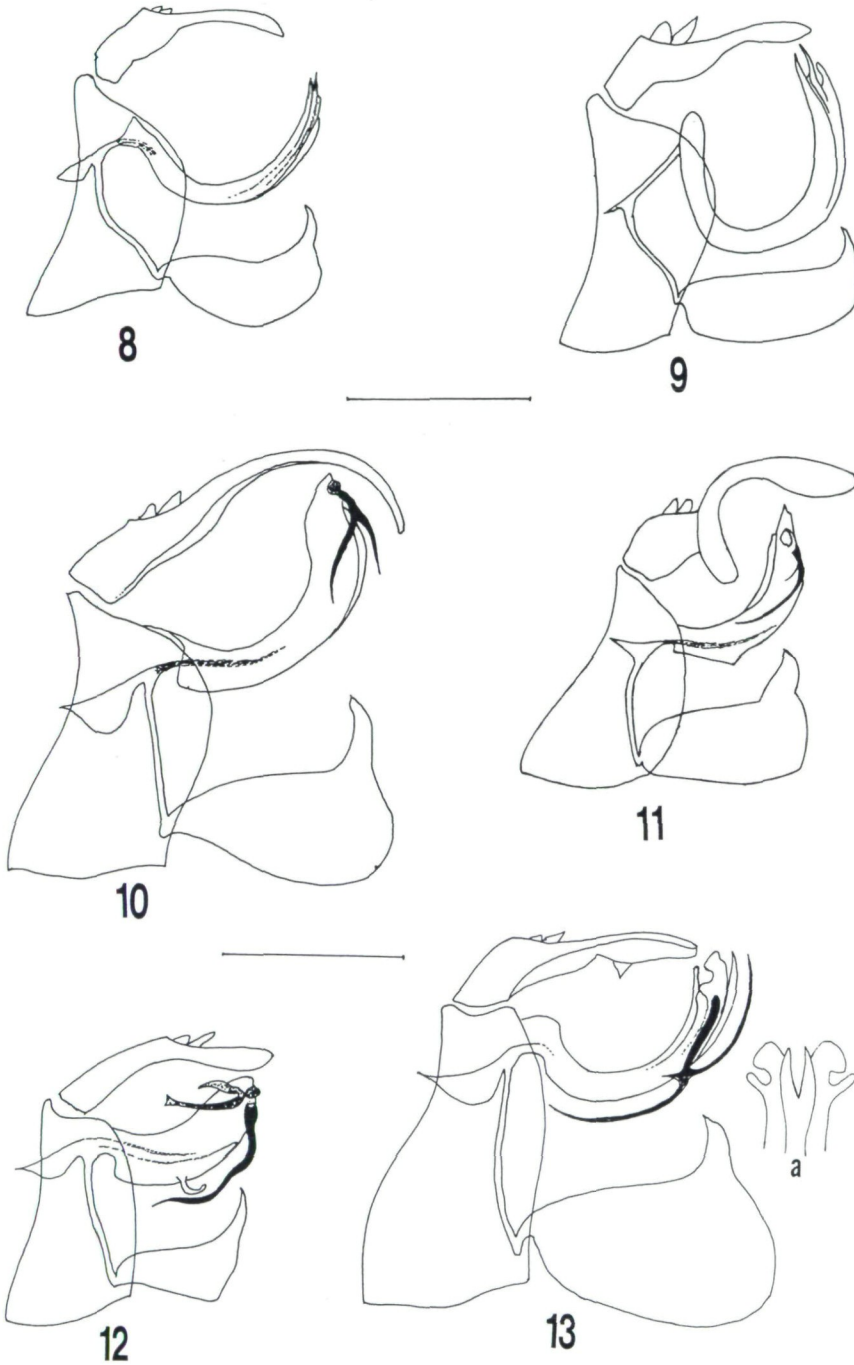
References

- CALDWELL, J. S. (1951): Family Flatidae. In Review of the Auchenorrhynchous Homoptera of Puerto Rico. Part II. – J. Agric. Univ. P. Rico, **34**: 225–247.
- CHINA, W. E. (1925): The Hemiptera collected by Prof. J. W. GREGORY's expedition to Yunnan, with synonymic notes on allied species. – Ann. Mag. Nat. Hist., (9) **16**: 449–485.
- DISTANT, W. L. (1906): The Fauna of British India, including Ceylon and Burma. Rhynchota. Heteroptera-Homoptera. Vol 3: 397–464, Figs. 205–252.
- (1910): Rhynchota Malaysiana. Part III. – Rec. Ind. Mus. (Calcuta) **5**: 313–338.
- FENNAH, R. G. (1960): Fulgoroidea (Homoptera) from New Caledonia and the Loyalty Islands. Flatidae. – Pacific Ins. Monogr., **21**: 102–108.
- FOWLER, W. W. (1900): Order Rhynchota. Suborder Hemiptera-Homoptera (Continued). – Biologia Centrali-Americana, **1**: 49–56, pl. 7.
- JACOBI, A. (1915): Kritische Bemerkungen über die Flatinae (Rhynchota Homoptera). – Deutsche Ent. Zeit., **1915**: 157–178.
- MEDLER, J. T. (1986a): Types of Flatidae (Homoptera) VI. Lectotype designations and taxonomic notes on species in the M.N.H.N., Paris. – Rev. fr. Ent., (N.S.), **7**: 163–168.
- (1986b): Types of Flatidae VII, lectotype designations and taxonomic notes on species in the Zoological Museum of the Humboldt-University Berlin (Homoptera). – Dtsch. ent. Z., N.F., **33**: 45–53.
- (1987): Types of Flatidae (Homoptera) IV. Lectotype designations and taxonomic notes on species in the Vienna Museum. – Ann. Naturhist. Mus. Wien, **88/89 B**: 535–539.
- (1988a): Types of Flatidae (Homoptera) XII. Taxonomic notes on GUÉRIN-MENÉVILLE types in the Naples Museum, with illustrations of male genitalia of plesiotypes for the respective species. – Boll. Lab. Ent. agr. Filippo Silvestri, **43**: 11–20.
- (1988b): Flatidae from the Tai Forest, Côte d'Ivoire, and taxonomic notes on the family in West Africa [Homoptera, Auchenorrhyncha, Fulgoroidea]. – Revue fr. Ent. (N.S.), **10**: 117–148.
- (1990): Types of Flatidae XIII, Lectotype designations and taxonomic notes on African species in the Zoological Museum of the Humboldt-University Berlin. – Dtsch. entomol. Z., N. F., **37**: 105–118.
- (1991a): Flatidae of Sulawesi, with notes on some related Philippine and Indomalayan species (Homoptera: Fulgoroidea). – Oriental Ins., **25**: 1–43.
- (1991b): Review of *Paratella* MELICHAR and *Taparella* MEDLER in New Guinea, with descriptions of new species (Homoptera: Flatidae). – Bishop Mus. Occ. Pap., **31**: 106–121.
- MELICHAR, L. (1901): Monographie der Acanaloniiden und Flatiden (Homoptera). – Ann. Naturhist. Hofmus. Wien, **16**: 178–258.
- (1902): Monographie der Acanaloniiden und Flatiden (Homoptera) (Fortsetzung). – Ann. Naturhist. Hofmus. Wien, **17**: 1–123, Pl. I–IX.
- (1923): Homoptera, fam. Acanaloniidae, Flatidae et Ricaniidae. – Genera Insectorum., **182**: 1–185, 2 pl.
- METCALF, Z.P. (1923): A key to the Fulgoridae of eastern North America with descriptions of new species. – J. Elisha Mitchell Sci. Soc., **38**: 139–230.
- (1938): The Fulgorina of Barro Colorado and other parts of Panama. – Bull. Mus. Comp. Zool., **82**: 277–423, pls. 1–23.
- (1957): General Catalogue of the Homoptera, Fasc. IV, Part 13, Flatidae. North Carolina State College, Raleigh, N. C. 565 pp.
- METCALF, Z.P. & BRUNER, S.C. (1948): Cuban Flatidae with new species from adjacent Regions. – Ann. Ent. Soc. Amer., **41**: 63–118.
- MONTROUZIER (1861): Essai sur la faune entomologique de la Nouvelle-Calédonie (Balade) et des îles des Pins, Art, Lifu, etc. Hemipteres. – Anns Soc. Ent. Fr., **1**: 59–74.
- O'BRIEN, L. (1987): Corrections and additions to METCALF's "The Fulgorina of Barro Colorado and other parts of Panama" (Homoptera: Fulgoroidea). – Ann. Entomol. Soc. Amer., **80**: 379–390.

- SIGNORET, V. (1860): Faune des Hemipteres de Madagascar. 1re partie. Homopteres. – Ann Soc Ent Fr, **8**: 177–206, pl 4–5.
- SPINOLA, M. (1839): Essai sur les Fulgorelles, sous-tribu de la tribu des Cicadaïres, ordre des Rhyngotes (Suite). – Ann. Soc. Ent. France, **8**: 339–454, pl 8.
- STAL, C. (1854): Nya Hemiptera. – Ofvers. K. Vetensk. Akad. Forh. Stockh., **11**: 231–255.
- (1862): Nova vel minus cognitae Homopterorum formae et species. – Berliner Ent. Z., **6**: 303–315.
- (1864): Hemiptera mexicana enumeravit speciesque nova descripsit (continuatio). – Stett. Ent. Zeit., **25**: 49–86.
- (1866): Hemiptera Africana **4**: 1–276.
- SYNAVE, H. (1980): List du Materiel Typique Conserve dans les Collections Entomologiques de l'Institut Royal des Sciences Naturelles de Belgique. Homoptera 11–16 Flatidae. – Bull.Inst. r. Sci. nat. Belg. (Ent.), (6)**52**: 1–32.
- WALKER, F. (1851): List of the specimens of Homopterous insects in the collection of the British Museum **2**: 261–636, pls. 3–4.
- (1858): List of the specimens of Homopterous insects in the collection of the British Museum, Supplement, p. 1–307.

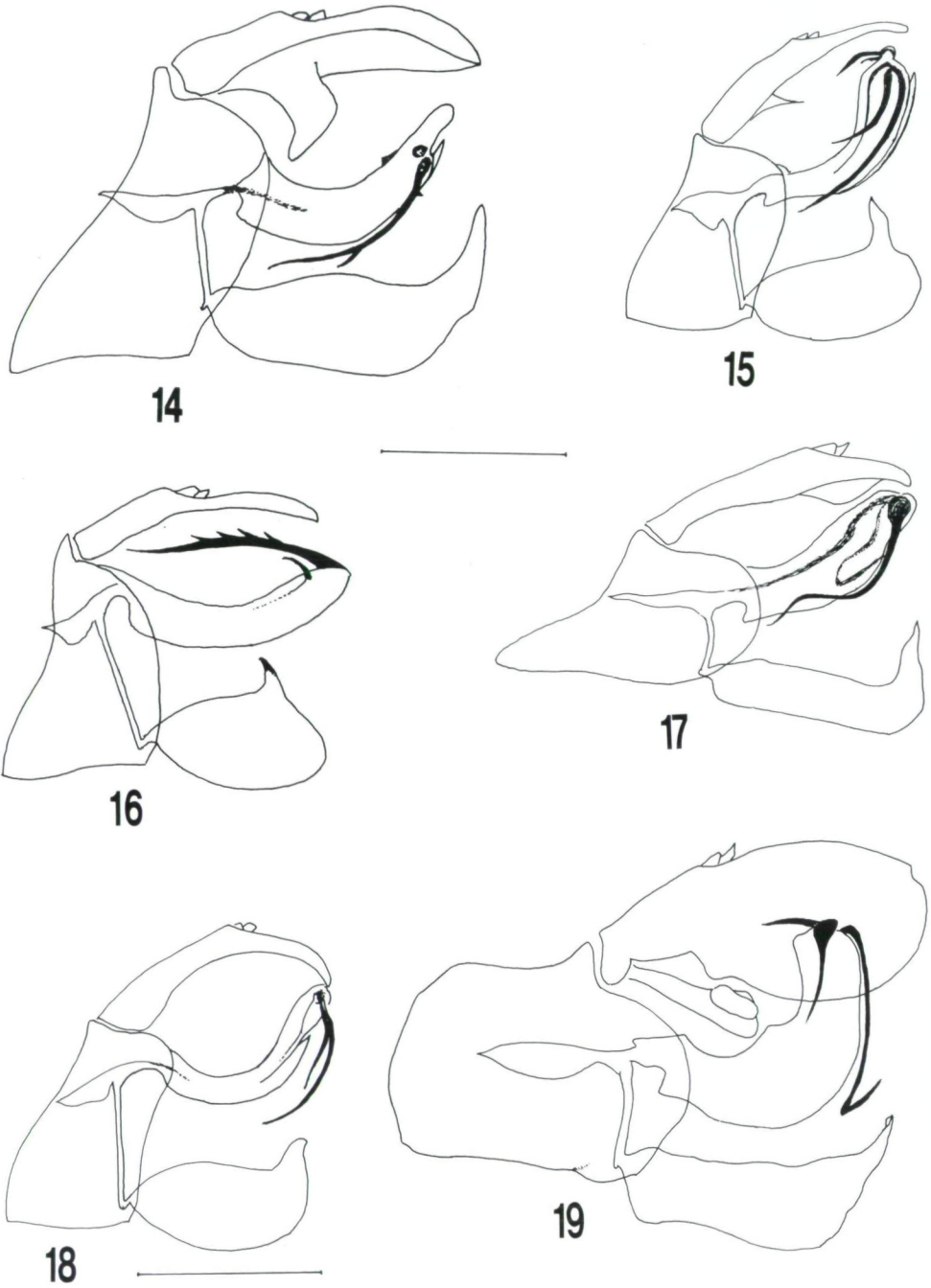


Figs. 1–7: Left lateral view of male genitalia of:
1, *Dascalia contorta* MELICHAR; 2, *Dascalia fumata* MELICHAR; 3, *Neocerus corniculatus* MELICHAR;
4, *Flata championi* FOWLER; 5, *Poeciloptera dominicensis* SPINOLA; 6, *Atracodes indutus* MELICHAR;
7, *Atracis collecta* MELICHAR. Scale bar = 1 mm.



Figs. 8–13: Left lateral view of male genitalia of:

8, *Ormenis inferior* FOWLER; 9, *Ormenis dolobrata* FOWLER; 10, *Samcerus serendipus* MEDLER; 11, *Ormenis similis* Melichar; 12, *Ormenis infuscata* STÅL; 13, *Dascalia nietoi* FOWLER; 13a, apical view of aedeagus. Scale bar = 1 mm.



Figs. 14–19: Left lateral view of male genitalia of:
14, *Flatoides scabrosus* MELICHAR; 15, *Ormenis venusta* MELICHAR; 16, *Paranotus praetextus* MELICHAR; 17, *Flatoides demissus* Melichar; 18, *Nephesa antica* SIGNORET; 19, *Flatoides distant* MELICHAR. Scale bar = 1 mm.