

## ANALECTA MIRIDOLOGICA, V: OBSERVATIONS ON TYPE SPECIMENS IN THE COLLECTION OF THE BRITISH MUSEUM OF NATURAL HISTORY (HEMIPTERA, MIRIDAE)<sup>1</sup>

JOSÉ C.M. CARVALHO\*

Museu Nacional, Rio de Janeiro

During a visit to the British Museum of Natural History, London (October 16-18, 1978), the author had the opportunity to study several specimens of species described by different authors, especially William Lucas Distant. Observations made are summarized in the present paper in the hope that they might be useful to colleagues working on the family in the future.

A total of 99 species were checked and notes expressed as follows:

### **Admetus fimbriatus** Distant, 1883

Black, pronotum reddish on both sides.

### **Ambracius dufouri** Stål, 1860

The species described by Distant as *maculatus* (1884), *marginatus* (1884), *bicolor* (1888), *rubricosus* (1884) and Walker's *alternus* (1873) are synonyms of *dufourii*. All have black second antennal segment, hood cystiform, tumid, cuneus shorter than in *Ambracius pallescens* (Distant), legs black.

### **Ambracius pallescens** (Distant, 1884)

The two females types of this species are very similar to the male of *Ambracius albomaculatus*

(Distant, 1884). Both species have the hood strongly raised and depressed or laminate, scutellum strongly tumid, color variable (as most species in the group), second antennal segment lutescent to pale at middle, legs pale. I am considering *albomaculatus* a synonym (male specimen) of *pallescens* Distant which has priority (*new synonymy*). The species is described from Guatemala.

### **Amulacoris dissimulans** (Distant, 1893) *new combination*

Black, shining, segments I and II of antenna (except apex of II which is black) pale, apices of femora and tibiae (totally) pale. This species is not a synonym of *subalbicans* (Distant) as mentioned by myself (Bol. Mus. Nac. R. Jan. Zool. 118:5, 1952).

### **Araspus partilus** (Walker, 1873)

Black with pubescence dense, woolly and silvery on incident light, antenna black.

### **Araspus partilus** (Walker, 1873)

Black metallic, pronotum (except calli and collar), scutellum, base of hemelytra, legs, first antennal segment, base of second segment lutescent; the latter strongly incrassate and pilose apically.

### **Argenis alboviridescens** Distant, 1904

The type is a female from Ceylon, Green

<sup>1</sup> Received July 3, 1979.

\* Research Fellow of the National Research Council (CNPq).

col., 90-115. The species do not pertain to genus *Argenis* Distant and may constitute a new genus.

***Argenis incisuratus* (Walker, 1873)**

The type is a female from Thwaites, Ceylon.

***Bothriomiris dissimulans* (Walker, 1873)**

The scutellum is reddish with a pale longitudinal fascia.

***Bothriomiris testaceus* Distant, 1904**

Color yellowish testaceous, membrane fuscous.

***Carmelus fasciatus* Distant, 1893**

This species shows a dark transversal fascia on corium level with apex of scutellum.

***Carmelus formosus* (Distant, 1884)**

With a dark spot in the middle of clavus, embolium, apex of exocorium and margins of cuneus reddish.

***Carmelus lunatus* (Distant, 1884)**

A spot on disc posteriorly, base of scutellum and a spot at middle of clavus, apex of corial commissure and membrane black, hind margin of pronotum, clavus, transversal fascia on corium and embolium level with apex of clavus reddish.

***Carmelus parvus* Distant, 1884**

Reddish ochraceous, spots behind calli, humeral angles, scutellum and embolium at base white.

***Clapmarius turgidus* Distant, 1904**

The first antennal segment as in *Lampethusa* Distant.

***Cylapofulvius listeri* Izzard, 1936**

This species from Christmas Islands has the pronotum and scutellum punctate, hemelytra

shagreen, smooth, cuneal suture small, oblique, embolium widening to base, color brown mottled with pale. Its position in the genus is questioned.

***Cyrtocapsus marginatus* (Distant, 1893)**

Black with pale embolium, legs black with base of femora and apical 3/4 of tibiae pale, antenna ochraceous.

***Derophthalma emissitia* (Distant, 1893)**

Lectotype female, Orizaba, with segment I of antenna black only at base. Paralectotype female, from Rio Honda, Honduras, with segment I of antenna black, pale apically.

***Derophthalma laterata* (Distant, 1883)**

Lectotype female and two paralectotypes from Chiriqui, Panama. Segment I of antenna black.

***Dichroocoris nigripes* (Distant, 1884)**

Black, head, pronotum, mesoscutum and first rostral segment red; size small.

***Eccritotarsus argentatus* (Distant, 1884)**

Ochraceous with four rounded black spots (two at base of clavus and two at middle of corium), tibiae and apex of cuneus black.

***Eccritotarsus linearis* (Distant, 1884)**

Ochraceous with longitudinal black fasciae on body (two at middle of corium and two covering embolium), margins of cuneus and nervures of membrane black.

***Eccritotarsus pictus* (Distant, 1884)**

Ochraceous, scutellum, base and apex of clavus, a transversal fascia on corium level with apex of clavus black (these fasciae widen inwards), apex of second antennal segment and third tarsi black.

**Elthemus Distant, 1909**

Genus very near *Stenotus* Jakovlev, 1877.

**Ernestinus mimicus Distant, 1911**

Black, corium, embolium and cuneus ochraceous, a transverse fascia at middle of corium, middle portion of membrane (apex pale) fuscous, antenna black, legs white; small size, rostrum reaches hind coxae and pronotum is somewhat hooded over head.

**Eurystylus sericeus (Walker, 1873)**

With a facies of *Polymerus* Hahn or *Probosciodocoris* Reuter but not in the present taxon as transferred by Poppius (1911).

**Eurystylus sobrius (Walker, 1873)**

The species does not belong to this taxon and might constitute a new genus.

**Eurystylus stoliczkanus Stål, 1870**

The species under this name in the BMNH seems to be a *Calocoris* Fieber. It is straw colored, with segment I of antenna thickened, the segment II clavate.

**Felisacus auritululus Distant, 1913**

This species described from Seychelles Islands is ochraceous with only antenna and eyes black. The type is mutilated (hemelytra has only 1/2 of clavus).

**Felisacus magnificus Distant, 1904**

This well marked species shows two reddish fasciae on neck which unite at frons and clypeus (in the latter with the upper fascia), first antennal segment red, hind with reddish upper margin.

**Fulvius dolobratulus Distant, 1913**

Described from Seychelles Islands this species is a synonym of *Fulvius pallidus* Poppius, 1909 (*new synonymy*).

**Guerreroecoris punctatus (Distant, 1893)**

Black, shining, glabrous, pronotum and hemelytra punctate, first and second segments of tarsi pale, vertex carinate.

**Gunhadya rubrofasciata Distant, 1920**

The hemelytra is semispherical and shows a hemispherical red spot on embolium and corium, size very small with long, fine, erect hairs.

**Halodapoides guaraniensis Carvalho, 1951**

With facies of *Halodapus* Fieber, 1858 but glabrous, cuneus reddish.

**Harpedona marginata Distant, 1904**

Black, embolium (except outer margin) and legs pale, hind tibiae with a black longitudinal line, antenna black (except extreme base of segment I); vertex prominent with a somewhat lobate shining area at middle.

**Harpedona sanguinipes Distant, 1909**

This small species from Darjiling (India) has head, pronotum and scutellum black, hemelytra dark brown, legs and first antennal segment pale with a reddish or castaneous tinge. The type is a male specimen with an extremely complex genitalia.

**Hekista novitius (Distant, 1904)**

Black, head and embolium pale, antenna and legs also pale; membrane very long, body elongate with lateral margins of hemelytra parallel.

**Hemiophthalmocoris lugubris Poppius, 1912**

It has the general facies of *Fulvius* Stål, 1862 but rostrum reaches apex of abdomen, color uniformly brown.

**Hyaliodes vittaticornis Bruner, 1934**

The specimen in the BMNH mentioned as

paratype is a specimen of a *Paraproba* species with first antennal segment reddish, sides of pronotum also reddish, collar wide, abdomen and legs mutilated. Since there are not vittae on the first antennal segment I doubt if this specimen is really a paratype of *vittaticornis* Bruner.

***Hyalopeplus longirostris* Odhiambo, 1962**

This species described from Uganda, seems to be identical with *Hyalopeplus similis* Poppius, 1912. Unfortunately I missed it when revising the tribe Hyalopeplini (Rec. South Austr. Mus. 1979). There are also specimens from Nyassaland. A critical study for comparison of these two species is desirable. Color variation on this species is widespread. Structure of genitalia seems to be constant.

***Jacchinus* Distant, 1893**

With the facies of *Creontiades* Distant, 1883.

***Jobertus trimaculatus* Capriles,**

Greenish with sclerotized areola of membrane concolor with hemelytra, hairs long and erect.

***Jornandes championi* Distant, 1884**

Glabrous, shining, hemelytra shagrine, color black, head (except a spot on vertex), area of calli and sides of pronotum, a longitudinal fascia on exocorium, apex of hemelytra and base of cuneus externally pale to lutescent or citrine.

***Jornandes cruralis* Distant, 1893**

Black, head, antenna and legs pale.

***Knightocoris villosus* (Distant, 1884)**

The species is somewhat lutescent with a longitudinal spot on scutellum and areolar portion of membrane, apices of first and second antennal segments black; pubescence of body semiadpressed, dense and short.

***Lundiella minuens* (Distant, 1893)**

Brownish to pale, head paler with a brown

spot on vertex, antenna pale, apex of second segment black.

***Lundiella pertingens* (Distant, 1893)**

Brown with embolium and cuneus reddish.

***Megacoelum biseratense* (Distant, 1903)**

The species belongs to genus *Creontiades* Distant, 1883. General coloration brown, pronotum lutescent with a longitudinal brown fascia at middle following anteriorly between calli in a T-like stripe.

***Megacoelum brunnetii* Distant, 1909**

Reddish brown collar and hind margin of disc pale.

***Megacoelum esmedorae* Ballard, 1927**

Species very near *brunnetii* Distant, 1909.

***Megacoelum marginandum* Distant, 1909**

Pale brown with collar and posterior margin of disc pale, cuneus reddish, Ceylon.

***Megacoelum nigroscutellatum* Distant, 1920**

This species from New Caledonia belong to genus *Faliscus* Distant, 1920 (*new combination*). The species is pale to ochraceous spotted with red, calli with raised lobes, scutellum strongly raised, pronotum strongly constricted, disc punctate, rows of longitudinal punctures along claval nervure and following embolium on corium. There are three specimens.

***Megacoelum patrum* Distant, 1909**

This species described from Ceylon is brown, pronotum paler, apex of embolium and apex of cuneus reddish, collar and hind margin of disc pale.

***Mertila ternatensis* Distant, 1904**

The type is a male from Ternate Island. The species belongs to genus *Imogen* Kirkaldy, 1905 (*new combination*). Second antennal segment moderately incrassate to apex. Body lutescent

(except eyes, antenna, clypeus, first rostral segment and hemelytra beyond level to apex of scutellum which are black and shining).

**Monalocoris eminulus** (Distant, 1893)

Size very small, black with head, basal half of second antennal segment and legs pale. The paralectotype specimen is castaneous.

**Monalocorisca lineata** Distant, 1893

The species belongs to genus *Agnocoris* Reuter, 1875 (*new combination*) and is probably a synonym of *Agnocoris pulvulentus* (Uhler, 1892), brown with pronotum rugose punctate, hemelytra densely adpressed pubescent, a pale longitudinal line on scutellum apex and outer portion of cuneus pale. There is also a pale line on posterior margin of pronotum, margins and middle of propleura anteriorly.

**Neocapsus cuneatus** Distant, 1893

Shining black, metallic, rugose punctate, hairs long and erect (on disc) and semierect (on corium), pronotum reddish lutescent to lutescent (except posterior portion of disc not reaching humeral angles), area of calli brown, exocorium and cuneus tending to lutescent (less apparent on corium), propleura lutescent.

**Nymannus typicus** Distant, 1904

This species probably was placed in the *Stenodemini* China due to the length of the first segment of hind tarsus but it really belongs to the *Mirini* Hahn. In my view it is also a synonym of *Stenotus* Jakovlev, 1877 (*new combination*). It is dark brown with a reddish tinge on cuneus and costal nervure, first antennal segment thick, head and calli dark. Some specimens are reddish with first antenna and also femora tending to red.

**Pachypeltis anadyomene** (Kirkaldy, 1902)

The holotype from Singapore is of medium size, lutescent, with hemelytra castaneous (embolium lutescent), hind femur reddish apically with a pale ring on red portion, hind tibia red on basal half, abdomen and lower side also reddish.

**Pachypeltis elegans** (Distant, 1904)

The holotype is also of medium size, lutescent, hemelytra castaneous, cuneus red, eyes and antenna black, segments III-V of abdomen white.

**Pachypeltis humerale** (Walker, 1873)

The holotype is of medium size, lutescent, eyes, antenna and two typical spots laterally on disc black, segments II-IV of abdomen white:

**Pachypeltis maesarum** (Kirkaldy, 1902)

Head, pronotum (except humeral angles and a small spot before scutellum, the latter (except longitudinal median fascia) black, hemelytra darker at base and apex, cuneus pale, dark apically, hind femur black with a pale ring.

**Pachypeltis philippinensis** (Distant, 1910)

The type is of medium size, color cinnamon, humeral angles and a spot before scutellum pale, abdomen with white spots laterally on VIII and IX segments.

**Pachypeltis politum** (Walker, 1873)

Species of large size, the type is testaceous, first antenna reddish to lutescent, two spots on apex of corium and membrane black, apex of hind femur and two basal thirds of hind tibia black.

**Pachypeltis stali** (Distant, 1910)

The type is of medium size, black with a median longitudinal fascia on disc of pronotum, neck and longitudinal fascia on scutellum pale, hind femur black with a pale ring, hind tibia with basal half black, segments II-V of abdomen white.

**Phytocoris elegans** (Distant, 1883)

Ochraceous, hind portion of disc greenish, middle of clavus reddish longitudinally, paracuneus and apex of cuneus reddish; first antenna and third femur marmorate with reddish brown.

**Phytocoris exustus** (Distant, 1883)

With two black ocellate spots on apex of scutellum and four tufts of black hairs on hind margin of disc, first antenna with long and fine hairs.

**Phytocoris mistus** (Distant, 1883)

With two large pale greenish spots at apex of corium.

**Phytocoris praesignis** (Distant, 1893)

This species shows an embolium with facies of *Tingitotum* Kirkaldy, 1902, humeral angles, mesoscutum and preapical spots on scutellum black, antennae pale, size medium, elongate.

**Phytocoris sanguinolentum** (Distant, 1893)

Ochraceous, aspersed with red (pumpkin on head and pronotum), four spots on posterior margin of disc and two subapical spots on scutellum black, antenna pale. Large and elongate.

**Poecilocapsus agrarius** Distant, 1884

This species was placed in the genus *Proba* Distant, 1884 by Carvalho (Bol. Mus. Nac. R. Jan. Zool. 118: 2, 1952). A more careful study of type has revealed that in spite of being glabrous, only pronotum and scutellum are rugose punctate, the hairs probably being rubbed off. The lateral margins of pronotum, posterior margin of disc narrowly and median longitudinal fascia on discal surface area reddish lutescent to lutescent. Its correct position seems to be in the genus *Neocapsus* Distant, 1884 but only after examination of structure of genitalia this can be correctly ascertained.

**Poecilocapsus mollis** Distant, 1893

Large, two longitudinal fasciae on pronotum, humeral angles and lateral margins of disc black, a longitudinal wide fascia along middle of scutellum also black or dark brown.

**Proba gracilis** Distant, 1884

This species is the type of the genus *Proba*

Distant, 1884. It seems to have considerable variation of color on pronotum and hemelytra, the scutellum however always present a large black spot, pronotum mostly dark with collar, posterior margin and a spot on middle of disc paler.

**Proba tactilis** (Distant, 1893)

Medium size, scutellum white, two large apical spots on endocorium, clavus black internally.

**Proba vinaceus** (Distant, 1884)

Very similar to *Proba sallei* (Stål, 1862) but with a black spot on middle of mesoscutum and at base of scutellum.

**Prodomopsis cuneatus** (Distant, 1909)

This species is ochraceous, eyes black, second antennal segment (except median pale fascia) dark brown to black.

**Prodomus clypeatus** Distant, 1904

Described from Tenasserim has an ochraceous color with eyes and scutellum black, apex of second antennal segment reddish, corial commissure with a greenish tinge.

**Prodomus subflavus** Distant, 1904

Described from Sri-Lanka (Ceylon) the type is ochraceous to flavescent, eyes black, apex and base of second antennal segment reddish.

**Prodomus subviridis** Distant, 1904

Very small, ochraceous, eyes black, apex of second antennal segment red, segments III-IV black.

**Prodomus thaliae** China, 1944

Small, ochraceous with greenish legs, eyes, apical half of second antennal segment, segments III-IV black.

**Pseudobryocoris bicolor** Distant, 1884

This genus has the facies of *Eccritotarsus*

*nigrocruciatu*s Stål but with mesoscutum and scutellum totally covered by disc of pronotum.

**Pseudocarnus lineolatus** Distant, 1884

This genus seems to be closely related to *Perissobasis* Reuter, 1892, which has first antennal segment also compressed and foliaceous. Both species in the genus *lineolatus* and *magnus* have first antennal segment showing considerable variation.

**Pycnoderes gibbus** (Distant, 1884)

Pronotum not sulcated at middle, hemelytra with a single pale spot at base of embolium which is very thick; sulcus embolio-corial very deep.

**Ragwelellus kietae** Odhiambo, 1962

Described from Bougainville Island, pumpkin color, head, antenna and membrane black, femora black at apical half and with a lutescent ring at middle, tibiae dark at extreme base. Holotype is a male.

**Ragwelellus pallipes** Odhiambo, 1962

From Guadalcanal, with hemelytra castaneous to cinnamon or dark cinnamon, opaque, cuneus and nervure of membrane sanguineous, pronotum, scutellum shining black with lutescent spots, legs and antennae pale lutescent (except apical half of second segment and III-IV segments which are black; one paratype has pronotum and legs reddish, femora with a pale ring at middle.

**Ragwelellus vittatus** Odhiambo, 1962

This species is in synonymy with *Ragwelellus propinquus* Odhiambo, 1962 and *Ragwelellus peregrinus* Odhiambo, 1962 (*n. syn.*). It has priority since the two others referred here were described under *vittatus* in the key to species (Bull. Brit. Mus. Nat. Hist. Ent. 11(6): 247, 1962) and following full descriptions. General coloration pumpkin to red, head, antenna, pronotum (except median spot or longitudinal fascia and area of calli which are lutescent) apex of corium, membrane, cuneus, apical half of femora and extreme base of tibiae black. Color differences mentioned by

Odhiambo are usual in the species.

**Rayeria basifer** (Walker, 1973)

The type from Australia has the pronotum and scutellum reddish lutescent, corium and embolium with a sub-basal white spot.

**Rayeria braconoides** (Walker, 1873)

Also from Australia, pronotum lutescent with a shining black spot at middle, hemelytra with a sub-basal reddish spot.

**Sixeonotus perobscurus** (Distant, 1893)

Black, head, first and second pair of legs, base of second antennal segment, third and fourth segments pale.

**Sixeonotus tenebrosus** (Distant, 1893)

The coloration is totally black.

**Spartacus albatu**s Distant, 1884

Ochraceous, eyes, antenna (except base of segment I) black, outer margin of embolium and nervure of membrane dark.

**Stenodema panamensis** (Distant, 1893)

Antenna long and pilose, first segment with long hairs at base, lateral, carina of pronotum and middle longitudinal line of disc and scutellum whitish.

**Taedia attenuata** (Distant, 1883)

This species seems to be intermediate between *Taedia* Distant, 1883 and *Lampethusa* Distant, 1884. It has medium size and the facies of *Lampethusa anatina* Distant, 1884, the first antennal segment cylindrical incrassate and spotted with pale.

**Teratophylum insigne** Reuter, 1884

The line behind calli is punctate, second antennal segment thick, short and fusiform, general coloration brown, apex of scutellum,

basal 1/3 of exocorim and 2/3 of embolium, a small spot at apex of corium, a small spot at base of cuneus and a transversal fascia at middle of membrane pale, vertex marginated, hairs long and erect. A critical study of this genus and *Termitophyloides* Carvalho, 1955 must be made. They seem to be very close or even synonyms.

***Thaumastomiris piceatus* Distant, 1910**

Color red, eyes, antenna, a spot at middle of hemelytra (reaching most of clavus and neighbouring endocorium) dark, nervure and membrane fuscous male pygophore with a spiniform projection.

***Zanchius annulatus* Distant, 1904**

Pale to ochraceous with two black rings on second antennal segment.

***Zanchius gubernator* (Distant, 1909)**

The type has greenish hemelytra (aspered with green) and sparse minute pumpkin color

spots.

***Zoilus ater* Distant, 1893**

Size large, black, with segments I and II of antenna noticeably pilose.

***Zoilus fuliginus* Distant, 1893**

Black with xyphus of prosternum and spot on propleura lutescent; antenna with short pubescence.

***Zoilus guerreroensis* Distant, 1893**

Black, a longitudinal spot on pronotum narrowing backwards and reaching scutellum, head and neck lutescent.

***Zoilus rubromaculatus* (Distant, 1883)**

Black, a longitudinal spot on pronotum narrowing backwards, xyphus of prosternum and propleura reddish.