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Spolia Mentawiensia: Fulgo

## Spolia Mentawiensia: Fulgoroidea, Homoptera.

(Cixiidae, Meenoplidae, Delphacidae, Derbidae).

By F. Muir.

Hawaiian Sugar Planters' Experimental Station, Honolulu, T. H. (Figures 1-34).

With an Introduction by C. Boden Kloss,

Director of Museums, Straits Settlements and Federated Malay States.

- i. Introduction.
- ii. Systematic.
- iii. Account of the Collection.

#### i. Introduction.

The Mentawi Group, to the west of Sumatra, consists of the islands of Siberut, Sipora, and North and South Pagi. The first and northernmost is larger than the other three (which are fairly equal in size) put together.

Little was known of their entomology until I visited Siberut and Sipora during September-November 1924, accompanied by Mr. N. Smedley, Assistant Curator of the Raffles Museum, Singapore, and Dr. H. H. Karny, Assistant Entomologist, Zoological Museum, Buitenzorg, Java, with a party of native collectors. I have, as usual, to thank the Government of Netherlands India for the assistance and facilities afforded.

The islands are not very pleasant collecting grounds: they are mostly swamp out of which rise hills nowhere more than 500 metres high and generally difficult to get at, being surrounded by soft ground. The sago palm is common. The native villages are situated on the banks of rivers some distance upstream and there are scarcely any paths except those made by the Dutch military posts: these are generally through flat land and are often untraversable owing to floods. There is much rain throughout the year. The islands are unhealthy: in spite of systematic employment of quinine and other precautions, all the members of a party of fifteen, except myself, suffered from malaria either on the islands or soon after leaving them.

The group lies parallel to the west coast of Sumatra and about 90-130 kilometres distant. Siberut is about 110 kilometres long and about fifty broad, and its northern extremity is on Lat. 1° South.

The islands are apparently connected with each other by a sea-bottom of less than 200 metres, and most bathygraphical charts show a connection with Sumatra, via the Batu Islands to the northeast, by a narrow ridge of similar soundings; but I am inclined

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to doubt that this ridge is unbroken of the groups differ greatly, while, possess a much richer mammalian deep-water islands of Simalur and En West Sumatran chain of islands, the and differentiated than that of Niasbeing within the one hundred fathon may be, they certainly are not those (less than 75 metres) on which stan of Malaysia, i.e., the Peninsula, Sum

Apart from the doubtful connerounded by depths of 200-1000 met where directly between it and Sumatr with depths of 1000-2000 metres. Sof the West Sumatran Islands, in spheight, zoologically quite as distinct rest of Malaysia as the larger areas each other.

The islands are forested all over tained from varied localities near Siberut, in the island of that name, a from the sea-shore, low-lying ground, and from such hills as were accessible

During the journey to and from small collections of insects at Pada Tello, one of the shallow-water Biberut; and on the Pagi Islands with days.

As reports on the various collection will be published in various jo "Spolia Mentawiensia."

The following have appeared to Spolia Mentawiensia: Flora. I Miscellaneous Information,

Spolia Mentawiensia: Birds. Kloss, Ibis, April 1926, pp 10.

Spolia Mentawiensia: Reptiles A. Smith, Ann. and Mag., pp. 76-81.

ii, Systen

Andes siberutensis sp. nov Mnemosyne fuscinervis sp Oliarus angusticeps sp. nov Myndus dubius sp. nov. (\$ Ostama junctissima sp. no

1926 | Royal Asiatic Society.

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## Fulgoroidea, Homoptera.

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nırnal Malayan Branch [Vol. IV,

to doubt that this ridge is unbroken as indicated, for the faunas of the groups differ greatly, while, though the Mentawi Islands possess a much richer mammalian fauna than the undoubtedly deep-water islands of Simalur and Engano at the extremities of the West Sumatran chain of islands, the fauna is much more peculiar and differentiated than that of Nias Island, also represented as being within the one hundred fathom line. Whatever the depths may be, they certainly are not those of the shallow Sunda shelf (less than 75 metres) on which stand almost all the land-masses of Malaysia, *i.e.*, the Peninsula, Sumatra, Java, Bali, Borneo, etc.

Apart from the doubtful connecting ridge the group is surrounded by depths of 200-1000 metres of water; further, everywhere directly between it and Sumatra lies the long Mentawi Basin with depths of 1000-2000 metres. Such conditions render several of the West Sumatran Islands, in spite of small size and lack of height, zoologically quite as distinct from each other and from the rest of Malaysia as the larger areas of that sub-region are from each other.

The islands are forested all over, and our material was obtained from varied localities near the Government stations of Siberut, in the island of that name, and Sioban in Sipora: it came from the sea-shore, low-lying ground, the swamps, cultivated areas, and from such hills as were accessible.

During the journey to and from the islands we also made small collections of insects at Padang, West Sumatra; on Pulau Tello, one of the shallow-water Batu Group to the north of Siberut; and on the Pagi Islands where Dr. Karny spent several days.

As reports on the various collections obtained are prepared they will be published in various journals under the general title "Spolia Mentawiensia."

The following have appeared to date:—

Spolia Mentawiensia: Flora. H. N. Ridley, Kew Bulletin of Miscellaneous Information, No. 2, 1926, pp. 56-94.

Spolia Mentawiensia: Birds. F. N. Chasen and C. Boden Kloss, Ibis, April 1926, pp. 269-305. Plate iii and Fig. 10.

Spolia Mentawiensia: Reptiles and Amphibians. Malcolm A. Smith, Ann. and Mag., Nat. Hist. (9) XVIII, 1926, pp. 76-81.

#### ii. Systematic.

Andes siberutensis sp. nov. (Siberut Id.)
Mnemosyne fuscinervis sp. nov. (Sipora Id.)
Oliarus angusticeps sp. nov. (Sipora Id.)
Myndus dubius sp. nov. (Siberut Id.)
Ostama junctissima sp. nov. (Siberut Id.)

Malaxa bispinnata sp. nov. (Sipora Id.) Ugyops insularis sp. nov. (North Pagi Id.) Dicranotropis insignis sp. nov. (Siberut Id.) Neocyclakara flaveola sp. nov. (Siberut Id.) Kamendaka opacipennis sp. nov. (Siberut Id.) Kamendaka karnyi sp. nov. (Sipora Id.) Megatropis karnyi sp. nov. (Sipora Id.) Megatropis siberutensis sp. nov. (Siberut Id.) Megatropis simplex sp. nov. (Siberut Id.) Mysidiodes multimaculata sp. nov. (Sipora Id.) Rhotana bicolor sp. nov. (Sipora Id.) Rhotana semipalinus sp. nov. (Sipora Id.) Pamendanga siporensis sp. nov. (Sipora Id.) Pamendanga rubicunda sp. nov. (Sipora Id.) Pamendanga diffusa sp. nov. (North Pagi Id.) Zoraida smedleyi sp. nov. (Siberut Id.) Zoraida karnyi sp. nov. (Siberut Id.) Zoraida padangensis sp. nov. (West Sumatra) Pseudohelcita nitida sp. nov. (Sipora Id.) Zeugma elegans sp. nov. (Sipora Id.) Zeugma karnyi sp. nov. (Siberut Id.)

#### iii. Account of the Collection.

Cixiidae, Meenophidae, Delphacidae, Derbidae.

The collection dealt with in this paper was received from Mr. C. Boden Kloss, Director of the Raffles Museum, Singapore, and was made mostly by Dr. H. H. Karny in the Mentawi Islands off the west coast of Sumatra. Very little was known of the Fulgorids of these islands and so the present collection is of great interest. The island of Nias, to the north of the Mentawi group is much better known and the high endemism there justified us in expecting a similar high percentage of endemic insects in the southern islands. So very little is known of the Fulgorids of Sumatra that it is difficult to draw any conclusions at present. Of the thirty-six species dealt with twenty-six have been treated as new to science, one unidentified and nine as occurring in other places. Of these latter there appears to be more connection with Borneo than elsewhere, but a better knowledge of the Sumatra Fulgorids is very desirable. The new species are all related to other Malaysian species. In the following pages each collector's initials are attached to the specimens obtained by him.

#### CIXIIDAE.

#### Andes Stål.

## 1. Andes siberutensis sp. nov. Fig. 1.

Male: length 3 mm.; tegmen 4.5 mm.

Stramineous or light brown, a series of darker marks on genae and sides of vertex, a few minute dark specks on lateral portions of pronotum, darker over mesonotum with slightly darker brown

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over lateral carinae; two small darl very indistinct one on second. Teg cent, a stramineous mark from base across tegmen to middle of costa, darker broken area, a dark mark at light brown in apical cells; veins s many brown granules, smaller and half. Wings hyaline, slightly opaq fuscous.

Genitalia figured; the apex of produced into four long, curved s into a plate, the dorsal aspect prod and one long and slender spine. slightly curved ventrad.

Described from two males from There is a very dark female f female as that sex is generally the

species comes near to Andes trispin There is a large dark female w

name without the male.

# Kirbyana l

2. Kirbyana javana Muir. Fig. 2 One male specimen from Sipora

This species was originally de from Java; the present specimen colour and only a male from the ty be a wrong identification. The ger

#### Mnemosyr

This is a tropicopolitan genus somewhat alike but the male genit

Mnemosyne fuscinervis sp. 1 Male: Length 6.3 mm.; tegm

Five distinct mesonotal carina apex round, much wider than ba (concave), oblique carinae joining terior of middle, base angularly e carinae of frons and clypeus dis a scar but not interrupting carina. 2, 3, 4, 4*a*.

Genitalia figured; the aedeag usual in the genus, the penis and tiated; when at rest the genital sty margins.

Head and pronotum light l darker, mesonotum and tegulae i brown, abdomen darker brown. brown, apical veins lighter than re-

sp. nov. (Sipora Id.) nov. (North Pagi Id.) is sp. nov. (Siberut Id.) la sp. nov. (Siberut Id.) nnis sp. nov. (Siberut Id.) sp. nov. (Sipora Id.) p. nov. (Sipora Id.) usis sp. nov. (Siberut Id.) sp. nov. (Siberut Id.) iculata sp. nov. (Sipora Id.) nov. (Sipora Id.) s sp. nov. (Sipora Id.) sis sp. nov. (Sipora Id.) nda sp. nov. (Sipora Id.) sp. nov. (North Pagi Id.) . nov. (Siberut Id.) ov. (Siberut Id.) sp. nov. (West Sumatra) sp. nov. (Sipora Id.) 10v. (Sipora Id.) ov. (Siberut Id.)

#### of the Collection.

ae, Delphacidae, Derbidae.

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#### XIIDAE.

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over lateral carinae; two small dark bands on first femora and a very indistinct one on second. Tegmina hyaline, slightly opalescent, a stramincous mark from base to middle of clavus and then across tegmen to middle of costa, the borders of this area with darker broken area, a dark mark at apex of clavus, mottled with light brown in apical cells; veins same color as membrane, with many brown granules, smaller and more numerous over apical half. Wings hyaline, slightly opaque and slightly fuscous, veins fuscous.

Genitalia figured; the apex of periandrium on ventral aspect produced into four long, curved spines joined together at base into a plate, the dorsal aspect produced into a short, thick spine and one long and slender spine. Apex of anal segment round, slightly curved ventrad.

Described from two males from Siberut (H. H. K. 9. ix. 1924).

There is a very dark female from Sipora which may be the female as that sex is generally the darker in this genus. This species comes near to *Andes trispinosus* Muir.

There is a large dark female which I do not feel disposed to name without the male.

#### Kirbyana Distant.

#### 2. Kirbyana javana Muir. Fig. 2.

One male specimen from Sipora )H. H. K. 25. ix. 1924).

This species was originally described from a single female from Java; the present specimen agrees with it in build and colour and only a male from the type locality can tell whether this be a wrong identification. The genitalia are figured.

#### Mnemosyne Stål.

This is a tropicopolitan genus. The faces of the species are somewhat alike but the male genitalia are very different.

## 3. Mnemosyne fuscinervis sp. nov. Figs. 3, 4.

Male: Length 6.3 mm.; tegmen 6.7 mm.

Five distinct mesonotal carinae. Vertex longer than broad, apex round, much wider than base, lateral margins obstruate (concave), oblique carinae joining lateral margins slightly anterior of middle, base angularly emarginate; medio-longitudinal carinae of frons and clypeus distinct, median ocellus forming a scar but not interrupting carina. M with five apical veins, Ml, 2, 3, 4, 4a.

Genitalia figured; the aedeagus much more simple than is usual in the genus, the penis and periandrium but little differentiated; when at rest the genital styles meeting all along the inner margins.

Head and pronotum light brown, the latter slightly the darker, mesonotum and tegulae much darker brown, legs light brown, abdomen darker brown. Tegmina hyaline, veins dark brown, apical veins lighter than rest; clavus dark brown, opaque,

extending into corium, a dark brown patch at apex of Sc and R, R and M1, M4 and 4a and Cu, the rest of tegmina slightly fuscous or yellowish; veins with distinct granules bearing dark macrochaetae, a number of dark granules bearing dark macrochaetae in middle of cells both on basal and apical cells. Wings hyaline slightly fuscous, with dark brown veins.

Female: length 6.2 mm.; tegmen 7.3 mm.

In general build similar to male. Ventral view of ovipositor figured; pygofer wider than long, subovate, anal segment about as long as pygofer, narrow, sides straight, parallel.

In color similar to male but the infuscation at apex of M4

and 4a extending along M4 to basal infuscation.

Described from twenty-two males and eleven females from Siberut (H. II. K. September 1924) and Sipora (H. H. K. October 1924).

The type is from Sipora; there appears to be no difference between specimens from the two islands.

#### Oliarus Stål.

#### 4. Oliarus angusticeps sp. nov.

Female: length 4.3 mm.; tegmen 5.4 mm.

Length of vertex nearly three times (2.8) the width between the basal angles; base angularly emarginate; areolets long and very narrow reaching to about the middle of vertex, the fork of medial frontal carina forming a small, oval area. Claval vein forking about middle of clavus, Cu fork slightly basad and Sc + R fork still slightly more basad. The hand tarsal joints with spines at apex. Pygofer much broader than long, ovipositor styles about as long as pygofer, flat, the anterior pair slightly lanceolate, the posterior pair wider and slightly longer with the apex narrowly rounded; anal segment large, wide, widest near base gradually narrowing to apex which is truncate.

Yellow or light brown; the mesonotum dark brown with slightly lighter carinae; abdomen dark brown lighter along posterior margins of stermites. Tegmina hyaline; a dark brown mark across middle of clavus, over base of Cu fork to R, a few dark marks near apex in apical cells, a dark mark at apex of costal cell, the cross veins and apical cross veins fuscous, stigma yellowish, Wings hyaline, veins brown, apical portion slightly fuscous.

Described from two females from Sipora (H. H. K. 31.x.1924).

#### Myndus Stål.

## 5. Myndus dubius sp. nov.

Female: length 2.7 mm.; tegmen 3 mm.

Length of vertex 1.4 times the width of base, base twice the width of apex, transerve carina about middle, very ill defined in some specimens. Median ocellus present, length of frons slightly greater than width. Pygofer longer than wide, with median longitudinal depression, ovipositor complete, slightly curved, a little longer than pygofer.

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Brown; darker over vertex, fron of mesonotum, abdomen and pygofer, dominal stermites lighter. Tegmina brown mark from basal cell along Cobranches off over nodal line to node veins to apex of Cul, a small dark man at apex of each apical vein. Wings secretion, veins brown at base lighter t

Described from seven females, si and 26, ix, 1924) and one from Sipor-

Bennaria Me

Bennaria clarescens (Walker)?
 Benna clarescens Walker, 1857,
 p. 158.

Three female specimens from Si ker's descriptions. The type specimen writer has a specimen from Singap species. An examination of males n (Two specimens C. B. K. and N. S., S H. H. K. 11.x.1924).

MEENOPLI Nisia Melic

## 7. Nisia atrovenosa (Leth).

Three females from Siberut (H. The type locality of this species is are likely to be this species. Unfor comparison with specimens identified localities. This species has been idensome records being misidentifications.

DELPHACI Ostama Wa

This genus was hitherto known represented in the British Museum by species is nearly allied to *O. juncta* W. The spur is awl-shape, in transverse

8. **Ostama junctissima** sp. nov. F Male: length 4.2 mm.; tegmen

Frons twice as long as wide, m on apical half, median carina obscure ing at middle, surface of frons rugu or near nodal line.

Brown; head, pronotum, mesonolegs and pleura lighter reddish brow O. juncta in having a large black paa light spot in middle and a light ysuture and first claval vein reachin lighter and more obscure mark near

rown patch at apex of Sc and R. he rest of tegmina slightly fuscous et granules bearing dark macroiles bearing dark macrochaetae in and apical cells. Wings hyaline n veins.

gmen 7.3 mm.

nale. Ventral view of ovipositor g, subovate, anal segment about 3 straight, parallel.

t the infuscation at apex of M4

sal infuscation.

males and eleven females from 4) and Sipora (H. H. K. October,

here appears to be no difference islands.

s Stål.

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e times (2.8) the width between emarginate; areolets long and ne middle of vertex, the fork of small, oval area. Claval vein u fork slightly basad and Sc + Rhe hand tarsal joints with spines han long, ovipositor styles about rior pair slightly lanceolate, the longer with the apex narrowly de, widest near base gradually

mesonotum dark brown with dark brown lighter along posina hyaline; a dark brown mark e of Cu fork to R, a few dark a dark mark at apex of costal veins fuscous, stigma yellowish. d portion slightly fuscous. om Sipora (H. H. K. 31.x.1924). Stål.

ien 3 mm.

e width of base, base twice the out middle, very ill defined in present, length of frons slightly r than wide, with median longiiplete, slightly curved, a little

al Malayan Branch [Vol. IV,

Brown; darker over vertex, frons, middle of clypeus, middle of mesonctum, abdomen and pygofer, the posterior margins of abdominal stermites lighter. Tegmina hyaline, slightly opaque, a brown mark from basal cell along Cu to apex of clavus where it branches off over nodal line to node then back over apical cross veins to apex of Cul, a small dark mark at fork of claval veins and at apex of each apical vein. Wings hyaline, opaque with waxy secretion, veins brown at base lighter towards apex.

Described from seven females, six from Siberut (H. H. K. 10 and 26, ix, 1924) and one from Sipora (H. H. K. 30.x.1924).

## Bennaria Melichar.

6. Bennaria clarescens (Walker)?

Benna clarescens Walker, 1857, Jour. Linn. Soc. Lond. Zool.

Three female specimens from Siberut which agree with Walker's descriptions. The type specimens were from Borneo, but the writer has a specimen from Singapore which he considers this species. An examination of males may show specific differences. (Two specimens C. B. K. and N. S., September 1924; one specimen H. H. K. 11.x.1924).

#### MEENOPLIDAE.

#### Nisia Melichar.

7. Nisia atrovenosa (Leth).

Three females from Siberut (H. H. K. 7.ix.1924).

The type locality of this species is Nias Island so these females are likely to be this species. Unfortunately there is no male for comparison with specimens identified as this species from other localities. This species has been identified from various localities, some records being misidentifications.

## DELPHACIDAE.

Ostama Walker.

This genus was hitherto known by one species from Borneo represented in the British Museum by one specimen. This present species is nearly allied to O. juncta Walker, but in color is distinct. The spur is awl-shape, in transverse section triangular.

Ostama junctissima sp. nov. Figs. 5, 6.

Male: length 4.2 mm.; tegmen 5 mm.

Frons twice as long as wide, margins slightly arcuate widest on apical half, median carina obscure, showing indications of forking at middle, surface of frons rugulose. The cubitus forking at or near nodal line.

Brown; head, pronotum, mesonotum and abdomen dark brown, legs and pleura lighter reddish brown. The tegmina differs from O. juncta in having a large black patch in middle of corium with a light spot in middle and a light yellow or white patch between suture and first claval vein reaching from base to middle and a lighter and more obscure mark near apex of clavus.

Pygofer long ventrally short dorsally, anal emargination obscure, very shallow, no anal angles, ventral margin deeply emarginate; anal segment fairly large, no armature; aedeagus and genital styles figured. The aedeagus is of the Asiracinid type, the penis long, mostly membraneous with a long slender spine.

Female: length 4.6 mm.; tegmen 5.4 mm.

In build and color similar to male. The ovipositor projecting beyond end of pygofer.

Described from one male and four females; one male and two females from Sipora Island (C. B. K. and N. S., October 1924), one female from Siberut Island (H. H. K. September 1924) and one female from Pulau Tello, Batu Islands (H. H. K. November 1924).

#### . Malaxa Melichar.

## 9. Malaxa bispinata sp. nov. Figs. 7, 8.

Male: length 1.2 mm.; tegmen 2.6 mm.

In general build typical of genus. Second segment of antenna more than twice the length of first.

Light brown or stramineous; basal half of frons dark brown extending on to genue beneath eyes; a dark brown transverse line on base of clypeus; a longitudinal dark mark on anterior side of antennae from base to apex. First and second tibiae brown, the coxae with a longitudinal brown mark, hind legs not so distinctly maked. Pronotum and mesonotum shiny light brown. Abdomen dark brown, lighter on ventral side.

Tegmina hyaline, costal cell yellowish, extending into radial cell, the margin from apex of costal cell to apex of tegmen fuscous extending on margin to apex of clavus; veins slightly stramineous. Wings hyaline with brownish veins.

Male genitalia figured.

Described from one male from Sipora (H. H. K. 25.x.1924).

This is a typical species with very distinct genitalia.

#### Ugyops Guer.

## 10. Ugyops insularis sp. nov. Figs. 9, 10.

Male: length 6.4 mm.; tegmen 7.7 mm.

Length of vertex in middle three times the width, the base on middle line being considerably anterior to middle of eyes, the lateral angles of base being carried back much further, the mediolateral carinae continued on to the frons as two separate carinae, gradually converging and meeting together near apex of frons. Antennae without longitudinal sulca on either segments. Sc + R and Cu forks about level, no stigma.

Stramineous; three longitudinal dark brown or black lines on frons, one on each side and one in the middle between the carinae, slightly fuscous between carinae on clypeus, fuscous between carinae of vertex, a longitudinal fuscous line on basal segment of antennae and the apical portion of the second segment dark. A

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few small fuscous marks on mediocontinuing on to the mesonotum, carir and middle legs fuscous. Abdomer stermites, less on tergites. Tegmina at apex of apical cells, running down M I and 2 cells, veins alternate lig bearing fine, fuscous macrotrichia. veins.

Genitalia figured.

Female similar to male. Ovipo segment which is longer than broad.

Described from four males and (H. H. K. 6.x.24), Siberut (H. H. K. Ids. (H. H. K. xi, 1924), Siberut (C

#### Dicranotropis

# 11. **Dicranotropis insignis** sp. nor Male: macropterous; length 2.0

Median frontal carina forking fourth from base; vertex slightly broa antennae extending slightly beyond segment nearly twice the length of diverging posteriorly, straight or very hind margin. Hind basitarsus about together, spur large, thin, subtectifo black teeth on hind margin.

Genitalia figured; the medio-ven

small round projections.

Stramineous; carinae of head an the carinae; dorsum of abdomen and the genital styles and spine of anal sa

Tegmina hyaline, slightly strar slightly extending into membrane a sparse, dark. Wings hyaline, veins

> Described from one male from S This comes near to D. fuscifrons

#### Peregrin

12. **Peregrinus maidis** (Ashmead One specimen from Siberut (H.

Sogata Dis

13. Sogata 4-spinosa Muir.

This was described from a macro There is one macropterous male and of Sipora (H. H. K., 25 and 27.ix.192) the type, the median light line on fro of pronotum and mesonotum being

t dorsally, anal emargination obgles, ventral margin deeply emarrge, no armature; aedeagus and agus is of the Asiracinid type, the with a long slender spine. men 5.4 mm.

to male. The ovipositor project-

d four females; one male and two . K. and N. S., October 1924), one H. K. September 1924) and one lands (H. H. K. November 1924).

Melichar.

Figs. 7, 8.

en 2.6 mm.

nus. Second segment of antenna

; basal half of frons dark brown es: a dark brown transverse line ıl dark mark on anterior side of rst and second tibiae brown, the mark, hind legs not so distinctly m shiny light brown. Abdomen

yellowish, extending into radial al cell to apex of tegmen fuscous avus; veins slightly stramineous.

1 Sipora (H. H. K. 25.x.1924). 1 very distinct genitalia.

Guer.

Figs. 9, 10. en 7.7 mm.

ree times the width, the base on nterior to middle of eyes, the I back much further, the medioe frons as two separate carinae, g together near apex of frons. ca on either segments. Sc + R

al dark brown or black lines on the middle between the carinae, n clypeus, fuscous between cascous line on basal segment of f the second segment dark. A

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few small fuscous marks on medio-lateral portion of pronotum continuing on to the mesonotum, carinae of mesonotum dark; front and middle legs fuscous. Abdomen with small dark marks on stermites, less on tergites. Tegmina hyaline, small fuscous spots at apex of apical cells, running down to apical cross veins in the M I and 2 cells, veins alternate light and dark, granules small, bearing fine, fuscous macrotrichia. Wings hyaline with fuscous

Genitalia figured.

Female similar to male. Ovipositor reaching to end of anal segment which is longer than broad.

Described from four males and one female. North Pagi Id. (H. H. K. 6.x.24), Siberut (H. H. K., 29.ix.24), Pulau Tello, Batu lds. (H. H. K. xi, 1924), Siberut (C. B. K. and N. S., ix, 1924).

## Dicranotropis Fieber.

11. Dicranotropis insignis sp. nov. Fig. 11.

Male: macropterous; length 2.0 mm.; tegmen 2.7 mm.

Median frontal carina forking between one third and one fourth from base; vertex slightly broader than long, carinae typical; antennae extending slightly beyond the base of clypeus, second segment nearly twice the length of first; lateral pronotal carinae diverging posteriorly, straight or very slightly curved, not reaching hind margin. Hind basitarsus about the same length as other two together, spur large, thin, subtectiform, with very many minute, black teeth on hind margin.

Genitalia figured; the medio-ventral margin produced into two

small round projections.

Stramineous; carinae of head and thorax lighter than between the carinae; dorsum of abdomen and the greater part of pygofer, the genital styles and spine of anal segment darker brown.

Tegmina hyaline, slightly stramineous; apical veins brown slightly extending into membrane at apex; granules very small, sparse, dark. Wings hyaline, veins brown.

Described from one male from Siberut (H. H. K. 7.ix.1924). This comes near to D. fuscifrons, but the genitalia are distinct.

#### Peregrinus.

12. Peregrinus maidis (Ashmead).

One specimen from Siberut (H. II. K., 7.ix.1924, No. 10).

#### Sogata Distant.

13. Sogata 4-spinosa Muir.

This was described from a macropterous male from Singapore. There is one macropterous male and one brachypterous female from Sipora (H. H. K., 25 and 27.ix.1924). The male is darker than the type, the median light line on frons, the vertex and the middle of pronotum and mesonotum being very distinct against the dark

brown or nearly black surroundings; the brown on tegmina is darker and the light area over apical Sc, R and M1 cells and the white commissure are more conspicuous.

In the brachypterous female the tegmina reach the middle of the eighth abdominal tergite. Dark brown, the apical portion of clypeus, the middle carina of frons, the vertex, the middle of the nota and a median line down abdominal dorsum nearly white, abdominal pleura and legs light; commissure of tegmina white.

#### DERBIDAE.

## Neocyclokara Muir.

#### 14. Neocyclokara flaveola sp. nov. Figs. 12, 13, 14.

Male: length 1.8 mm.; tegmen 4 mm.

The shoulder skeels are not quite so large as in N. flava, the genotype, otherwise it is quite typical.

Stramineous; legs lighter, abdomen reddish. Tegmina hyaline, slightly fuscous, veins reddish yellow. Wings hvaline, very slightly fuscous, veins light brown.

Male genitalia figured; anal segment roundly emarginate at apex; the inner margin of genital styles in ventral view produced on basal half, the outer margin with two small processes, one near base and the other about middle.

Described from one male from Siberut (H. H. K. 26,ix.1924). This is close to the only other species of this genus, *flava*, from the Philippine Islands.

#### Goneokara Muir.

#### 15. Goneokara pullum Muir.

One female from Siberut (H. H. K., 8.ix.1924). Previously known from Borneo and Mindanao.

#### Vekunta Distant.

#### 16. Vekunta sp

One female specimen from Sipora (H. H. K., 2.xi.1924), closely related to V. pseudobadia Muir, of Java, but it differs in having the light mark at apex of costal cell much smaller and without a dark mark in its centre. It does not appear to be V. nitida (Bierm.) of Sumatra. Without a male I do not care to describe it as new.

## Kamendaka Distant.

# Kamendaka (Eosaccharissa) opacipennis sp. nov. Fig. 15.

Male: length 2.3 mm.; tegmen 3.7 mm.

Head, pronotum and legs light stramineous, a spot on genae in front of eyes and base of clypeus fuscous, mesonotum fuscous brown, apex of rostrum and front tibiae fuscous; abdomen dark brown. Tegmina fuscous with darker veins, opaque with white powdery wax secretion; wings slightly fuscous with darker veins. The head, especially the lateral carinae of vertex, and thorax with white, powdery wax secretion.

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The male genitalia figured, a dis medio-ventral process of pygofer.

Described from one male from

## Kamendaka (Eosaccharissa)

Male: In size and colour simi mesonotum lighter, the tegmina dar male genitalia are very distinct.

One male specimen from Sipora

#### Phantosmatocera

## 19. Phantosmatocera unopuncta

One female from Siberut (H. H. to be this species, hitherto only know finding of the male will settle the con

## Megatropis

## Megatropis karnyi sp. nov.

Male: length 4.6 mm; tegmen 6 In profile head projecting consi vertex and base of frons forming t distinctly narrower than thorax but about half the width of base; latera very deep, not meeting together ex portion of frons. Antennae irregular beyond head, both arms subequal base of inner arm. Clypeus with Carinae of mesonotum very indistin before the middle of tegmen, Sc cell slightly beyond base; base of Cu sin closing Cu cell.

Margins of pygofer entire, later ment median size, sides deflexed, a dorsal surface excavate beyond and styles reaching slightly beyond ana apex oblique, slightly sinuate, the a duced, rounded, a small curved spine

Light stramineous; a red mark apex. Tegmina light stramineous, or lighter, ten distinct red spots or sector, one between Sc and R, two be M and Cu, two between forks of Cu and one between the claval veins, the A small black spot at apex of clavu with light veins.

Described from one male from S While the head is not quite so

clearly belongs to this genus. The tinguish it from other species of th

undings; the brown on tegmina is rapical Sc, R and M1 cells and the aspicuous.

ale the tegmina reach the middle of Dark brown, the apical portion of frons, the vertex, the middle of the n abdominal dorsum nearly white, it; commissure of tegmina white.

#### BIDAE.

okara Muir.

p. nov. Figs. 12, 13, 14.

men 4 mm.

ot quite so large as in N. flava, the typical.

abdomen reddish. Tegmina hyadish yellow. Wings hyaline, very own.

al segment roundly emarginate at al styles in ventral view produced with two small processes, one near le.

óm Siberut (H. H. K. 26.ix.1924). er species of this genus, *flava*, from

ara Muir.

I.H. K., 8.ix.1924). neo and Mindanao.

1 Distant.

pora (H. H. K., 2.xi.1924), closely of Java, but it differs in having cell much smaller and without a pes not appear to be *V. nitida* a male I do not care to describe

ta Distant.

sa) opacipennis sp. nov. Fig. 15. en 3.7 mm.

th stramineous, a spot on genae beus fuscous, mesonotum fuscous it tibiae fuscous; abdomen dark larker veins, opaque with white ghtly fuscous with darker veins. rinae of vertex, and thorax with

nal Malayan Branch [Vol. IV,

The male genitalia figured, a distinguishing point is the large, medio-ventral process of pygofer.

Described from one male from Siberut (II.H. K., 3.x.1924).

## 18. Kamendaka (Eosaccharissa) karnyi sp. nov. Fig. 16.

Male: In size and colour similar to K. opacipenuis but the mesonotum lighter, the tegmina darker with reddish veins. The male genitalia are very distinct.

One male specimen from Sipora (H. H. K., 1.xi.1924).

#### Phantosmatocera Kirkaldy.

#### 19. Phantosmatocera unopunctata Muir.?

One female from Siberut (H. H. K., 24.ix.1924) which appears to be this species, hitherto only known from Amboina, but only the finding of the male will settle the correct identity of this specimen.

#### Megatropis Muir.

#### 20. Megatropis karnyi sp. nov.

Male: length 4.6 mm; tegmen 6.1 mm.

In profile head projecting considerably in front of eyes, the vertex and base of frons forming two distinct curves; the head distinctly narrower than thorax but the vertex quadrate, the apex about half the width of base; lateral carinae of vertex and frons very deep, not meeting together except at their edges on apical portion of frons. Antennae irregularly U shape, projecting slightly beyond head, both arms subequal in length, slightly swollen at base of inner arm. Clypeus with median carina, no laterals. Carinae of mesonotum very indistinct. Sc and R forking slightly before the middle of tegmen, Sc cell long, M arising from Sc  $\div$  R, slightly beyond base; base of Cu sinuous, Cu I bent at right angle closing Cu cell.

Margins of pygofer entire, lateral margins straight; anal segment median size, sides deflexed, apex rounded, curved ventrad; dorsal surface excavate beyond anus which is near base; genital styles reaching slightly beyond anal segment, subacinacicate, the apex oblique, slightly sinuate, the apical outer angle slightly produced, rounded, a small curved spine on outer margin about middle.

Light stramineous; a red mark on side of head from eye to apex. Tegmina light stramineous, veins same color as membrane or lighter, ten distinct red spots on cells before the first median sector, one between Sc and R, two between R and M, three between M and Cu, two between forks of Cu 1, one between Cu and suture and one between the claval veins, the apical cells slightly reddish. A small black spot at apex of clavus. Wings slightly stramineous with light veins.

Described from one male from Sipora (H. H. K., 21.x.1924).

While the head is not quite so broad as the genotype yet it clearly belongs to this genus. The distinct reddish spots distinguish it from other species of the genus.

#### 21. Megatropis siberutensis sp. nov.

Male: length 3.8 mm; tegmen 6.1 mm.

Head slightly narrower than thorax; vertex quadrate, apex considerably narrower than base, lateral keels large, those of frons nearly meeting together at their edges. Antennae not quite reaching to apex of head, simple fairly stout, swollen at base but without prong.

Ventral margin of pygofer slightly rounded, lateral margins straight; anal segment fairly large, concave above convex below, apex rounded. Genital styles fairly narrow, margins subparallel, apex bluntly pointed and curved dorsad, a small angular projection from the middle of the inner margin.

Light yellow, with a white, waxy secretion over the greater portion; a light reddish mark over genae in front of eyes. Tegmina hyaline, opaquely white with waxy secretion, veins yellowish, yellowish over Cu area and along the margin of commissure.

Described from one male from Siberut (H. H. K., 11.ix.1924).

## 22. Megatropis simplex sp. nov.

Male: length 3.8 mm; tegmen 5 mm.

Head narrower than thorax; vertex longer than broad, apex narrow, lateral carinae large; from narrow with large lateral carinae which meet together along their outer margins. Antennae flat, thin, broad and fairly long, slightly thickened at the base but without any sign of a knob or prong.  $Sc \div R$  forking about middle, M arising from near base of  $Sc \div R$ , Cu forking slightly basad of Sc + R fork.

Light yellow; legs and sternites of abdomen lighter; tegmina hyaline, opaquely white, veins yellow, a small dark brown mark at apex of clavus with a very faint infuscation from that point to apex of Sc.

The genitalia are near to those of M. karnyi but the genital styles have not sinuous apices.

Female: length 2.8 mm; tegmen 5.3 mm.

These agree with the male in colour and build but they have the antennae thick, terete and short, hardly reaching beyond the eye.

Described from one male and one female from Siberut (types) (H. H. K., 9.ix.1924) and two females from Sipora (H. H. K., 15.x.1924).

#### Mysidioides Matsumura.

## 23. Mysidioides multimaculata sp. nov.

Female: length 2 mm.; tegmen 4.3 mm.

Stramineous; dark brown on thorax behind eyes, the middle and lateral portions light, slightly fuscous on legs. Tegmina hyaline, slightly fuscous, veins alternately marked with small

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white and black or fuscous marks, sisting of two short, longitudinal m Wings hyaline, slightly fuscous with

Described from one female from The specimen is not in very good of the veins is very distinctive and described species.

The genera *Rhotana* and *Levu* the characters at present recognised generic value can be found they we But among the species included in characters in the venation which mathe species, either into groups within genera. The arrangement of the cubitus as illustrated in *Rhotana latype* fig. 18) and *Levu matsumurai* Matsumura, not Stål) is a case in poing *Levu* Kirkaldy did not recognise *Rhotana* and not *Paricana*, had he dwould not have erected *Levu*.

24. **Rhotana bicolor** sp. nov. Fig. Male: length 3 mm; tegmen 5.9 Carinae of frons meeting together vertex also meeting together for the length; shoulder keels distinct but so and Cu as in *R. latipennis* (Fig. 18). to base of Ms 2, the forking of Sc the basal M cell.

Anal segment very small, apex gins of pygofer subangularly prodigenital styles considerably longer that on basal half, apex narrowly rounded

Stramineous, sordid over prono abdomen reddish. Tegmina reddish beyond apical cross veins, the apical portion reddish, in white portion ye between Sc, R and M with the reddish brane slightly, which area is border small semihyaline mark in R cell be hyaline slightly fuscous, with a dark half.

Described from one male from

25. Rhotana semiopalinus sp. no Male: length 2.7 mm; tegmen Carinae of apex of vertex a shoulder keels small but distinct.

distance; triangular cell only reachir 1926] Royal Asiatic Society.

itensis sp. nov.

a: tegmen 6.1 mm.

wer than thorax; vertex quadrate, apex an base, lateral keels large, those of frons t their edges. Antennae not quite reachde fairly stout, swollen at base but with-

ygofer slightly rounded, lateral margins irly large, concave above convex below, tyles fairly narrow, margins subparallel, turved dorsad, a small angular projection ter margin.

white, waxy secretion over the greater tark over genae in front of eyes. Tegnite with waxy secretion, veins yellowish, d along the margin of commissure. ale from Siberut (H. H. K., 11.ix.1924).

sp. nov.

: tegmen 5 mm.

horax; vertex longer than broad, apex ge; frons narrow with large lateral caalong their outer margins. Antennae long, slightly thickened at the base but or prong. Sc + R forking about middle, of Sc + R, Cu forking slightly basad of

sternites of abdomen lighter; tegmina eins yellow, a small dark brown mark ry faint infuscation from that point to

to those of M. karnyi but the genital es.

1; tegmen 5.3 mm.

tale in colour and build but they have nd short, hardly reaching beyond the

e and one female from Siberut (types) two females from Sipora (H. H. K.,

oides Matsumura.

culata sp. nov.

tegmen 4.3 mm.

vn on thorax behind eyes, the middle slightly fuscous on legs. Tegmina eins alternately marked with small

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white and black or fuscous marks, the dark marks after consisting of two short, longitudinal marks, the apical veins white. Wings hyaline, slightly fuscous with light brown veins.

Described from one female from Sipora (H. II. K. 31.x.1924)

The specimen is not in very good condition but the speckling of the veins is very distinctive and separates it from any other described species.

Rhotana Walker.

The genera *Rhotana* and *Levu* are difficult to keep apart on the characters at present recognised and unless others of greater generic value can be found they will have to be amalgamated. But among the species included in these two genera we find characters in the venation which may be of value for separating the species, either into groups within one genus or into two more genera. The arrangement of the first median sector and the cubitus as illustrated in *Rhotana latipennis* Walker (the genotype fig. 18) and *Levu matsumurai* Muir (= *Rhotana nitriceps* Matsumura, not Stål) is a case in point. At the time of describing *Levu* Kirkaldy did not recognise that Walker's figure was of *Rhotana* and not *Paricana*, had he done so it is possible that he would not have erected *Levu*.

## 24. Rhotana bicolor sp. nov. Fig. 17.

Male: length 3 mm; tegmen 5.9 mm.

Carinae of frons meeting together on basal third, carinae of vertex also meeting together for the greater portion of their length; shoulder keels distinct but small. Arrangement of Ms 1 and Cu as in R. latipennis (Fig. 18). The triangular cell reaching to base of Ms 2, the forking of Sc + R and M about middle of the basal M cell.

Anal segment very small, apex rounded, entire; lateral margins of pygofer subangularly produced, ventral margin entire; genital styles considerably longer than broad; slightly narrowed on basal half, apex narrowly rounded.

Stramineous, sordid over pronotum and mesonotum, apex of abdomen reddish. Tegmina reddish brown from base to a little beyond apical cross veins, the apical portion white, veins in dark portion reddish, in white portion yellowish, the apical cross veins between Sc, R and M with the reddish extending into the membrane slightly, which area is bordered with darker brown, a very small semihyaline mark in R cell before apical cross vein. Wings hyaline slightly fuscous, with a dark mark in middle of the apical half.

Described from one male from Sipora (H. H. K., 2.xi.1924).

#### 25. Rhotana semiopalinus sp. nov.

Male: length 2.7 mm; tegmen 4.8 mm.

Carinae of apex of vertex and base of frons touching; shoulder keels small but distinct. Ms Ia touching Cu I for a short distance; triangular cell only reaching half way to Ms 2.

Stramineous, slightly fuscous over vertex, pronotum and mesonotum. Tegmina hyaline and opalescent over apical portion, reddish fuscous over basal portion, the latter extending to middle of costal cell and base of Ms 2 anteriorly and to a little beyond apical cross veins posteriorly, veins in dark portion red, in light portion yellowish, the apical cross veins between Sc and Ms 2 margined with fuscous. Wings fuscous with hyaline at apex, veins reddish brown.

Described from one male from Sipora (H. H. K., 11.x.1924).

#### Acanthocera Melichar.

#### 26. Acanthocera punctifrons Mel.

One female specimen from Sipora (H. H. K., 12.x.1924) which is slightly darker than specimens from the Philippines but otherwise similar. It is difficult to separate this genus from *Pamendanga*.

#### Pamendanga.

## 27. Pamendanga siporensis sp. nov. Figs. 19, 20.

Female: length 4.3; tegmen 8.5; wing 3.7 mm.

In build and color this is so close to *P. fuscipennis* (Muir) that it can only be separated by the genitalia. In the latter the pregenital plate is angularly produced from sides to middle; in *P. siporensis* it is totally different and complex, best understood from figure.

Two females, one from Sipora (C. B. K. and N. S. October 1924) and one from Siberut (H. H. K., 15.ix.1924).

#### 28. Pamendanga rubicunda sp. nov. Fig. 21.

Male: length 2.8; tegmen 6.7; wing 2.6 mm.

Typical of genus; genitalia figured; the anus near base of anal segment, beyond anus attenuate, apex pointed; inner margin of genital styles entire, apex bluntly pointed and turned inward slightly; medio-ventral margin of pygofer slightly, roundly produced.

Red; antennae, legs and thorax slightly yellowish, apex of proboscis and apex of middle tibiae fuscous. Tegmina fuscous, darker over costal, subcostal radial and basal and apical median cells, a series of seven whitish spots along costa commencing near middle, a larger light spot at apex of M, veins bright red; there are some fainter light marks in basal R and cells between median sectors. Wings slightly fuscous with darker reddish veins.

Described from one male from Sipora (C. B. K. and N. S., October 1924).

This species is close to *P. albicosta* (Muir) from Java and *P. antigobe* (Kirk) from Borneo, but the genitalia are distinct.

## 29. Pamendanga diffusa sp. nov. Figs. 22, 23.

Male: length 3.7; tegmen 12; wing 3.8 mm.

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In build typical of the genus. The anal segment has a large projection ventral side; the ventral margin of the

Brown; lighter on clypeus and c behind eyes and dots, over carinae margin; abdomen darker brown wit segment and sides of pygofer also ligh with diffused brown or fuscous; a se subcostal and radial cells, veins brow especially in apical half. Wings hy fuscous, veins brown.

Female; similar to the male in

genital plate figured.

Described from three males and t Island (H. II K., 6 and 18.x.1924) and 11.x.1924).

This species comes nearest to P. 1

## Zoraida Kirl

30. Zoraida sylvicola Kirk.

One male from South Pagi Island This species was formerly only kn

31. Zoraida (Peggiopsis) smedle: Female: length 2 mm.; tegmen

Typical of the subgenus, the and sunken in the middle, eyes fairly segment subturbinate in outline in do broad, about equal in length to styles long, hind margin gradually and rou a small emargination in middle.

Stramineous; slightly darker ov notum and abdomen, darker brown genital plate. Tegmina hyaline, cos extending into basal median and are sectors, fuscous or sordid light brown four at apex with a small dark spot cross veins dark extending slightly at apical radial cross vein. Wings dark.

Described from one female from

September 1924).

I have a female from Philippi but there is no emargination in the the pregenital plate.

32. **Zoraida karnyi** sp. nov. Fig. 2
Male: length 3.8 mm.; tegmen 9
Antennae cylindrical or very
frons. Length of basal median cel
basal sector furcate and appearing

htly fuscous over vertex, pronotum and hyaline and opalescent over apical portion, asal portion, the latter extending to middle of Ms 2 anteriorly and to a little beyond eriorly, veins in dark portion red, in light apical cross veins between Sc and Ms 2 s. Wings fuscous with hyaline at apex,

e male from Sipora (H. H. K., 11.x.1924).

canthocera Melichar.

ectifrons Mel.

en from Sipora (H. H. K., 12.x.1924) which specimens from the Philippines but other-ficult to separate this genus from *Pamen*-

Pamendanga.

prensis sp. nov. Figs. 19, 20.

; tegmen 8.5; wing 3.7 mm.

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rom Sipora (C. B. K. and N. S. October erut (H. H. K., 15.ix.1924).

cunda sp. nov. Fig. 21.

egmen 6.7; wing 2.6 mm.

enitalia figured; the anus near base of anal ttenuate, apex pointed; inner margin of pex bluntly pointed and turned inward margin of pygofer slightly, roundly

and thorax slightly yellowish, apex of niddle tibiae fuscous. Tegmina fuscous, stal radial and basal and apical median nitish spots along costa commencing near ot at apex of M, veins bright red; there trks in basal R and cells between median fuscous with darker reddish veins.

male from Sipora (C. B. K. and N. S.,

to *P. albicosta* (Muir) from Java and *P.* rneo, but the genitalia are distinct.

a sp. nov. Figs. 22, 23. men 12; wing 3.8 mm.

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In build typical of the genus. The male genitalia figured; the anal segment has a large projection across the middle of the ventral side; the ventral margin of the pygofer is roundly produced.

Brown; lighter on clypeus and carinae of head, on pronotum behind eyes and dots, over carinae of mesonotum and on hind margin; abdomen darker brown with yellowish spots, the anal segment and sides of pygofer also light. Tegmina hyaline, marked with diffused brown or fuscous; a series of light spots in costal, subcostal and radial cells, veins brown diffusing into membrane, especially in apical half. Wings hyaline, slightly suffused with fuscous, veins brown.

Female; similar to the male in build and color. The sub-

genital plate figured.

Described from three males and three females from North Pagi Island (II. H K., 6 and 18.x.1924) and one from Sipora (H. H. K., 11.x.1924).

This species comes nearest to P. platypes (Muir).

Zoraida Kirkaldy.

30. Zoraida sylvicola Kirk.

One male from South Pagi Island (H. H. K. October 1924). This species was formerly only known from Borneo.

31. Zoraida (Peggiopsis) smedleyi sp. nov. Fig. 24. Female: length 2 mm.; tegmen 10.3; wing 4.4 mm.

Typical of the subgenus, the antennae distinctly flattened and sunken in the middle, eyes fairly large and prominent. Anal segment subturbinate in outline in dorsal view, slightly longer than broad, about equal in length to styles. Pregenital plate wider than long, hind margin gradually and roundly produced in middle with a small emargination in middle.

Stramineous; slightly darker over posterior portion of mesonotum and abdomen, darker brown along the hind margin of pregenital plate. Tegmina hyaline, costal, subcostal, radial cells and extending into basal median and around the bases of the median sectors, fuscous or sordid light brown; veins brown, lighter on the four at apex with a small dark spot at base of the light portion; cross veins dark extending slightly into the membrane especially at apical radial cross vein. Wings hyaline slightly fuscous, veins dark.

Described from one female from Siberut (C. B. K. and N. S., September 1924).

I have a female from Philippine Islands very close to this, but there is no emargination in the middle of the hind margin of the pregenital plate.

32. Zoraida karnyi sp. nov. Fig. 25.

Male: length 3.8 mm.; tegmen 9.6 mm.; wing 1.3 mm.

Antennae cylindrical or very slightly flattened longer than frons. Length of basal median cell about four times the width, basal sector furcate and appearing as part of Cu.

Anal angles of pygofer produced as long as genital styles, acute; anal segment small, not reaching to apex of anal angles, subparallel sided to near apex where it narrows, apex with minute angular emargination; medio-ventral process of pygofer subangular, apex rounded; genital styles narrow, curved inward on apical half, apices bluntly pointed, overlapping in middle line.

Stramineous; a dark spot on gena in front of antenna and another on the side of clypeus near base, abdomen yellowish, fuscous on hind margin of sixth and seventh tergites with some fuscous marks forming two broken medio-lateral lines; anal angles of pygofer and anal segment reddish, genital style and ventral portion of pygofer dark brown or black. Tegmina hyaline, Sc, R and M reddish, except at apex where they are darker, other veins brown, extending faintly into membrane at cross veins and bases of second and third sectors, three small dark spots near apex on R and two M veins; wings hyaline, sordid, veins light.

Described from one male from Siberut (II. H. K., 11.ix.1924).

This comes near to Z. lankana Dist. but the antennae are not quite so flattened.

#### 33. Zoraida padangensis sp. nov.. Fig. 26.

Male: length 4.6 mm; tegmen 11.5; wing 5.4 mm.

Antennae longer than frons, cylindrical, slightly enlarged towards apex, arista arising a little before apex. First median sector fuscate, appearing as part of cubitus, median basal cell large, length about seven times the width, five simple median sectors. Wings slightly less than half the length of tegmina.

Male genitalia closely related to *Z. cycnoptera* Dist, but the apex of anal segment is much more acute, the anal angles of pygofer more rounded and the genital styles broader and more rounded on apical half, both on outer and inner margins. Medioventral process gradually widening from base for a short distance then quickly narrowing to rounded apex.

Stramineous; a few lighter raised spots on pronotum, abdominal tergites dark brown with a light patch in middle of sixth and seventh; genitalia tinged with red. Tegmina hyaline; costal and subcostal cells with three or four fuscous marks in basal half, fuscous over apical half; radial cells fuscous with lighter dots which are larger in basal half, the dark fuscous extending out to base of second, third and fourth m.s.; basal median cell and extending to base of second sector light fuscous with lighter spots; Sc, R and M red, median sectors and rest of veins dark brown, cross veins with fuscous extending into membrane, a few light fuscous marks along side of the sectors and Cus and a slightly darker one at the apex of each Cu and sectors; three minute light spots at apex between veins and a dark minute one on veins slightly basad, the apical spot at apex of fourth sector larger than others. Wings hyaline, slightly fuscous, veins darker fuscous.

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Described from one male from P. K. and N. S. November 1924).

This comes near to Z. cycnoptera

## Pseudohelcita

Hitherto this genus was represent Guinea and Mysol.

34. Pseudohelcita nitida sp. nov.

Male: length 4.6 mm.; tegmen 12 In profile frons subconically prodemarkation between frons and vegradually narrowing, frons narrow, siwhere it suddenly widens, a faint siand frons to where it enlargens. Cly lateral carina large. Antennae lor slightly enlarged about one third frarticulated, roughened all over with t

The Sc and R joined as far as that point Sc cell very narrow and to convex R to near apex; R cell narrow widens; basal cell broad. M with sector fuscate and appearing as part turned under to form the anal fold. but there are three longitudinal mapresent, the scutellum large. Genital

Shiny, clypeus and genae dark by vertex lighter; first segment antenna pronotum dark brown with lateral as broadest on lateral margins, in the across to the anterior margins; medarkest, hind margin yellow, abdoined margins. Third and fourth ste coxae yellow, hind coxae brown, fer darkest, tibiae reddish brown with thind tarsi light. Tegmina clear bradial (except apical) cells dark, thand a large dot in apical subcostal brown.

Female; slightly larger but of genital plate large, hind margin an middle; anal segment not so lon narrowing to apex which is rounded

Described from one male and badly damaged (C. B. K. and N. S

## Proutista I

35. **Proutista moesta** (Westw.). One female from Siberut Id. (1924). One male and three female

er produced as long as genital styles, not reaching to apex of anal angles, subx where it narrows, apex with minute edio-ventral process of pygofer subnital styles narrow, curved inward on ointed, overlapping in middle line.

spot on gena in front of antenna and ypeus near base, abdomen yellowish, sixth and seventh tergites with some broken medio-lateral lines; anal angles t reddish, genital style and ventral poror black. Tegmina hyaline, Sc, R and where they are darker, other veins o membrane at cross veins and bases of aree small dark spots near apex on R aline, sordid, veins light.

le from Siberut (H. H. K., 11.ix.1924). ankana Dist. but the antennae are not

sp. nov.. Fig. 26.

tegmen 11.5; wing 5.4 mm.

rons, cylindrical, slightly enlarged tolittle before apex. First median sector of cubitus, median basal cell large, he width, five simple median sectors. the length of tegmina.

related to Z. cycnoptera Dist. but the more acute, the anal angles of pygofer il styles broader and more rounded on ad inner margins. Medioventral proa base for a short distance then quick-

thter raised spots on pronotum, abwith a light patch in middle of sixth d with red. Tegmina hyaline; costal e or four fuscous marks in basal half, adial cells fuscous with lighter dots If, the dark fuscous extending out to urth m.s.; basal median cell and exctor light fuscous with lighter spots; ectors and rest of veins dark brown, tending into membrane, a few light the sectors and Cus and a slightly th Cu and sectors; three minute light nd a dark minute one on veins slightly x of fourth sector larger than others. us, veins darker fuscous.

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Described from one male from Padang, West Sumatra (C. B. K. and N. S. November 1924).

This comes near to Z. cycnoptera and Z. melichari.

#### Pseudohelcita Muir.

Hitherto this genus was represented by one species from New Guinea and Mysol.

34. Pseudohelcita nitida sp. nov. Figs. 27, 28, 29.

Male: length 4.6 mm.; tegmen 12 mm.; wing 1.3 mm.

In profile frons subconically produced in middle; no line of demarkation between frons and vertex, vertex widest at base gradually narrowing, from narrow, subparallel sided to near apex where it suddenly widens, a faint suture along middle of vertex and from to where it enlargens. Clypeus large, no median carina, lateral carina large. Antennae longer than frons, cylindrical, slightly enlarged about one third from apex where the arista is articulated, roughened all over with the sense organs.

The Sc and R joined as far as the apex of basal cell, beyond that point Sc cell very narrow and the Sc covered by the strongly convex R to near apex; R cell narrow to near apex where it slightly widens; basal cell broad. M with five sectors, the first or basal sector fuscate and appearing as part of Cu; the margin of clavus turned under to form the anal fold. Mesothorax without carinae but there are three longitudinal marks where carinae exist when present, the scutellum large. Genitalia figured.

Shiny, clypeus and genae dark brown, nearly black, frons and vertex lighter; first segment antenna yellow, second dark brown; pronotum dark brown with lateral and hind margins yellow which is broadest on lateral margins, in the middle the yellow marks run across to the anterior margins; mesonotum brown, the scutellum darkest, hind margin yellow, abdomen dark brown with lighter hind margins. Third and fourth sternites yellow; first and second coxae yellow, hind coxae brown, femora reddish brown, hind pair darkest, tibiae reddish brown with the apices light, fore tarsi dark, hind tarsi light. Tegmina clear hyaline; costal, subcostal and radial (except apical) cells dark, the base of costal and some data and a large dot in apical subcostal red; veins dark brown; wings

Female; slightly larger but otherwise similar to male. Pregenital plate large, hind margin angularly produced from sides to middle; anal segment not so long as genital styles, gradually narrowing to apex which is rounded.

Described from one male and two females from Sipora all badly damaged (C. B. K. and N. S. October 1924).

#### Proutista Kirkaldy.

35. Proutista moesta (Westw.).

One female from Siberut Id. (C. B. K. and N. S. September 1924). One male and three females from Sipora Island (C. B. K.

and N. S., October 1924); two males from Sipora (H. H. K. October 1924).

This is one of the few widely distributed Derbidae. These specimens are slightly darker and larger than the Ceylon specimens, the white spots in costal cell are larger and there is no hyaline mark in apical cell between first and second median sectors.

Zeugma Westwood.

Six species of this genus were formerly recorded, one from India and the other five from Malaysia.

36. **Zeugma elegans** sp. nov. Figs. 30, 31.

Male: length 6 mm.; tegmen 13.3 mm.; wings 6.4 mm.

In build similar to the type of the genus (vittata Westw.); there is a distinct carina separating the vertex from the frons. The first median sector is fuscate and attached to the cubitus, apart from this there are ten simple median sectors.

The genitalia figured.

Light brown; a dark brown mark down middle of frons and clypeus, and across gena from eye to apex of frons, lateral carinae of frons and clypeus dark; a broad dark mark down middle of mesonotum, lighter in middle over median carina, a smaller mark on the lateral portions of the mesonotum; abdomen dark brown; tegmina hyaline, light brown with darker veins, fuscous over apical half, gradate cross veins fuscous, a darker mark near apex; a lighter mark across costal cell and base of subcostal, where the membrane is lighter the veins are red or yellowish. The wings hyaline, light fuscous with dark veins.

Described from one male from Sipora (H. H. K. October 1924).

This species is very distinct from Z. corporaali from Medan, Sumatra.

37. **Zeugma karnyi** sp. nov. Figs. 32, 33, 34.

Male: length 4.8 mm.; tegmen 9.2 mm.; wing 5 mm.

No distinct carina dividing froms from vertex; vertex and frons slightly narrower than in Z. elegans, no median frontal carina, middle of vertex and frons slightly tumescent and glabrous. Eight (on one tegmen seven) simple median sectors and the basal fuscate sector. Genitalia figured.

Stramineous; from extending on to genae and middle of clypeus extending into sides red, middle of vertex, frons and, to a lesser extent, clypeus black; middle of pronotum and mesonotum darker brown, along the lateral carinae and near lateral margins of mesonotum a slightly darker line. Front and middle femora each with two longitudinal dark lines, hind femora with only slight indications of such lines. Tegmina hyaline, stramineous, slightly fuscous over apical median cells and apical Sc and R cells, a light yellow patch in middle of R; veins yellow or reddish, gradate cross veins of M fuscous extending into cells, also the bases of M

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sectors extending into cells, a small between R and M and M and M sec spot on basal cell; wings hyaline, brownish.

Female slightly larger but in colo Described from one male and one K. September 1924).

This is nearest to Z. javana Mui genitalia are quite distinct from Z. co

## EXPLANATION OF

- 1. Andes siberutensis, lateral view
- 2. Kirbyana javana, lateral view o
- 3. Mnemosyne suscinervis, lateral
- 4. Mnemosyne fuscinervis, ventra
- Ostama junctissima, lateral vie and genital styles.
  - Ostama junctissima, genital styl
  - Malaxa bispinata, full view of
  - Malaxa bispinata, lateral view
- Ugyops insularis, ventral view
- 9.
- 10. Ugyops insularis, apex of aedeas
- 11. Dicranotropis insignis, full view
- Neocyclokara flaveola, lateral 12.
- 13. Neocyclokara flaveola, inner m
- 14. Neocyclokara flaveola, apex of
- 15. Kamendaka opacipennis, latera
- 16. Kamendaka karnyi, lateral view
- Rhotana bicolor, venation at ba 17.
- Rhotana latipennis, venation at 18.
  - Pamendanga siporensis, lateral
- Pamendanga siporensis, full vic
- Pamendanga rubicunda, latera
- Pamendanga diffusa, lateral vi 22.
- Pamendanga diffusa, ventral v 23. Zoraida smedleyi, basal half of 24.
- Zoraida karnyi, basal half of 25.
- Zoraida padangensis, lateral v 26.
- Pseudohelcita nitida, lateral vi 27.
- 28. Pseudohelcita nitida, lateral vi 29. Pseudohelcita nitida, lateral v
- 30. Zeugma elegans, lateral view
- 31. Zeugma elegans, dorsal view 32. Zeugma karnyi, lateral view of
- 33. Zeugma karnyi, dorsal view o
- 34. Zeugma karnyi, apex of genit

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nov. Figs. 30, 31.

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brown mark down middle of frons and om eye to apex of frons, lateral carinae: a broad dark mark down middle of lie over median carina, a smaller mark he mesonotum; abdomen dark brown; n with darker veins, fuscous over apical fuscous, a darker mark near apex; a cell and base of subcostal, where the eins are red or yellowish. The wings dark veins.

iale from Sipora (H. II. K. October

stinct from Z. corporaali from Medan,

ov. Figs. 32, 33, 34.

tegmen 9.2 mm.; wing 5 mm.

iding frons from vertex; vertex and in *Z. elegans*, no median frontal id frons slightly tumescent and gla-ien seven) simple median sectors and nitalia figured.

tending on to genae and middle of red, middle of vertex, frons and, to a middle of pronotum and mesonotum eral carinae and near lateral margins rker line. Front and middle femora trk lines, hind femora with only slight egmina hyaline, stramineous, slightly ells and apical Sc and R cells, a light R; veins yellow or reddish, gradate ending into cells, also the bases of M

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sectors extending into cells, a small dark mark over cross veins between R and M and M and M sector near apex, a dark round spot on basal cell; wings hyaline, slightly stramineous, veins brownish.

Female slightly larger but in color and build similar to male.

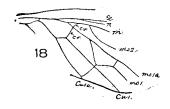
Described from one male and one female from Siberut (H. H. K. September 1924).

This is nearest to Z. javana Muir but it is quite distinct; the genitalia are quite distinct from Z. corporaali.

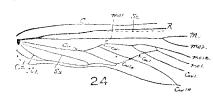
#### Explanation of Figures.

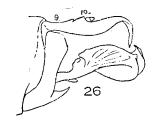
- 1. Andes siberutensis, lateral view of male genitalia.
- 2. Kirbyana javana, lateral view of male genitalia.
- 3. Mnemosyne fuscinervis, lateral view of male genitalia.
- 4. Mnemosyne suscinervis, ventral view of ovipositor.
- 5. Ostama junctissima, lateral view of anal segment, aedeagus and genital styles.
- 6. Ostama junctissima, genital styles.
- 7. Malaxa bispinata, full view of male genitalia.
- 8. Malaxa bispinata, lateral view of male genitalia.
- 9. Ugyops insularis, ventral view of genitalia.
- 10. Ugyops insularis, apex of aedeagus.
- 11. Dicranotropis insignis, full view of male genitalia.
- 12. Neocyclokara flaveola, lateral view of genitalia.
- 13. Neocyclokara flaveola, inner margin of genitalia.
- 4. Neocyclokara flaveola, apex of anal segment.
- 15. Kamendaka opacipennis, lateral view of genitalia.
- 16. Kamendaka karnyi, lateral view of genitalia.
- 17. Rhotana bicolor, venation at base of tegmen.
- 18. Rhotana latipennis, venation at base of tegmen.
- 19. Pamendanga siporensis, lateral view of female genitalia.
- 20. Pamendanga siporensis, full view of female genitalia.
- 21: Pamendanga rubicunda, lateral view of male genitalia.
- 22. Pamendanga diffusa, lateral view of male genitalia.
- 23. Pamendanga diffusa, ventral view of female pregenital plate.
- 24. Zoraida smedleyi, basal half of tegmen.
- 25. Zoraida karnyi, basal half of tegmen.
- 26. Zoraida padangensis, lateral view of male genitalia.
- 27. Pseudohelcita nitida, lateral view of male genitalia.
- 28. Pseudobelcita nitida, lateral view of male genitalia.
- 29. Pseudohelcita nitida, lateral view of aedeagus.
- 30. Zeugma elegans, lateral view of male genitalia.
- 31. Zeugma elegans, dorsal view of anal segment.
- 32. Zeugma karnyi, lateral view of genitalia.
- 33. Zeugma karnyi, dorsal view of anal segment.
- 34. Zeugma karnyi, apex of genital styles.



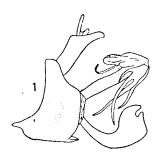


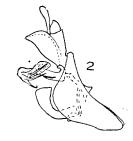


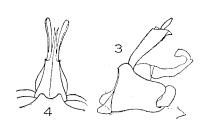




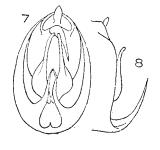
1926] Royal Asiatic Society.

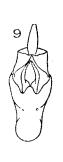


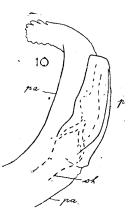


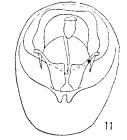




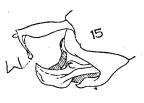




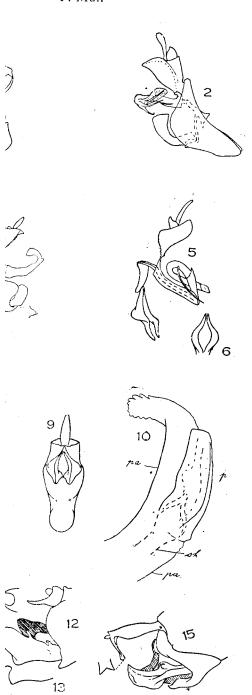




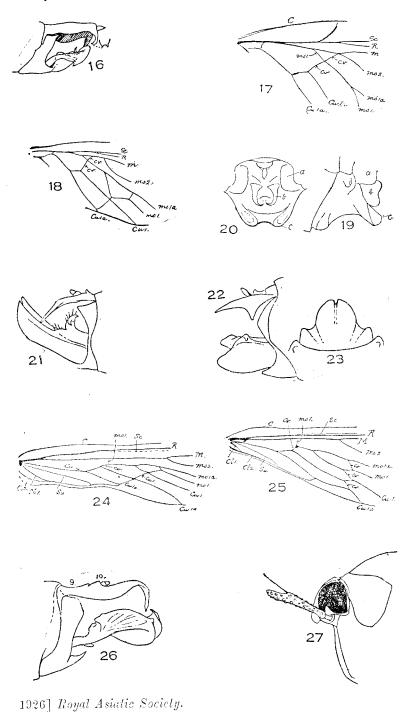


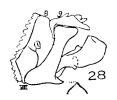


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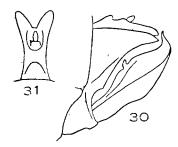


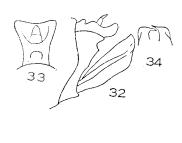
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# The founder of Malay ro Saktimuna,

By R. O. Winste

Authentic records show that of the mountains" ruled the old S (or Sri Vijaya) from at least the controlled Central Java as early over Western Java for 400 years yana Buddhism there (JRASSB. this ancient Buddhist kingdom, Minangkabau, which took Palenhad destroyed it, is commonly demonarchs of the world along with tium) and the Emperor of China, (Encyclopadie van Nederlandsch van der Toorn's Tjindoer Mato, I

In the XVIIth century "Mal wandering "Kalinga" prince, a dowith the title of Bichitram Shah, recorded to have ravaged the we and was apparently an XIth cen Palembang.

In Shellabear's edition of t Shah is dissatisfied because his fat of "Chandu-Kani," and he sets conquest but his fleet is scattered said of him. According to Dula cipales Chroniques Malayes, vol. Shah accompanied by Nila Pahl Uttama, came from heaven down Bichitram Shah was given the tit of the country and begat two so

Radin Sendari, daughter of Dema 54)—it would appear however th dundant Bichitram Shah not to le labear's text states that the three Palembang hill were Nila Pahla Uttama and that they were half-bfather being Raja Suran and their dom in the depths of the sea. N Sang Sapurba and begets Maniak aboriginal chief. His brothers Malini, the girls in whose ricealighted.