

bred *Hyles euphorbiae* from the "Front" in France, and a *Vespa norvegica* from Rotherhithe. Mr. Ashby, a long series of *Cetonia aurata* from Portland, and *Lasiocampa quercus* near v. *callunae* from the same place. Mr. W. West, the Neuropteran *Osmylus chrysops* from the New Forest. Mr. Blair described the pairing habits of the "swift" *Hepialus sylvinus*, referring especially to the folding-down of the hind wings of the females. Mr. Bunnett exhibited larvae and pupae of the Coleoptera *Cassida equestris*, *Cionus blattariae*, *Chrysochela polita*, etc. Mr. Sims, ova of *Piezodorus lituratus* (Hemipt.) on furze. Mr. Edwards, exotic *Pieridae*, including *Callosune zoë*, *C. ialone*, *Pieris charina*, etc. Mr. Sichel read a paper, "Species in the Genus *Cerostoma*."

August 22nd, 1918.—The President in the Chair.

The death from wounds of a member, Mr. C. P. Emmett, F.E.S., was announced.

Mr. Court, of Market Rasen, was elected a member.

Mr. Turner exhibited a copy of "Exotic Moths," Jardine's Library, 1840, and referred to the portrait and memoir of the great French naturalist Latreille contained in it. Mr. Edwards, *Papilio lama* from Tibet, and v. *plutonius* of *P. alcinous* from Tibet. Mr. Ashdown, larvae of *Notodonta dromedarius*. Mr. Barnett, undersides of *Agriades coridon*, (1) with all discal markings obsolete, (2) with markings much emphasised and dark, from Royston, and a pale *Anaitis plagiata* from Colley Hill. Mr. Neave, a living *Trichinura crataegi* and three aberrations of *Arctia caja*, (1) and (2) with discal markings on hind wings mainly obsolete, (3) a yellow form. Mr. Holden, three aberrations of *Arctia caja*, (1) a salmon-pink form, (2) with discal markings on hind wings obsolete, (3) a rich yellow form, and a *Mimas tiliae* with costal blotches only. Mr. Carr, several series of *Abraxas sylvata (ulmata)* from Chalfont, Wye, and Delamere. Mr. Bunnett, a very pale *Miltochrista miniata* from Crowborough. —H. J. TURNER, Hon. Editor of Proceedings.

NOTES ON THE DERBIDAE IN THE BRITISH MUSEUM
COLLECTION.—II. DERBINAE.

BY FREDERICK MUIR, F.E.S.

The four sections, *Derbini*, *Rhotanini*, *Cenchreini*, and *Otiocerini*, have the anal area of the wing large and the cubital and anal veins normally developed; except in the genus *Symidia*, the wings are more than half the length of the tegmina, and the tegmina are not proportionally long and narrow. They thus constitute a group in contrast to the *Zoraidinae*. Elsewhere I have treated them as four subfamilies, but, after examining the material in the British Museum collection, which includes many forms previously unknown to me, it will be better, in my opinion, to consider them as four sections under one subfamily. The *Cenchreini* and *Otiocerini* are two well-defined groups,

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but the *Derbini* and *Rhotanini* are more difficult to define and have only three or four genera each. *Zeugma* Westw., which I place in the *Derbini*, has little or no affinity with the other two genera; the genera under *Rhotanini* are all nearly related.

Symidia is of interest, as its tegmina have the first median sector with three branches (the neuration approaching the cubital system of arrangement), thus leading to the *Derbini*; the wings are slightly less than half the length of the tegmina, and the anal area is not greatly developed (although there are two cubital veins), *Symidia* in this respect leading to the *Zoraidinae*.

It is interesting to note that none of the *Zoraidinae* have been reported from the American continent or the West Indies, and the two genera, *Derbe* Fabr. and *Mysidia* Westw., are confined to America south of the United States and to the West Indies, with the exception of one species in Australia.

The four sections can be separated by the following characters:—

- a¹. The cubital veins ending in the hind margin of the tegmen, the claval cell closed, or if narrowly open then the claval vein reaching no further than the last cubital vein.
- b¹. Cubitus with four or more veins reaching the hind margin.
 -DERBINI.
- b². Cubitus with less than four veins reaching the hind margin.
 - c¹. Cubitus simple or furcate, reaching the hind margin direct, not running into the first median sectorCENCHREINI.
 - c². Cubitus connected with the first median sector, forming an angular or diamond-shaped cell; sometimes with a cross-vein near the base of the first median sector forming a triangular cell; tegmina broad.....RHOTANINI.
- a². Clavus open, the cubital veins not reaching the hind margin but meeting the extended claval vein which extends to the last apical cell.
 -OTIOCERINI.

DERBINI.

- a¹. Six or more median sectors; shoulder keels very large.....ZEUGMA.
- a². Five or less median sectors; shoulder keels absent or very small.
 - b¹. Cubitus with four veins reaching the hind margin, the second vein bifurcate; the female genital styles generally small or very small.
 -MYSIDIA.
 - b². Cubitus with six or more veins reaching the hind margin, the second vein not furcate; female genital styles well developed ..DERBE.

DERBE Fabr.

Derbe westwoodi Fowl.

Under this name there are six specimens, three of which I consider typical, one is *D. longitudinalis* Dist., and the other two are here described as *D. fowleri* and *D. championi*.

D. championi, sp. n.

Derbe westwoodi Fowl. loc. cit. t. 8, figs. 16, 16 a (1900) (part).

♀. Yellow tinged with reddish-brown. Tegmina and wings hyaline slightly tinged with yellow, veins brown; a narrow fuscous mark down the middle of each cell, except the costal, subcostal, and some of the apical cells of the tegmina.

Genital styles small, short; anal segment small, sunk into a quadrate emargination of the pregenital tergite, the ventral edge of anal segment drawn out into a small lip, two small, thin, flat processes arise from beneath the lip and project slightly beyond the edge; pregenital plate large, in profile the basal portion convex, the median third of the hind margin produced into a subquadrate flat plate, the sides of which are short and slightly converging, the apex broadly angular.

Length 4.5 mm.; tegmen 11 mm.

Hab. PANAMA, Bugaba (*G. C. Champion*).

One specimen.

D. fowleri, sp. n.

♀. Similar in coloration to *D. westwoodi* Fowl. Light brown, darker over the mesonotum and abdomen, anterior tarsi and apex of tibiae dark brown. Tegmina and wings yellowish with brown veins, fuscous at the middle of subcostal, radial, and median basal cells, a small brown mark at apex of clavus and another on the hind margin and over the cubital cross-vein, slightly fuscous at the apex of the wings.

Genital styles large, long; anal segment large, the ventral edge projecting as a wide quadrate lip, which is produced into two long narrow processes reaching to near the apex of the genital styles; pregenital plate large, the hind margin produced into a large plate much longer than wide, the base wider than the apex, the apex truncate, and the sides convex in the middle.

Length 7 mm.; tegmen 14 mm.

Hab. GUATEMALA, San Isidro, Pacific slope (*G. C. Champion*).

The locality was not quoted by Fowler (*l. c.*).

D. nervosa Burm.

Under this name there is one female specimen, which is a *Mysidia*.

MYSIDIA Westw.

Mysidia elatior Fowl. (*op. cit.* p. 73, t. 8, fig. 22) is a *Heronax*.

Mysidia (?) *spreti* Fowl. (*op. cit.* p. 74) is a *Basileocephalus*.

RHOTANINI.

- a¹. A triangular cell present at the base of the first median sector.
 b¹. Face not linear, carinae of face not contiguous DECORA.
 b². Face linear, carinae of face contiguous to near apex.
 c¹. Shoulder keels present LEVU.
 c². Shoulder keels absent or very small RHOTANA.
 a². No triangular cell at the base of the first median sector. SUMANGALA.

DECORA Burm.

The following three species, placed under *Rhotana*, I consider to belong to this genus:—*R. ramentosa* Dist., *R. septemmaculata* Dist., *R. quadrimaculata* Dist.

LEVU Kirk. = ALARA Dist.

The following three species I consider belong to this genus:—*Alara dux* Dist., *Rhotana iridipennis* Mel., *Rhotana opalina* Dist.

SUMANGALA Dist. = MECYNORHYNCHUS Muir.

GENESTIA Stål.

I have not seen this genus; it appears to come near *Rhotana* Walk.

CENCHREINI.

- a¹. Subantennal process absent or very small.
 b¹. Shoulder keels absent or very small.
 c¹. In profile the face and vertex meeting at an angle.
 d¹. Subcostal cell long.
 e¹. In profile vertex and face forming an acute angle, head considerably produced PERSIS.
 e². In profile vertex and face forming an obtuse angle, head not produced GONEOKARA.
 d². Subcostal cell short VEKUNTA.
 c². In profile vertex and face forming a curve, not meeting at an angle.
 f¹. Antennae large, reaching beyond the apex of head, flattened.
 g¹. Face linear, carinae contiguous to near apex of face; vertex small, triangular PATARA.
 g². Face narrow but not linear, carinae not contiguous.
 AQUIRRA.
 f². Antennae small, not reaching to apex of head.
 DAWNARIA.
 b². Shoulder keels well developed.
 h¹. Face with a median carina SYNTAMES.

- h*². Face without a median carina.
- i*¹. Subcostal cell short; face not linear, carinae not touching, width of vertex at base subequal to length CENCHREA.
- i*². Subcostal cell long.
- k*¹. Face linear, carinae contiguous to near apex. SYMIDIA.
- k*². Face not linear, carinae not contiguous.
- l*¹. Length of vertex subequal to width at base. PHACIOCEPHALUS.
- l*². Vertex narrow, much longer than wide. BASILEOCEPHALUS.
- a*². Subantennal process well developed.
- m*¹. Shoulder keels absent or very small.*
- n*¹. Subcostal cell long.
- o*¹. Face without a median carina.
- p*¹. Vertex longer than broad, subantennal process forming a semicircular plate below the antenna . . . PHENICE.
- p*². Vertex broader than long, subantennal process forming a keel below the antenna HERPIS.
- o*². Face with a distinct median carina EOCENCHREA.
- n*². Subcostal cell short.
- q*¹. In profile face meeting vertex at an angle, subantennal process forming a keel below the antenna.
- r*¹. Antennae small LAMENIA.
- r*². Antennae large NEOLAMENIA.
- q*². In profile face and vertex forming a curve, subantennal process semicircular; antennae ovate, not reaching to apex of head. CYCLOMETOPUM.
- m*². Shoulder keels very well developed.
- s*¹. Face very narrow, carinae touching to near apex. FORDICIDIA.
- s*². Face broader, lateral carinae not touching.
- t*¹. Subcostal cell starting slightly before middle of tegmina; tegmen long, apex pointed, middle considerably wider than base across middle of clavus NEOCYCLOKARA.
- t*². Subcostal cell longer, starting much nearer to base, apex truncately rounded, sides of tegmina subparallel, base across middle of clavus not much less than across middle. HERPIS.
- V EKUNTA Dist. = PARADININA Dist.
- V. *tenella* (Melichar) = *P. typica* Dist.
- PATARA Westw. = AQUAELICUM Dist.
- DAWNARIA Dist. = CYCLOKARA Muir.

* In *Herpis* the shoulder keel is sometimes comparatively large and the species might run down to *Neocyclokara*, but the tegmina are distinct.

PATARA Westw.

P. pattersoni, sp. n.

♂. Antennae large, broad, flat, compressed together at the middle. Face, antennae, pro- and mesonota, and abdominal tergites brown; clypeus, legs, and abdominal sternites light yellow. Tegmina reddish-fuscous, darkest over the base of costal cell and apical third of tegmina, veins concolorous with membrane, whitish at the apex of claval suture and at the apices of all the apical veins; wings fuscous with dark veins.

Ventral and lateral margins of pygofer entire; anal segment small, anus at the apex, each apical corner produced into a small point; genital styles large, narrow at base, ventral edge convex, dorsal edge concave, apex large, round, produced considerably on dorsal edge.

Length 2 mm.; tegmen 3.5 mm.

Hab. GOLD COAST, Aburi (*W. H. Patterson*, 1912-13).

Described from one male specimen. This is the first species of the genus described from Africa, but there is another, from Nyasaland, (represented by a single female specimen) in the collection.

SYNTAMES Fowl.

S. chiriquensis Fowl. = *S. nigrolineatus* Muir.

Syntames delicatus, var. *chiriquensis* Fowl. *op. cit.* p. 139, t. 13, fig. 22 (1905).

This insect is specifically distinct from *S. delicatus* Fowl. (fig. 21), under which it was placed as a variety.

♂. Medio-ventral process of the pygofer small, angular, lateral margins entire, slightly arcuate; anal segment long, narrow, tubular to anus near apex, apex beyond the anus broadened, apex roundly emarginate, each lateral corner forming a curved broad spine; genital styles large, reaching apex of anal segment, ventral edge straight with a narrow, long, flat process about the middle, dorsal edge produced subangulately to middle, apex of projection extended into a flat process longer than broad and turned inward, slightly basad of this the edge is produced into a more angular process, apex acute, curved inward.

The male here described is from Bartica, British Guiana. *S. delicatus* Fowl. has the genital styles broader; the dorsal edge is produced near base, then straight and entire.

S. sufflavus Muir.

The male genital armature of this species differs from that of *S. chiriquensis* in having the genital styles sublanceolate and curved, the ventral edge is slightly produced and turned inward, with a spine-like projection near the base, the dorsal edge is roundly produced in the middle, with a small projection and an emargination near the base, apex pointed and turned slightly inward.

SYMIDIA, gen. n.

Head narrower than thorax; vertex triangular, small, face linear to near apex, formed by the two contiguous carinae which diverge slightly near apex; no subantennal processes; antennae small, globose; clypeus longer than face, feebly tricarinate, rostrum reaching to near the end of the abdomen. Pronotum widely angularly emarginate on hind margin, shoulder keels large, lateral margin turned up and, together with the shoulder keels, forming an antennal chamber; mesonotum tricarinate. Tegmen with the subcostal cell long, cubitus bifurcate, both veins entering the hind margin, clavus narrowly open, media with three sectors, the first sector with three branches and appearing as if part of the cubitus. Wings slightly less than half the length of the tegmina (1-2.2), two distinct cubital veins, anal area small, without veins, the margin striate, forming a "stridulating" area.

This genus approaches the *Zoraidinae* in the structure of the wing, but it cannot be placed among them, as the cubital veins are distinct and the cubital and anal areas are not sufficiently reduced. The tegmen is not unlike that of *Mysidia*.

Type, *S. flava* Muir.

S. flava, sp. n.

♂. Light yellow, a small spot of brown in front of the eyes at the junction of the vertex and face. Tegmina white, hyaline, veins yellowish, with some irregular light brown markings, six small marks in costal cell, an irregular mark in the middle of the cubital area, an irregular broken band from the apex of subcostal cell to apex of cubital veins, slight fuscous marks over the apical portions of the median sectors; wings hyaline, a small fuscous spot in the middle, an irregular transverse mark near apex, and a small spot at apex. Both tegmina and wings opaque with white, powdery, waxy secretion.

Medio-ventral edge of pygofer forming a small triangular projection; anal segment large, narrow at base, widened to the middle and then slightly narrowed to apex, which is angularly emarginate, anus at base; genital styles large, narrow at base, widest in middle, ventral edge entire, gradually produced to middle, then more abruptly reduced, dorsal edge with a semicircular projection near the apex, apex bluntly pointed and slightly turned inward, a keel runs from near the base to the apex near the dorsal margin.

Length 2 mm.; tegmen 4.1 mm.

♀. Genital styles exceedingly small; anal segment very small, sunk into the pregenital segment, ventral edge slightly angularly produced; pregenital plate large, the median third of the posterior margin produced into a sublanceolate process with a wide base, the production concave along the middle, the concavity extending to near the base of the pregenital plate.

Length 2 mm.; tegmen 4.25 mm.

Hab. BRITISH GUIANA, Demerara River.

Described from five males and five females.

PHENICE Westwood (1842), Trans. Linn. Soc. Lond. xix. pp. 10, 11.

Type, *Phenice fasciolata* (Boh.), pl. 2, figs. 3, 3 a-c.

See my remarks on the type of this genus, *ante* p. 207.

I have not seen the type of *Derbe fasciolata* Boh., and the specimens standing under that name in the British Museum do not agree in certain points with Westwood's figures, but I shall consider them as typical until I can examine the type or someone redescribes it, if the insect is still in existence. These specimens have the clavus narrowly open; the cubitus with four veins, but only three reach the hind margin; media with four sectors; subcostal cell long, commencing about one-third from the base.

Derbe fritillaris Boh. is represented by several specimens which are congeneric with *Phenice moesta* Westw., and they belong to the genus *Proutista* Kirk., subfamily *Zoraidinae* (*cf. antea*, p. 177).

P. tessellata Westw.

The two specimens standing under this name have tegmina similar to those of *P. fasciolata* (Boh.), but as the subantennal processes are very small, they come nearer to *Dawnaria* Dist.

P. stellulata (Boh.).

The two specimens placed under this name are congeneric with *P. fasciolata* (Boh.), as represented in the collection.

P. neavei, sp. n.

♂. Structurally the same as *P. fasciolata* Boh., as represented in the British Museum collection by two female specimens, but the face is slightly narrower. The subantennal plate is large, about as long as broad; shoulder keels very small.

Head, prothorax, and legs yellow, mesonotum light brown, carinae lighter, abdomen darker brown, anal segment and genital styles yellowish. Tegmina hyaline; subcosta, radius, and media yellow; median sectors, cubitus, and claval veins brown, light fuscous mottling over basal third, more markedly so in clavus; light fuscous over most of the rest of the tegmina, with lighter patches between the median sectors and over radial cell; four small dark marks in the middle of costal cell and a larger one at apex, darker in the narrow subcostal cell and in the subcostal and median apical cells. Wings light fuscous with dark veins.

Anal segment of medium length, broad, narrowest at base, apex rounded and subsinuous, broadest slightly beyond middle, lateral margins sloping downward and rounded in outline, anus in the apical third; genital styles large, longer than anal segment, ventral edge entire, convexly rounded, dorsal edge

produced into a narrow edge on the basal half, with a small curved spine at the distal corner of the production, apical dorsal edge with a slight notch near apex, apex broadly rounded.

Length 3.7 mm.; tegmen 6.8 mm.

♀. Similar to ♂. Length of anal segment subequal to width, bluntly conical, broadest at the base, ninth tergite produced into a small stout spine at the sides, pregenital plate broader than long, posterior edge straight with a small triangular production in the middle, a longitudinal groove from the posterior edge to near the base.

Length 4 mm.; tegmen 7 mm.

Hab. NYASALAND, Mlanje (*S. A. Neave*).

Described from one male and one female specimen in the B.M. coll. In *P. fasciolata* the anal segment of the female is considerably longer than wide, subconical, evenly and slightly enlarged from base to a third from the apex; the ninth tergite not produced in a spine; the pregenital plate longer than broad, posterior median area swollen.

HERPIS Stål.

H. aburiensis, sp. n.

Shape of the tegmina and the neuration as in typical *Herpis*, but the shoulder keels are more pronounced than is usual in this genus. Vertex broader than long; subantennal process longer than broad.

Ochraceous. Tegmina and veins ochraceous; wings hyaline, veins dark. Both the tegmina and wings covered with white waxy secretion.

Ventral and lateral edges of pygofer straight, entire; anal segment long, narrow, subcylindrical, apex produced into a fine point and curved ventrad; genital styles large, broad, reaching beyond the apex of anal segment, base narrow, apex broadly rounded and produced into a small spine on inner margin, ventral edge slightly convex, entire, the median third of dorsal edge produced into a large quadrate plate about as long as broad.

Length 2.2 mm.; tegmen 3.7 mm.

Hab. GOLD COAST, Aburi (*W. H. Patterson*).

This is the first of this genus to be described from Africa; there is a second species from the same district represented by a damaged female.

FESCENNIA Stål.

I have not seen the type of this genus, and the two species, *F. bimaculata* Dist. and *F. aurea* Dist., standing under the name *Fescennia*, I do not think belong to it. They are very near *Neocyclo-kara* Muir.

OTIOCERINI.

a¹. Media not arising from radius or arising before the forking of the subcosta from the radius.

b¹. First median sector arising before the apical third of the tegmen.*

c¹. First joint of antenna short, length subequal to the width or shorter.

d¹. Forking of subcosta and radius at or before the middle of the tegmen (subcostal cell long).

e¹. Subantennal process absent or very small; shoulder keels absent or very small.

f¹. In profile vertex and face forming a curve, or subconical; face not wider at base than at apex.

g¹. In profile head not produced much in front of eyes, margin subparallel to eye . . . PYRRHONEURA.

g². In profile head considerably produced in front of eye.

h¹. Antennae not reaching to the apex of head.

. PHANTASMATOCERA (in part.).

h². Antennae reaching to the apex of head.

i¹. Face and vertex in profile rounded.

. KURANDA.

i². Face and vertex subconical or narrowly rounded.

. ANOTIA.

f². In profile vertex and face forming a distinct angle, or the face wider at the base than at the middle.

k¹. Face at base as wide as, or wider than, at the apex.

l¹. In profile head widely produced before the eyes, vertex slightly concave . . . PHANTASMATOCERA, (in part.).

l². In profile head considerably and narrowly produced in front of eyes and curved upward.

. SWEZEYIA.

k². Face narrower at base than at apex.

m¹. In profile vertex sinuous . . . KAMPULOKARA.

m². In profile vertex not sinuous.

1. In profile vertex and face meeting at an angle of about 45° NICERTOIDES.

2. In profile vertex and face meeting at an angle of 45° to 80°; face not strongly curved.

. KAMENDAKA.

3. In profile vertex and face meeting at an angle of about 90°; face strongly curved, especially on apical half EOSACCHARISSA.

e². Subantennal process well developed.

n¹. Shoulder keels absent or very small.

o¹. Vertex and face in profile round; vertex not ascending.

. NESOCORA.

* *Banksiella* has the first median sector in the apical third, but is included in this group.

- o². Head in profile with vertex ascending.
- p¹. In profile vertex ascending and curved backward.
..... NESONIPHAS.
- p². In profile vertex ascending, but not curved backward
..... NESONEURA.
- n². Shoulder keels well developed.
- q¹. Subantennal process spatulate, attached to the gena by a slender stalk.
- r¹. Face considerably produced in front of eyes; antennae in some species small with large "sense organs," in others with the second joint produced and bearing large "scales" and appearing as if irregularly pectinate, oftentimes differing in the sexes
..... KAHHA.
- r². Face not considerably produced in front of eyes; antennae larger with smaller "sense organs," never with "scales"
..... NESOKAHA.
- q². Subantennal process not spatulate, attached to the gena by a broad base.
- s¹. Vertex truncate at apex; lateral carinae of face not contiguous
..... LYRICEN.
- s². Vertex acutely angular, carinae meeting at apex and continued on to face, face linear, carinae contiguous
..... PARALYRICEN.
- d². Forking of subcosta and radius beyond the middle of the tegmen (subcostal cell short).
- t¹. In profile vertex and face meeting at an angle.
- u¹. Costal margin entire.
1. In profile vertex and face meeting at an angle of about 45°
..... NICERTOIDES.
2. In profile vertex and face meeting at an angle of 45° to 80°; face not strongly curved.
..... KAMENDAHA.
3. In profile vertex and face meeting at an angle of about 90°; face strongly curved, especially on apical half.
..... EOSACCHARISSA.
- u². Costal margin not entire, more or less sinuous and broken by an angular projection; a distinct precostal area in basal third of tegmen
..... BANKSIELLA.
- t². In profile vertex and face forming a curve, not angular.
..... MAKULA.
- c². First joint of antennae long, length more than twice the width.
- v¹. No subantennal process.
- w¹. In profile head round, not greatly produced in front of eyes.
..... DENDROKARA.
- w². In profile vertex and head meeting at an angle or narrowly rounded, considerably produced in front of eyes.
..... OTIOCERUS.
- v². Subantennal process present
..... NEODENDROKARA.

- b². Median sectors confined to the apical third of tegmen.
- x¹. Length of head twice the length of the pro- and mesonota together.
..... VIVAHA.
- x². Length of head less than twice the length of pro- and mesonota together.
- y¹. Subcostal cell short.
- z¹. Antennae large, flat
..... LEPTALFOCERA.
- z². Antennae cylindrical
..... ROBIGUS.
- y². Subcostal cell long; antennae cylindrical, in some species simple, in others with a knob at base or horseshoe-shape.
- a¹. In profile vertex and face forming an angle, or narrowly rounded, produced in front of the eye more than the width of an eye
..... INTERAMMA.
- a². In profile vertex and face forming a curve, not produced in front of eye so much as the width of an eye.
- b¹. Head as broad or nearly as broad as the thorax, vertex quadrate, apex truncate, base broader than apex, keels of vertex and face very large, not contiguous on face or only so along the edges.
..... MEGATROPIS.
- b². Head narrower than thorax, vertex triangular, face narrow, keels of vertex and face large, contiguous on face
..... NICERTA.
- c². Media not separating from radius until after the forking of subcosta and radius.
- c¹. Subantennal process absent or very small.
- d¹. Antenna with first joint much longer than wide.
..... PHRA.
- d². Length of the first joint of antennae subequal to width.
- e¹. Antennae longer than face
..... PLATOCERA.
- e². Antennae not longer than face
..... HERONAX.
- c². Subantennal process present
..... MYSIDIOIDES.

PYRRHONEURA Kirk.

Kirkaldy treats *Pyrrhoneura* as synonymous with *Makula* Dist., but the latter has a short subcostal cell and the head somewhat differently shaped. The type of *Pyrrhoneura* has a very small shoulder keel. *Otiocerus rubescens* Fowl. (B. C.-A., Rhynch. Homopt. i, p. 76, t. 9, fig. 2) I consider comes into this genus.

P. mlanjensis, sp. n.

♂. Face narrower than in the genotype, the carinae touching or closely approximate until near apex. Head, legs, and ventral aspect of thorax yellow, abdomen and dorsum of thorax reddish brown, slightly lighter over the median portions of pro- and mesonota, genital styles and thoracic pleura lighter and redder. Tegmina fuscous, a white mark in apical half of costal cell, a smaller one in subcostal apical cells, another at the apex of second and third median sectors, a larger one from hind margin at the end of the clavus to the forking

of the cubital veins, and a very small spot in the middle of the basal cubital cell, veins reddish brown, the apical veins bright red; wings fuscous with dark veins.

Ventral edge of pygofer straight, entire, lateral edges angularly produced in the middle; anal segment long, narrow, in dorsal vein subparallel-sided, anus at apex, basad of anus dorsal surface sloping from the middle, distad of anus slightly narrowed, apex truncate; genital styles narrow, slightly longer than anal segment, ventral edge entire, slightly sinuous, dorsal edge widely and shallowly emarginate in middle with the margin turned inward, a minute curved spine on the apical margin of the emargination.

Length 2.4 mm.; tegmen 4.8 mm.

♀. Similar to male. Anal segment minute; pregenital plate large, hind margin widely angularly produced from sides to middle, apex of production rounded, sides slightly sinuous; medio-basal portion constricted off from, and turned ventral at an angle to, the remainder of the plate.

Length 2.6 mm.; tegmen 4.8 mm.

Hab. NYASALAND, Mount Mlanje (*S. A. Neave*).

Described from one male and four females.

KAMENDAKA Distant.

The five genera *Kamendaka* Dist., *Eosaccharissa* Kirk., *Tapoosa* Dist., *Chaprina* Dist., and *Nicertoides* Matsumura, are very closely related, and depend, as far as I can see, upon the shape of the head for their separation. As there is a specific difference in the shape of the head, the genera grade into one another. At one extremity we have the vertex and face in profile forming an angle of about 90°, and the face strongly curved, especially so on the apical portion (*Eosaccharissa*); at the other extremity we have the face and vertex in profile forming an angle of about 45°, and the face not so strongly curved (*Nicertoides*); *Kamendaka*, *Chaprina*, and *Tapoosa* approach *Eosaccharissa*. The slight differences in the shape of the vertex are equally unreliable for generic separation. I therefore consider it best to regard them all as one genus, which will have to take the name *Kamendaka* Dist.; the extreme forms on one side can be regarded as a subgenus, *Eosaccharissa*, and the extreme forms on the other side as another subgenus, *Nicertoides*, while the intermediate forms would form a third, *Kamendaka*. Both *Chaprina* and *Tapoosa* will then sink under *Eosaccharissa*.

One specimen standing under the name *Brixia nivea* Walk. is a *Kamendaka*.

BANKSIELLA Muir.

Originally, this genus was placed by me in the *Nicerta* group, as the median sectors are confined to the apical third of the tegmina; but

it comes near to the *Kamendaka* group. *Tapoosa elegantula* Dist. belongs to it and has the first median sector well before the apical third.

MAKULA Distant.

Brixia testacea Walk. is a *Phaciocephalus*, and *B. pictipennis* Walk. is a *Basileocephalus*; they have both been wrongly placed under *Makula*.

INTERAMMA Walker.

I. ascendens Walk. must be the type of this genus, as it is upon that species the generic description was based. *I. angusta* Walk. differs from the type, and *I. subvaria* Walk. was placed by him in a different section. *Nicerta* and *Megatropis* are closely allied, and the species placed under them require further study.

ROBIGUS Distant.

This genus is stated to have the costal margin "distinctly broken by an irregular, raised, longitudinal, cellular interspace," and is figured with the costal margin broken at the apex of the subcostal cell. The specimen upon which *Robigus* is founded has the tegmina bent slightly at this point, the left more so than the right, but there is no such raised cellular interspace as described. Both the wings and the tegmina of the specimens are badly crumpled, as if they were not fully developed.

R. pattersoni, sp. n.

Tegmina typical of the genus, the subcostal cell short. Head wider and in profile more produced than in the type species, the antennae reaching slightly beyond the apex of the head.

Light yellow; genae before eyes, face, antennae, and base of clypeus bright red. Tegmina yellow with a broken, irregular, longitudinal, bright red mark down the middle, a broken fork proceeds from the first median sector to the apex of the subcostal cell with a small spot between the forks, a small spot on the hind margin slightly beyond the apex of the clavus, veins concolorous as in membrane; wings white with white veins, covered with a fine, powdery, waxy secretion.

Ventral edge of pygofer straight, entire, lateral edges entire, slightly curved; anal segment large, convex on ventral aspect, concave on dorsal aspect, slightly narrowed at base, wide at apex, which is shallowly, roundly emarginate, each apical corner is produced into a stout spine curved ventrad; genital styles large, wide, ventral edge curved, entire, dorsal edge straighter, with a small, flat, curved process from the middle, apex pointed and turned dorsad.

Length 4 mm.; tegmen 6 mm.

Hab. GOLD COAST, Aburi (*W. H. Patterson*).

Described from one male specimen. There are also in the Museum two similarly coloured females, with the head in profile distinctly helmet-shaped—one from Durban, Natal (*F. Leigh*), and the other from Mount Mlanje, Nyasaland (*S. A. Neave*). They probably represent another species, but I refrain from naming them in the absence of a male.

PHRA Distant.

The type of this genus, *P. amplificata* Dist., is represented in the collection by two females in damaged condition, and neither of them agrees with the generic description or the figures. The description says that the antennae are "short, robust," and are so figured, but the specimens have the first joint long and the second joint complex, somewhat as in *Otiocerus*. The figures of the head show a very large subantennal plate, but the specimen possesses none. I shall look upon the insect marked type as the correct type, and ignore the description and the figures of the head. The specific description founded upon colour agrees with the dorsal view of the insect as figured and with the type. The second joint of the antennae is composed of two parts: a short thick portion on which the arista is situated and a ribbon-like appendage.

P. atromaculata Dist.

This species is represented by one male specimen which is congeneric with *P. amplificata* Dist., but the second joint of the antennae consists of three parts: a small short process on which the arista is situated and two more or less ribbon-like appendages, one much longer than the other.

P. pictipennis Dist.

This is represented by one female specimen, which has well-developed shoulder keels and subantennal plates, and is a *Mysidioides* Mats. (= *Neocyclometopum* Muir).

ARCHA Distant.

This genus differs slightly in the shape of the head from *Heronax* Kirk., but otherwise is the same, and I consider them to be synonymous. *Archa* has the apical joint of the labium longer than usual in the *Derbidae*, nevertheless, in my opinion, it cannot be excluded from that family.

VINATA Distant.

This genus should be placed in the *Cixiidae*. I have one species from the Philippines in which the males have the large antennae characteristic of the genus and the females these organs much smaller and almost-normal.

The genera *Kermesia* Dist., *Alara* Dist., *Inxwala* Dist., *Suva* Kirk., and *Nisi* Melichar, I reject from the *Derbidae*. They have the median ocelli and the glandular surface on the female pygofer common to many *Cixiidae*.

I have not seen authentic specimens of the following genera:—*Deribia*, *Persis*, *Fescennia*, *Nebrissa*, *Flaccia*, *Labicerus*.

NOTE.

The following description was omitted under *Proutista* in Part I, ante p. 177:—

P. wilemani, sp. n.

Typical of genus, the second joint of rostrum slightly widened and flattened. Ochraceous, face and keels of thorax lighter. Tegmina hyaline, slightly ochraceous over basal third, darker ochraceous brown or fuscous over subcostal and radial cells, reaching radial cross-vein and extending in apical median cell and over the base of each median sector, a large mark at the apex of each vein along the hind margin and a fuscous mark on each side of each gradate cross-vein of median sectors and cubitals but not touching the cross-veins, five pairs of small dark marks in apical portion of costal cell, veins ochraceous; wings lightly fuscous with darker veins.

Anal segment long, narrow, anus about one-third from base, basad of anus there is a small conical process, distad of anus the dorsal side excavate, apex pointed and turned slightly ventral, at the point where the apex turns ventrad each side is produced into a small point, making the apex three-pronged; genital styles long, narrow and curved, widest on basal third, the apex of the right style is truncate or slightly excavate with each corner produced into a small projection, the left style with apex pointed.

Length 3 mm.; tegmen 6 mm.

Hab. FORMOSA, Anping (*A. R. Wileman*).

Described from one male specimen in the B.M. coll. London.

July 1918.