

Trichoniscus pygmæus have not yet been taken in North Devon; the latter probably occurs, but has been overlooked.

Of the seventeen species I have collected in North Devon, the following did not occur to me on Lundy:—*Haplothalmus danicus*, B.-L. (near Barnstaple); *Porcellio pictus*, Brandt (only once); *P. lævis*, Latr. (only once in the north, but very frequently in a garden at Topsham in South Devon); *P. dilatatus*, Brandt; *Armadillidium album*, Dollfus (River Taw), *A. pulchellum*, *A. nasatum*; and *Metoponorthus pruinosus*, Brandt.

I have never seen the butterscotch-coloured form of *O. asellus* in North Devon, and it is also interesting to note that, as regards *Philoscia couchii*, the typical grey form occurs at Lundy, whereas on the North Devon coast I have only observed a light variety, marbled with brown, something like *T. pusillus*. A more extended study of the land Isopoda of both localities is necessary before an opinion can be expressed on the relations of the forms occurring on the mainland of North Devon and those on the island.

XXXIX.—*Rhynchotal Notes*.—XLIX. By W. L. DISTANT.

HOMOPTERA.

Fam. Fulgoridæ.

Subfam. RICANIINÆ.

The study of this subfamily has been very considerably advanced by the publication in 1898 of Dr. Melichar's "Monographie der Ricaniiden," which was published in the *Annal. k.-k. nat. Hofmus. Bd. xiii.*, and is in the following pages referred to as "Mon. Ricaniid." Edmund Schmidt (*Stett. ent. Zeit.* 1905) has also, in his 'Die Ricaniiden des Stettiner Museums,' described a number of new species. Fowler, in the 'Biol. Centr.-Amer.,' has dealt with those of Central America; and the splendid collection made by Wallace in the Malayan Archipelago was described by Walker some forty years ago, while some generic revision of these species is attempted in this paper. The writer has had an opportunity of working out a considerable number of the species found in British India (*Faun. Brit. Ind., Rynch. iii.* 1906). We know little of the Ricaniinæ of Australia, and

much may be expected from that large region of diverse environments, while the Ethiopian record will certainly be much increased.

Genus POHAZIA.

Pochazia, Amy. & Serv. Hist. Hém. p. 528 (1843).

Type, *P. fasciata*, Fabr.

Pochazia gradiens.

Pochazia gradiens, Walk. Journ. Linn. Soc. Lond., Zool. i. p. 91 (1857);
Melich. Mon. Ricaniid. p. 218 (1898).

Ricania gradiens, Atkins. Journ. Asiat. Soc. Beng. iv. p. 60 (1886).

Ricania (Pochazia) flavocostata, Dist. Tr. Ent. Soc. Lond. 1892, p. 283.

Pochazia flavocostata, Melich. Mon. Ricaniid. p. 211, Taf. ix. fig. 9
(1898).

Hab. Malay Peninsula; Sumatra; Borneo.

Pochazia subatomaria.

Ricania subatomaria, Walk. Journ. Linn. Soc., Lond. Zool. x. p. 143
(1868); Melich. Mon. Ricaniid. p. 344 (1898).

Hab. Morty Island.

Pochazia emarginatus.

Flatoides emarginatus, Walk. Journ. Linn. Soc., Zool. i. p. 89 (1857).

Pochazia marginata, Melich. (nec Walk.), Mon. Ricaniid. p. 217, t. xiii.
fig. 3 (1898); Schmidt, Stett. ent. Zeit. 1905, p. 172.

Hab. Singapore; Java; Sumatra; Borneo.

Dr. Melichar has fallen into confusion over this species. He has figured it correctly, but has given incorrect references. It was described by Walker as above, but Melichar has referred to the *Ricania emarginata*, Walk. (1868), from Sula, which belongs to the genus *Armacia* and = *A. latipennis*, Walk. He has also referred to the *Flatoides marginatus*, Walk. (1851), as a synonym of the species, and hence the older name; but *F. marginatus*, Walk., belongs to the genus *Epitemna*, and although unlocalised by its describer is undoubtedly a West-African species.

Pochazia subflava, sp. n.

Head, face, pronotum, and mesonotum piceous; lateral margins and carinations to vertex, lateral and apical margins to face, and the whole of the clypeus ochraceous; anterior and posterior margins and central carination to pronotum

and anterior lateral areas to mesonotum dull reddish ; abdomen above and body beneath and legs ochraceous ; tegmina pale bright shining yellow, the costal membrane, apical margin, claval area, a transverse irregularly angulate fascia beyond middle, and two small discal spots on basal area (the outermost largest) more or less brownish ochraceous, on costal membrane—above the transverse fascia—a yellow transverse spot ; wings pale yellow, the veins slightly darker yellow ; vertex with the lateral margins ridged, a transverse carination near base and a central longitudinal carination ; face tricarinate, the central carination straight and continuous, the lateral carinations curved and not reaching apex ; clypeus with a central longitudinal ridge ; pronotum centrally longitudinally carinate ; mesonotum tricarinate, the central carination straight, the lateral ones curved and meeting anteriorly, from near their middle a straight carinate line connects them with the anterior margin.

Long., excl. tegm., 7 mm. ; exp. tegm. 30 mm.

Hab. North Borneo ; Laluk Riv. (Brit. Mus.).

Allied to *P. crocata*, Melich., from Sumatra.

Pochazia aurulenta, sp. n.

Body pale brownish ochraceous ; legs pale ochraceous ; tegmina and wings pale saffron-yellow, the veins almost concolorous ; vertex with a central longitudinal carination ; face with three carinations, the central one straight and continuous, the lateral ones short and curved ; clypeus centrally ridged ; pro- and mesonota somewhat mutilated in type, the latter, however, distinctly tricarinate ; posterior tibiæ with four spines, the two nearer base very small, the other two prominent ; tegmina short and broad, subtriangular, costal margin arched at base, a little concavely sinuate before middle, apical angle obtusely acute, apical margin nearly straight, much longer than inner and almost as long as costal margin.

Long., excl. tegm., 9 mm. ; exp. tegm. 26 mm.

Hab. Borneo ; Brunnei (Brit. Mus.).

Allied to *P. triangularis*, Dist.

A species described by Walker, the type of which cannot be found in the British Museum.

Ricania antica, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 162 (1868).

Pochazia antica, Melich. Mon. Ricaniid. p. 217 (1898).

Hab. New Guinea.

Other types of species described by Walker as belonging to the Ricaniinæ cannot be found at present in the National Collection, but mention must be made of the above, as it is included by Melichar in the genus *Pochazia* as a valid species. Dr. Melichar, however, had not seen it and only reproduces Walker's description.

Genus RICANIA.

Ricania, Germ. Mag. Ent. iii. p. 221 (1818).

Type, *R. fenestrata*, Fabr.

Ricania stigma.

Flatoides stigma, Walk. List Hom. ii. p. 410 (1851).

Ricania subfusca, Melich. Mon. Ricaniid. p. 230 (1898).

Hab. Brit. India; Tenasserim; Nicobar Islands; Borneo; Celebes; Japan.

Ricania trimaculata.

Ricania trimaculata, Guér. Voy. Coq., Ins. p. 190 (1830); Melich. Mon. Ricaniid. p. 238, Taf. xi. fig. 19 (1898).

Ricania albosignata, Stål, Öfv. Vet.-Ak. Förh. 1865, p. 161.

Ricania atomaria, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 147 (1868); Melich. Mon. Ricaniid. p. 240 (1898).

Hab. New Guinea; Aru; Batchian; Waigiou.

Ricania caliginosa.

Ricania caliginosa, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 144 (1868); Melich. Mon. Ricaniid. p. 332 (1898).

Ricania simplex, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 144 (1868); Melich. Mon. Ricaniid. p. 342 (1898).

Hab. Aru; Waigiou.

Ricania consanguinea, sp. n.

Head and pronotum brownish ochraceous; mesonotum piceous; abdomen above piceous, the base and apex more or less ochraceous; face, clypeus, body beneath, and legs pale ochraceous; tegmina black with two oblique white fasciæ, the innermost extending from a little beneath claval suture to near the lower apex of the radial area, the outermost between the first and the apical margin, broadly inwardly notched above middle, and attenuated near costal margin, on costal membrane above innermost fascia is a white spot with

a much smaller one near its outer apex; base of clavus, part of basal cell, and extreme base of costal membrane more or less ochraceous; wings pale fuscous, the outer and inner margins darker fuscous and the basal area whitish; face obscurely centrally and sublaterally carinate; pronotum centrally longitudinally carinate; mesonotum tricarinate, the central carination straight and continuous, the lateral carinations angularly anteriorly narrowed inwardly and near their middle connected by a straight carinate line with the anterior margin.

Var.—Head and pronotum paler and more greyish; ground-colour of tegmina greyish brown, not black.

Long., excl. tegm., 7 mm.; exp. tegm. 21 to 22 mm.

Hab. Queensland (*F. P. Dodd*, Brit. Mus.).

Allied to *R. episcopus*, Walk., from China and Japan.

Ricania rubrifascia, sp. n.

rubrifascia, Walk. MS.

Vertex, face, pronotum, and mesonotum black, more or less greyishly tomentose; anterior area of pronotum dull castaneous; abdomen above black, its base pale ochraceous; legs pale brownish, the femora darker; tegmina castaneous, greyishly tomentose, with two prominent straightly transverse castaneous fasciæ which are not greyishly tomentose, the first near base, the second a little beyond middle, before apical margin a broken maculate fascia of the same colour, two oblique greyish-white spots on costal membrane, the first near middle, the second near apex, another greyish-white spot a little below middle of apical margin; wings fuscous brown, two small contiguous greyish-white spots near apex of costal margin; face with the carinations subobsolete, the central most distinct but neither quite reaching base nor apex; carinations to the mesonotum distinctly prominent; tegmina somewhat short and broad, the apical about as long as inner margin.

Long., excl. tegm., $6\frac{1}{2}$ mm.; exp. tegm. 18 mm.

Hab. Ceram (*Wallace*, Brit. Mus.).

I can find no trace of a description by Walker of this beautiful species.

Ricania protea, sp. n.

Vertex piceous brown or black; pronotum and mesonotum dull black, the carinations more or less piceous brown; abdomen above black, somewhat shining, narrowly greyish at

base; body beneath black; lateral margins of face, legs, rostrum, and a spot near base of anal segment ochraceous; legs more or less spotted or suffused with piceous; tegmina black, a costal spot a little beyond middle, a broad central angulate transverse fascia commencing beneath the costal spot, broadly extending inwardly at about one-third from posterior claval margin, and then more narrowly and straightly continued to posterior claval margin at about one-third from base, and the apical margin beneath apex greyish white; wings pale fuscous hyaline, the veins piceous; pronotum with a central longitudinal carination; mesonotum tricarinate, the central carination straight, the lateral carinations curved and meeting on anterior margin, the latter also connected with the anterior margin by a straight carination from near their middle; tegmina short and broad.

Var. *a*.—Tegmina with the costal and apical marginal pale markings present, but the large discal fascia absent.

Var. *b*.—Costal spot present or obsolete, remaining pale markings absent.

Long., excl. tegm., 6 mm.; exp. tegm. 16 to 18 mm.

Hab. Queensland (*F. P. Dodd*, Brit. Mus.).

Ricania aurora, sp. n.

Vertex and pronotum pale ochraceous; mesonotum brownish ochraceous, with a black spot on each posterior lateral margin; abdomen above, body beneath, and legs pale ochraceous; tegmina pale shining ochraceous, a paler ochraceous spot crossing costal membrane at apex of radial area, just beyond which there is a black spot and another of the same colour at apex near margin; wings hyaline, with the venation pale ochraceous; face broad, faintly tricarinate, none of the carinations reaching the posterior margin; vertex and pronotum centrally longitudinally finely carinate; mesonotum finely tricarinate, the lateral carinations curved, meeting on anterior margin and also connected with it by a straight carinate line on each side; tegmina short and broad, their apices convexly rounded.

Long., excl. tegm., 6½ to 7 mm.; exp. tegm. 21 mm.

Hab. Queensland (*F. P. Dodd*, Brit. Mus.).

A larger and more brightly coloured species than *R. confusa*, Melich.; tegmina with their apices convex.

MARLEYIA, gen. nov.

Vertex short, broad, the lateral margins distinctly, the anterior margin more finely ridged, centrally longitudinally

carinate, the eyes a little projecting beyond the margins of the pronotum; face broader than long, tricarinate; clypeus not carinate; pronotum longer than vertex, centrally longitudinally carinate; mesonotum tricarinate, the central carination straight, the lateral carinations curved and meeting on anterior margin, from near the middle of the latter a short curved carination connects them with the anterior margin; legs short, robust, posterior tibiæ with two spines on apical half; tegmina strongly waved and sinuate, the costal margin convexly rounded for about two-thirds from base and then concavely sinuate to apex, which is broadly sinuately truncate, apical margin broadly bi-sinuate, costal membrane broad and coarsely transversely veined, basal cell connected with five longitudinal veins, the first and second with a common origin at its upper apex, the third and fourth with a common origin at its lower apex, the fifth from its lower margin and subclaval.

This genus is intermediate between *Mulvia*, Stål, and *Epitemna*, Melich. The shape of the tegmina allies it to *Epitemna*, from which it is separated by the four upper longitudinal veins being emitted close to the cell and not bifurcating at some distance from it, thus resembling the venation of *Mulvia*; the species are also small as in that genus.

I have founded the name of this genus on that of my friend Mr. Bell-Marley, who has done so much to assist us in collecting Natalian Rhynchota.

Type, *M. brunnescens*, Dist.

Marleyia brunnescens, sp. n.

Body and tegmina ochraceous brown; legs paler, annulated with ochraceous brown; tegmina finely palely spotted on basal half of costal margin and on the apical margin, the spots on the latter more numerous and confluent than on the former, a larger pale spot on costal margin just before apex; wings a little paler ochraceous brown; posterior tibiæ with two strong spines on apical area.

Long., excl. tegm., $5\frac{1}{2}$ mm.; exp. tegm. 14 mm.

Hab. Natal; Durban (*Gueinzus*, Brit. Mus.).

Marleyia albomaculata, sp. n.

Vertex, pronotum, and mesonotum piceous; abdomen above black, its base stramineous; face, clypeus, sternum, and legs stramineous, the latter indistinctly annulated with fuscous;

abdomen beneath piceous, with the base stramineous; tegmina black, claval area more or less piceous brown, basal half of costal margin minutely spotted with whitish, upper half of apical margin whitish, an irregular transverse series of whitish spots crossing tegmen near middle, one large and rounded a little before and beneath apex, one semilunate near middle, and a third deeply notched above clavus, before and near these spots a number of smaller and nebulous spots of the same colour; wings with the basal halves dull greyish, the apical halves fuscous. Structural characters as in generic diagnosis.

Long., excl. tegm., 5 mm.; exp. tegm. 15 mm.

Hab. Natal; Durban (*Bell-Marley*).

Genus EPITEMNA.

Epitemna, Melich. Mon. Ricaniid. p. 247 (1898).

Type, *E. retracta*, Walk.

Epitemna marginata.

Flatoides marginatus, Walk. List Hom. ii. p. 415 (1851).

Pochazia marginata, Melich. (part.), Mon. Ricaniid. p. 217 (1898).

Epitemna pilifera, Melich. Mon. Ricaniid. p. 250 (1898).

Walker's type is without a locality, but the British Museum has since acquired an example of the species collected by Señ. Escalera in the Cameroons. The *E. pilifera*, Melich., of which I possess the type, is an exact synonym of Walker's species, but I am answerable for the erroneous locality "Antillen." I forwarded my unworked material to Dr. Melichar when he was preparing his monograph, and amongst them some specimens which I had acquired as from, and labelled, "West Indies." This must have been a wrong locality, and they should all have probably been labelled "West Africa." The same remark applies to the following species.

Epitemna retracta.

Flatoides retractus, Walk. List Hom. ii. p. 416, iv. t. iii. fig. 3 (1851).

Epitemna retracta, Melich. Mon. Ricaniid. p. 248 (1898).

Epitemna speculifera, Melich. *loc. cit.* p. 250.

Hab. W. Africa.

Genus RICANOPTERA.

Ricanoptera, Melich. Mon. Ricaniid. p. 253 (1898).

Type, *R. inculta*, Melich.

Ricanoptera varia.

Ricania varia, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 155 (1868).

Hab. Flores.

Genus EURICANIA.

Euricania, Melich. Mon. Ricaniid. p. 258 (1898).

Type, *E. ocellus*, Walk.

Euricania concinna.

Tarundia concinna, Stål, Tr. Ent. Soc. Lond. (3) i. p. 590 (1863).

Hab. Aru Islands.

Euricania subapicalis.

Ricania subapicalis, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 153 (1868).

Hab. Aru Islands.

Euricania aperiens.

Flatoides aperiens, Walk. List Hom. Suppl. p. 103 (1858).

Hab. Fiji Islands.

A small species allied to *E. tristicula*, Stål.

MOTUMOTUA, gen. nov.

Resembling *Euricania*; tegmina with the first longitudinal vein proceeding from the upper end of basal cell and furcate before middle as in *Euricania*, second and third not arising from a common stem at lower end of basal cell, but second and third bifurcating beyond cell, all the veins connected and the whole corium covered with transverse veins; face as broad as long, centrally and sublaterally carinate, the lateral carinations strong and distinct.

Type, *M. trinotata*, Walk.

Motumotua trinotata.

Ricania trinotata, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 152 (1868).

Hab. New Guinea.

Motumotua bicincta.

Ricania bicincta, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 153 (1868).

Hab. Morty.

MOTUA, gen. nov.

Tegmina with the first and second longitudinal veins proceeding from a common origin at upper end of cell, third and fourth bifurcating from lower end of cell; basal third of corium practically without transverse veins, remaining two-thirds thickly transversely veined; other characters as in *Euricania* and *Motumotua*.

Type, *M. humeralis*, Walk.

This genus is also allied to *Hajar*, Kirk., from the description of which it differs in having the clavus somewhat thickly transversely veined, not "six or seven transverse nerves (*sic*) in clavus," corium not with "few transverse nervures," but with the apical two-thirds thickly transversely veined.

Motua humeralis.

Ricania humeralis, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 161 (1868).

Hab. Mysol.

Motua? cribrata.

Ricania cribrata, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 162 (1868).

Hab. Mysol.

Genus TARUNDIA.

Tarundia, Stål, Berl. ent. Zeitschr. iii. p. 325 (1859); id. Rio Jan. Hem. ii. p. 70 (1862).

Type, *T. servillei*, Spin.

Tarundia boadicea, sp. n.

Body and legs greenish ochraceous; tegmina sordidly hyaline, the venation fuscous, the stigma pale fuscous; wings pale hyaline, the venation fuscous; vertex short, broadly transverse, the anterior and lateral margins ridged; face about as long as broad, tricarinate, the central carination straight and continuous, the lateral carinations indistinct and not continuous; clypeus centrally longitudinally ridged; posterior tibiæ with a strong subapical spine; tegmina with the costal membrane containing about ten transverse veins, the stigma with five oblique veins, the venation very similar to that of *T. glaucescens*, Melich., as figured by that describer (Mon. Ricaniid. Taf. xiii. fig. 16), but with the venation of the clavus different to that species, in the usually

six transverse veins, the first and second are somewhat close together before middle, the third and fourth similarly placed beyond middle, the fifth and sixth wide apart between the latter pair and apex, sometimes there is an additional transverse vein between the first pair and the base.

Long., excl. tegm., 7 mm. ; exp. tegm. 23 to 24 mm.

Hab. New Britain.

A few specimens of this species were sent to me some thirty years ago by the recently deceased Dr. Schmeltz, at that time custodian of the then Godeffroy Museum at Hamburg. I could not then identify it, but the figures of the described species given by Dr. Melichar in his monograph of the subfamily now enable me to do so. I have placed a cotype in the British Museum.

T. boadicea is allied to *T. glaucescens*, Melich., by the venation of the corium, but differs by that of the clavus, which more resembles that of *T. curtula*, Melich.

APACHNAS, gen. nov.

Vertex short, broadly transverse, the eyes considerably extending over the lateral margins of the pronotum; face about as long as broad, the posterior lateral margins obliquely directed to clypeus, tricarinate, the central carination straight, the lateral carinations moderately oblique; clypeus finely medially carinate; pronotum broader than vertex, centrally carinate; mesonotum tricarinate, the lateral carinations anteriorly curved inwardly and outwardly doubly attached to the anterior margin, by a longitudinal carinate line from near middle and by a shorter line near anterior margin; posterior tibiae with two strong spines on apical area; tegmina and wings hyaline; tegmina with the costal and apical margins subequal in length, each much longer than the inner margin and with the costal membrane a little narrower than the radial area, with five transverse veins close together at base and three (wide apart) between these and stigma, which contains about seven oblique transverse veins; basal cell emitting three longitudinal veins from its outer margin, which are connected by transverse veins at about one-fourth from base, a second series of transverse veins and a subapical series of transverse veins, together enclosing four series of cells, there is also a continuous series of submarginal transverse veins, defining a narrow marginal area, clavus with the claval vein connected with the inner and posterior margins by two short oblique veins at a little before middle, followed by about four transverse veins somewhat wide apart.

Allied to *Tarundia* and *Hajar*.

Apachnas nobilis, sp. n.

Body and legs olivaceous; tegmina hyaline, the venation, interspaces between the basal transverse veins of costal membrane, stigma, a spot immediately beneath it with a pale centre, and costal margin from stigma to about one-fourth of apical margin, fuscous brown, a series of small pale fuscous apical marginal spots, this marginal area a little darker than the discal colour of the corium; wings hyaline, the venation fuscous; structural characters as in generic diagnosis.

Long., excl. tegm., $6\frac{1}{2}$ mm.; exp. tegm. 22 mm.

Hab. Nilgiris; N. slope, 3300 feet (*Sir G. Hampson*).

Genus PRIVESA.

Privesa, Stål, Rio Jan. Hem. ii. p. 70 (1862).

Type, *P. lævifrons*, Stål.

Privesa stipata.

Flatoides stipatus, Walk. List Hom. ii. p. 411 (1851).

? *stipatus*, Melich. Mon. Ricaniid. p. 343 (1898).

Hab. "Australia."

Genus ARMACIA.

Armacia, Stål, Rio Jan. Hem. ii. p. 70 (1862).

Type, *A. clara*, Stål.

Armacia basigera.

Ricania basigera, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 153 (1868).

Ricania consobrina, Walk. *loc. cit.* p. 159.

Armacia basigera, Melich. Mon. Ricaniid. p. 290 (1898).

Armacia consobrina, Melich. *loc. cit.*

Hab. Papua.

Armacia latipennis.

Ricania latipennis, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 160, t. iii. fig. 15 (1868).

Ricania emarginata, Walk. *loc. cit.*

Alisca latipennis, Melich. Mon. Ricaniid. p. 293 (1898).

Hab. Aru, Batchian, Sula.

LUGARDIA, gen. nov.

Vertex very short, much broader than long, a little longer

at the region of the eyes, the lateral and anterior margins moderately ridged; face broader than long, transversely carinate between eyes, and between this carination and the anterior margin there is a central longitudinal carination, lateral margins straight at inner areas of eyes and then obliquely narrowing to clypeus, which is very strongly centrally ridged; pronotum fully twice as long as vertex, anteriorly convexly produced and centrally longitudinally carinate; mesonotum more than twice as long as pronotum, tricarinate, the central carination straight, the lateral carinations curved and meeting a little before anterior margin; legs moderately short and stout, the posterior tibiæ with two strong spines; tegmina about one and a half times longer than broad, the apical considerably longer than the inner margin, costal margin a little convexly arched, apex rounded, basal cell emitting from its upper outer angle two contiguous longitudinal veins with a common origin, from the lower outer angles two other veins with a common origin and which widely bifurcate and form a large cell, three transverse discal series of large prominent cells, the central series shortest and consisting of two cells only, the outer series longest; wings somewhat small, the veins longitudinal.

This genus may be placed between *Armacia* and *Alisca*.

Lugardia mimica, sp. n.

♂. Head, face, clypeus, pronotum, mesonotum, and sternum black, margins of sternum and suffusions to abdomen ochraceous; legs black or piceous, annulations to the anterior tibiæ, and all the tarsi ochraceous; tegmina black, with a large, broad, discal, irregular, macular, hyaline fascia, broadest on basal half of tegmen and upwardly narrowing to costal margin near apex, costal margin irregularly marked with small greyish-white spots and apical margin marked with two clusters of larger hyaline spots, basal area sparsely suffused with small linear ochraceous markings; wings hyaline, the apical area broadly suffused with fuscous.

♀. All the black markings of body and tegmina replaced by piceous brown.

Long., excl. tegm., ♂ 4, ♀ 5 mm.; exp. tegm., ♂ 16, ♀ 18 mm.

Hab. South Africa; N'Gami Country (*Col. F. D. Lugard*, Brit. Mus.).

Lugardia mimica, apart from structural characters, exhibits a strong superficial resemblance to *Ricanoptera mellerborgi*, Stål, a well-known Oriental species. The difference in

habitat, however, in agreement with a canon of the theory, prevents its being adduced as an example of "mimicry."

Genus VUTINA.

Vutina, Stål, Ann. Soc. Ent. Fr. (4) iv. p. 64 (1864).

Type, *V. sexmaculata*, Sign.

Vutina atrata.

Flata atrata, Fabr. Syst. Rhynch. p. 47. 10 (1803).

Flatoides humeralis, Walk. List Hom. ii. p. 405 (1851).

Vutina atrata, Stål, Hem. Fabr. ii. p. 106 (1869).

Ricania feralis, Fowl. Biol. Centr.-Amer., Rhynch.-Hom. ii. pt. 1, p. 65, t. viii. fig. 7 a (1900).

Hab. Neotropical Region.

Genus MINDURA.

Mindura, Stål, Rio Jan. Hem. ii. p. 69 (1862); id. Öfv. Vet.-Ak. Förh. xxvii. p. 770 (1870).

Type, *M. alligata*, Walk.

Stål originally (1862) gave the *Flata obscura*, Fabr., as type of this genus. This species he subsequently and rightly, in his 'Hemiptera Fabriciana' (1869), placed in the genus *Pochazia*. In his 'Hemiptera Insularum Philippinarum' (1870) he describes his *Mindura subfasciata* = *Nogodina alligata*, Walk., and this must be taken as the type of *Mindura*.

Mindura alligata.

Nogodina alligata, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 170 (1868).

Mindura subfasciata, Stål, Öfv. Vet.-Ak. Förh. 1870, p. 770; Melich. Mon. Ricaniid. p. 302 (1898):

Hab. Philippines, Ceram.

Mindura signatifrons.

Nogodina signatifrons, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 164 (1868).

Hab. New Guinea.

Mindura guttifrons.

Nogodina guttifrons, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 164 (1868).

Hab. Sula.

Mindura invaria.

Nogodina invaria, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 166 (1868).

Hab. Sula.

Mindura interrupta.

Pochazia interrupta, Walk. Journ. Linn. Soc. Lond., Zool. i. p. 91 (1857).

Ricania walkeri, Atkins. Journ. Asiat. Soc. Beng. lv. p. 59 (1886).

Hab. Singapore.

Genus SASSULA.

Sassula, Stål, Öfv. Vet.-Ak. Förh. 1870, p. 769.

Detya, Dist. Faun. B. I., Rhynch. iii. p. 387.

Type, *S. osmyloides*, Walk.

Sassula osmyloides.

Ricania osmyloides, Walk. Journ. Linn. Soc. Lond., Zool. i. p. 157 (1857).

Sassula osmyloides, Melich. Mon. Ricaniid. p. 312 (1898).

Nogodina sublineata, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 167 (1868); Melich. Mon. Ricaniid. p. 307 (1898).

Hab. Malayan Archipelago.

Sassula sorurcula.

Miriza sorurcula, Stål, Öfv. Vet.-Ak. Förh. 1865, p. 164.

Sassula sorurcula, Melich. Mon. Ricaniid. p. 312 (1898).

Detya fusconebulosa, Dist. Faun. B. I., Rhynch. iii. p. 388 (1906).

Hab. Burma, Tenasserim, Cambodia, Borneo.

Sassula concolor.

Nogodina concolor, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 166 (1868); Melich. Mon. Ricaniid. p. 309 (1898).

Hab. Morty.

Sassula subguttata.

Ricania subguttata, Walk. List Hom., Suppl. p. 105 (1858).

Ricania subguttata, var., Walk. Journ. Linn. Soc. Lond., Zool. x. p. 165 (1868).

Nogodina subguttata, Melich. Mon. Ricaniid. p. 309 (1898).

Hab. Celebes.

Sassula subviridis.

Nogodina subviridis, Kirby, Mon. Christmas Isld. p. 135, pl. xv. fig. 10 (1900).

Hab. Christmas Island.

BIOLLEYANA, gen. nov.

Allied to *Sassula*, Stål, but differing by the structure of the face, which possesses three distinct longitudinal carinæ, which are almost continuous from base to apex, the central one straight, the others very slightly curved; the tegmina are also shorter and broader, not twice as long as broad, which they are in *Sassula*.

Type, *B. pictifrons*, Stål.

Biolleyana contains the Neotropical species hitherto included in the Indian and Malayan genus *Sassula*.

I have dedicated this genus to the memory of the late Prof. Biolley, of San José, Costa Rica, who did so much to help workers on the insect fauna of Central America.

Biolleyana pictifrons.

Nogodina pictifrons, Stål, Stett. ent. Zeit. xxv. p. 53 (1864).

Sassula pictifrons, Melich. Mon. Ricaniid. p. 311 (1898); Fowl. (part.) Biol. Centr.-Am., Rhynch.-Hom. i. p. 67 (1900).

Hab. Central America.

Biolleyana fenestrata.

Nogodina fenestrata, Gerst. Mitth. nat. Ver. Neu-Vorp. xxvii. p. 46 (1895).

Sassula fenestrata, Melich. Mon. Ricaniid. p. 313, Taf. xii. fig. 2 (1898).

Sassula pictifrons, Fowl. (part.) Biol. Centr.-Am., Rhynch.-Hom. i. p. 67 (1900).

Hab. Panama, Honduras.

Fowler has not referred to this species in his enumeration of the Central-American Ricaniidæ. The figure of the face given by Melichar (Taf. xiii. fig. 22) is not accurate and represents a species of the genus *Sassula*.

Biolleyana costalis.

Sassula costalis, Fowl. Biol. Centr.-Am., Rhynch.-Hom. i. p. 68, t. viii. fig. 12 a (1900).

Hab. Nicaragua.

Genus VARCIA.

Varcia, Stål, Öfv. Vet.-Ak. Förh. 1870, p. 769.

Type, *V. nigrovittata*, Stål.

Varcia plena.

Nogodina plena, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 168 (1868); Melich. Mon. Ricaniid. p. 308 (1898).

Hab. Key Island.

Varcia flavicostalis.

Ricania flavicostalis, Kirby, Proc. Zool. Soc. 1888, p. 554.

Varcia flavicostalis, Melich. Mon. Ricaniid. p. 319 (1898); Kirby, Mon. Christmas Isld. p. 133, pl. xv. fig. 7 (1900).

Var. *affinis*, Kirby.

Ricania affinis, Kirby, Proc. Zool. Soc. 1888, p. 554.

Nogodina affinis, Melich. Mon. Ricaniid. p. 309 (1898); Kirby, Mon. Christmas Isld. p. 134 (nec fig.) (1900).

Kirby, in the 'Monograph of Christmas Island,' has followed Melichar in placing *R. flavicostalis* and *R. affinis* in different genera. They are, however, but vars. of one species. The neuration in Kirby's two figures has been drawn too diverse.

Varcia venosa.

Nogodina venosa, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 169 (1868).

Hab. Flores.

Walker refers to the differential characters between this species and *V. plena*, Walk., as being found in the markings of the face and the size of the tegminal stigma. In *V. venosa* the costal membrane is narrower than in *V. plena*.

Varcia sordida, sp. n.

— *sordida*, Walk., MS.

In general appearance and markings very closely resembling *V. hemerobii*, Walk., but smaller in size and with the costal membrane very much narrower and containing ten to twelve transverse veins; the face has four distinct black spots on anterior margin. Other characters generally as in *V. hemerobii*.

Long., excl. tegm., 9 mm.; exp. tegm. 24 mm.

Hab. Aru, Dorey (Brit. Mus.). Duke of York Island (Coll. Dist.).

Varcia sordida possesses a narrower costal membrane than that of any other species of the genus with which I am acquainted.

Genus GÆTULIA.

Gætulia, Stål, Stett. ent. Zeit. 1864, p. 54.

Type, *G. plenipennis*, Walk.

Kirkaldy (Rep. Exp. Stat. Haw. Plant. Assoc. iii. p. 98, 1907) writes:—"Distant states that the head is considerably narrower than the pronotum. This is incorrect as a generic character, for in *G. chrysopoides* the eyes project very slightly beyond the pronotum; Distant's figure also scarcely bears out his diagnosis; moreover, the clypeus is *not* carinate, as, indeed, Stål also states." This pronouncement of Kirkaldy is unfortunately inaccurate and misleading.

1. That the head considerably narrower than the pronotum "is incorrect as a generic character" is an amazing remark when the accurate figure of the Neotropical type (*G. plenipennis*, Walk., = *pudibunda*, Stål) given by Fowler (Biol. Centr.-Am., Rhynch.-Hom. i. t. viii. fig. 13) is available for consultation by one who is evidently unacquainted with the species. The Australian species *Ricania chrysopoides*, Walk., which Kirkaldy refers to as typical of *Gætulia*, has been so placed by none but himself; Melichar, in his Monograph (not having seen the species), merely remarks "Scheint zur Gattung *Gætulia* zu gehören."

2. Stål did not state that "the clypeus is *not* carinate," but "clypeus lateribus haud carinatis." The clypeus in the type is strongly centrally carinate, and laterally, in my opinion, also finely carinate; in the *chrysopoides*, Walk., it is distinctly so.

NURUNDERIA, gen. nov.

Allied to *Gætulia*, but differing by the head (including eyes) being as wide as the pronotum; face narrow elongate, the margins parallel, not widened beyond middle, and then obliquely narrowed to clypeus, which is centrally strongly longitudinally carinate and laterally finely carinate.

Type, *N. chrysopoides*, Walk.

Nurunderia chrysopoides.

Ricania chrysopoides, Walk. Journ. Ent. i. p. 312 (1862).

Gætulia chrysopoides, Kirk. Rep. Exp. Stat. Haw. Plant. Assoc. iii. p. 98 (1907).

Hab. Sydney (type, Pascoe Coll. in Brit. Mus.).

POSTSCRIPT.

Subfam. *ACHILINÆ*.

Apateson albomaculatum, Fowl. Biol. Centr.-Am., Rhynch.-Hom. i. p. 70, tab. viii. fig. 15 a (1900).

This genus and species were placed by Canon Fowler, though with reservation, in the Ricaniidæ. By the structure of the clypeus, which has the lateral margins strongly carinate, it seems more naturally to belong to the Achilinæ.

Subfam. *ISSINÆ*.

Genus *GALBALÆCA*.

Galbalæca, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 170 (1868).

Type, *G. retifera*, Walk.

This genus, placed by Walker at the end of the Ricaniidæ and after the genus *Nogodina*, belongs to the Issinæ and is allied to the genus *Eupilis*, Walk.

Galbalæca retifera.

Galbalæca retifera, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 171 (1868).

Hab. New Guinea.

XL.—Notes on *Fossorial Hymenoptera*.—I.

By ROWLAND E. TURNER, F.Z.S., F.E.S.

THE following new species were presented to the British Museum by Mons. A. Ducke, of the Pará Museum. The collection is of interest as containing females of the little-known Thynnid genus *Scotæna*, Klug, which differ from those of *Spilothynnus* in the short, broad, and more or less excavated pronotum and in the form of the pygidium.

Fam. **Thynnidæ**.

Spilothynnus remotus, sp. n.

♂. Clypeus very slightly produced, narrowly and shallowly emarginate at the apex, the angles of the emargination produced into porrect tubercles, a very small tubercle in the