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ON THE NOTODONTIDAE (LEPIDOPTERA) FROM NEW GUINEA IN THE LEIDEN MUSEUM

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With 15 text-figures

Summary. — An annotated list of the Notodontidae (Lepidoptera) from New Guinea, in the collections of the Rijksmuseum van Natuurlijke Historie, Leiden; with descriptions of two new genera and twelve new species.

Samenvatting. — Een geannoteerde lijst der Notodontidae (Lepidoptera) van Nieuw Guinea, in de verzamelingen van het Rijksmuseum van Natuurlijke Historie, Leiden; met beschrijvingen van twee nieuwe geslachten en twaalf nieuwe soorten.

This paper deals with the Notodontidae (Lepidoptera) from New Guinea, now in the collections of the Rijksmuseum van Natuurlijke Historie, Leiden. Most of the specimens were collected by the late L. J. Toxopeus, who took part in the Netherlands Indian — American Expedition to Netherlands New Guinea (3rd Archbold Expedition to New Guinea 1938-'39). Other material was collected by the Netherlands Expedition to the Star Mountains ("Sterrengebergte"), 1959 (collector not stated on the labels; "Neth. N.G. Exp." in text). Other collectors were W. Stüber (mainly in the outskirts of Mt. Bewani) and R. Straatman (Biak, Schouten Is.; Hollandia); finally, some specimens were collected at Hollandia by L. D. Brongersma and L. B. Holthuis.

The results of the various expeditions form a very good sample of the Notodontid fauna of New Guinea. Most of the genera now known and many species, are represented, with the usual predominance of the three large genera *Quadricalcarifera* Strand, *Cascera* Walker, and *Omichlis* Hampson, the latter two almost endemic and very characteristic. That the fauna of New Guinea is far from well known, is evident from the discovery of two new genera and twelve new species in the present material.

The author spent some time in the parallel study of the corresponding material in the British Museum (Natural History), chiefly from the Roth-

schild and Joicey & Talbot collections. He is very much obliged to Messrs. P. E. S. Whalley, Dr. I. W. B. Nye, D. S. Fletcher, and W. H. T. Tams, for the many-sided help received during several visits to the British Museum. The author is likewise obliged to Dr. A. Diakonoff, who suggested the present study, arranged for the loan of the present material from the Leiden Museum, and who helped him in various ways.

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NOTES ON SOME COLLECTING LOCALITIES

Most of the specimens mentioned in this paper were collected by L. J. Toxopeus as a member of the Third Archbold Expedition to New Guinea. The labels attached to these specimens bear rather cryptic indications of the various "camps", and it is deemed necessary to give a few details on the several localities mentioned below.

A detailed map of the region visited by the expedition was appended to the itinerary by Toxopeus (1940, *Treubia* 17 (4): 271-279), and to the first part of Diakonoff's "Microlepidoptera of New Guinea" (1952, *Verh. Kon. Ned. Akad. Wet., Natuurk.* (2) 49 (1): 8-9). The following notes are taken from these papers.

The various "camps" were clustered in two groups, one around the Bernhard Camp on the left bank of Idenburg R., about 3.4° S 139.2° E, and about 190 km due SW of Hollandia. The farthest camp was located at 23 km from the Bernhard Camp. This group also included the following.

Araucaria Camp, 5 km SW of Bernhard Camp, 850 m altitude, in the basin of the Araucaria R. Rain forest, many palms and wild sugar cane on the banks.

Rattan Camp, 9 km SW of Bernhard Camp, 1200 m altitude. Dense jungle with many rattan-palms, on a ridge sloping into the Araucaria R.

Sigi Camp, in the swampy Sigi R. valley, 1500 m altitude. More open and more exposed to the sun than Rattan Camp.

Mist Camp, 21 km SW of Bernhard Camp, 1800 m altitude. Very damp forest in a saddle, on the mountain ridge S. of Bernhard Camp on the Idenburg R.

Top Camp, 23 km SW of Bernhard Camp, 2150 m altitude. An outpost of Mist Camp, on a sparsely overgrown summit, less cloudy.

The second group of camps was located between Upper Balim R., lake Habbema and Mt. Wilhelmina, about 4° S 138.6°-138.8° E, nearly 75 km due SW of the first group. The Balim R., 1600 m altitude, has in that portion

no primeval forests, but many grass-covered hills. Lake Habbema is located about 15 km N of Mt. Wilhelmina. The landscape is moorland, fens and sparse coniferous forest. This second group included:

Ibèlè Camp, 14 km NE of lake Habbema, 2200 m altitude. Steep banks of Ibèlè R., at the borders of Papuan cultivated grounds.

Moss Forest Camp, 9 km NE of Lake Habbema, 2800 m altitude. High mountain moss forest, mainly *Sycopsis* (?) trees, few Conifers, thick undergrowth of Orchids and Ferns. At 100 m lower down, local change into richer vegetation without thick moss.

Lake Habbema Camp, 3250-3400 m altitude. For particulars, see above.

Letterbox Camp, 5 km NE of Mt. Wilhelmina-top, 3560 m altitude. Swampy alpine vegetation, at the timber line.

Scree Valley Camp, 2 km E of Mt. Wilhelmina-top, 3800 m altitude. Alpine above timber line, shrubs at sheltered spots only.

The localities of the Netherlands Expedition to the Star Range were at the Sibil R. ("Ok" Sibil) valley, $4^{\circ} 54' 43''$ S $140^{\circ} 37' 49''$ E; and "Camp 39a" in the Antares district at $4^{\circ} 54' 32''$ S $140^{\circ} 48' 43''$ E.

Ortholomia Felder

Ortholomia moluccana Felder

Ortholomia moluccana Felder, 1861, Sitzgber. Acad. Wiss. Wien **43**: 40.

Male: Star Range, 1260 m, Sibil (at light), 10.V.1959 (Neth. N.G. Exp.).

Ortholomia turneri (Bethune-Baker)

Osica turneri Bethune-Baker, 1904, Novit. Zool. **11**: 374, pl. 6 fig. 31.

Male: Star Range, 1260 m, Sibil, 19.VII.1959 (Neth. N.G. Exp.). Female: Schouten Is., Biak, 6.VIII.1946 (R. Straatman).

Archigargetta Kiriakoff

Archigargetta diakonoffi spec. nov. (fig. 1)

Male. — Head and palpi Vandyck brown; antennae rufous brown; thorax Vandyck brown above; tegulae mixed with light orange brown; underside and legs buffish grey brown; abdomen umber grey; anal tuft tinged with rufous. Fore wing: base and space between inner and outer lines light brownish orange, faintly sprinkled with brown; rest of the wing dark Vandyck brown; lines double; inner line more or less vertical, faintly dentate; outer line running from two thirds of costa to three quarters of dorsum, toothed inwards in interval IV, then directed obliquely inwards and

slightly incurved; subterminal line represented by a series of black dots, partly followed by paler blotches; cilia concolorous. Hind wing rather dark umber grey. Length of the fore wing, 16 mm.

Differs from all known species of the genus in the pattern of the fore wings, barred with brownish orange and dark brown.

Male genitalia. — Very near those of *A. cyclopea* Kiriakoff and *A. amydra* (Turner). The uncus is more depressed, and the subuncus directed forwards; the large knob at the base of the valva much slenderer than in either of the species mentioned, tapering and ending in a sharp point; the aedeagus is shorter than the valva, as in *A. amydra*, but it bears a smaller number of spines; the median projection of fultura inferior rounded, not triangular as in *A. cyclopea* and *A. amydra*.

Holotype, male: Schouten Is., Biak, 3.VII.1946 (R. Straatman).

Euhampsonia Dyar

Euhampsonia gigantea (Druce)

Nadata gigantea Druce, 1909, Ann. Mag. Nat. Hist. (8) 3: 347.

Males: Bewani Hills, Ampas, 20.I.1938 (W. Stüber); Hollandia, 31.III.1946 (R. Straatman). Females: Bewani Hills, Ampas, 16.I.1938, 12.XI.1938 (W. Stüber).

In the females, the termen of the fore wing is much less produced between the apex and vein 4; the antennal pectinations as in the males; size larger, length of the fore wing 53 and 55 mm in the two available specimens, as against 47 mm in the males.

Phalera Hübner

Phalera peruda Druce

Phalera peruda Druce, 1888, Proc. Zool. Soc. Lond.: 574, pl. 29 fig. 4.

Males: Schouten Is., Biak, 8.VII.1946, 29.X.1946 (R. Straatman); Bewani River territ., Om, 22.II.1939 (W. Stüber). Females: Hollandia, 23.XI.1954 (L. D. Brongersma & L. B. Holthuis); Ibid., 31.III.1946 (R. Straatman); Schouten Is., Biak, 8.X.1946 (R. Straatman).

Antennae ciliated for two thirds in males, filiform in females. Females larger, length of the fore wing 31 to 36 mm, against 29 to 30 mm in the males.

Rhabdoturnaca gen. nov.

Proboscis atrophied; palpi not exceeding the diameter of the eye in length, porrect, last joint hidden in the pilosity; antennae of the male bipectinated for about two thirds, the longest pectinations about thrice the

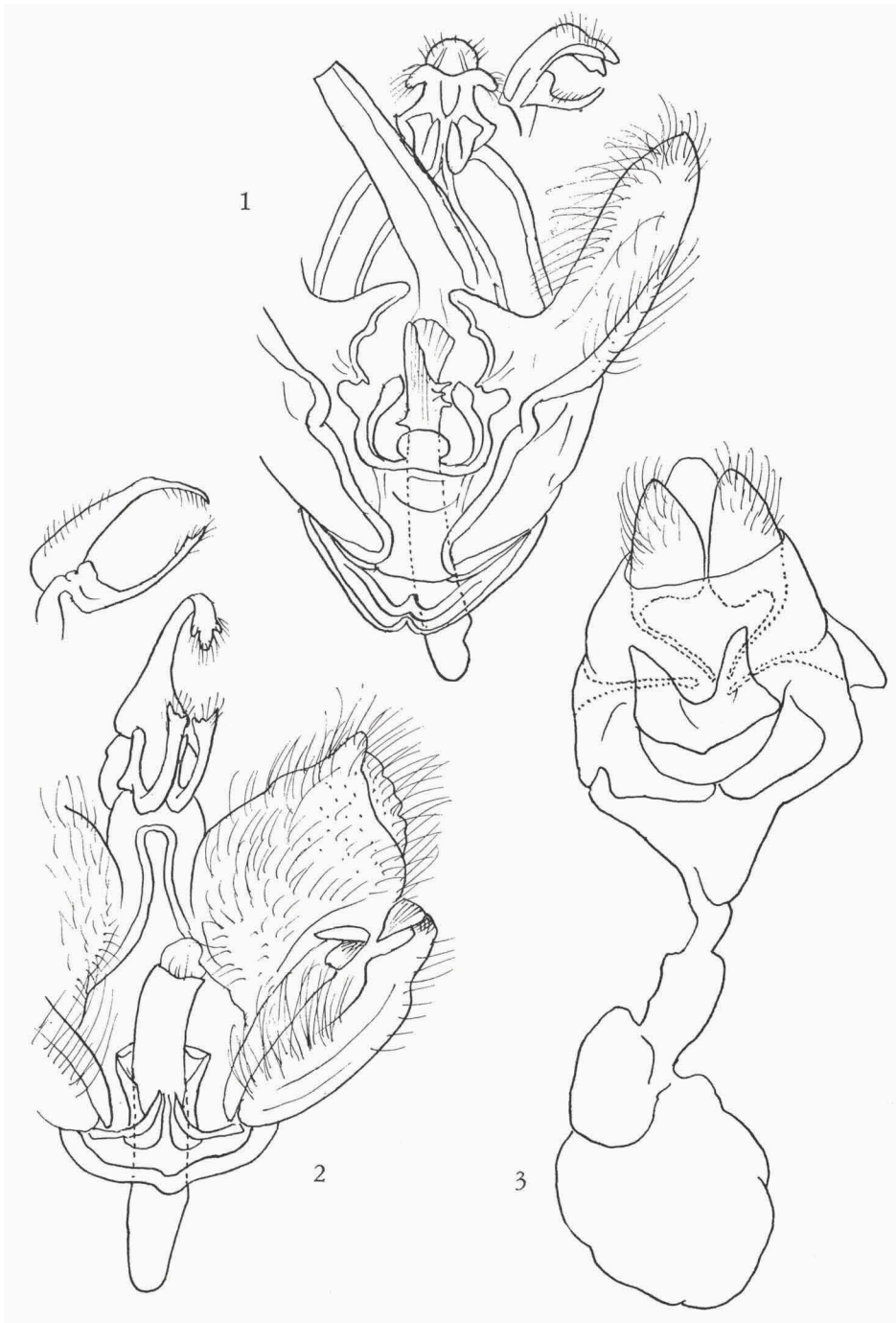


Fig. 1-3. Genitalia. 1, *Archigargetta diakonoffi* spec. nov., male; 2, 3, *Rhabdoturnaca subcarnea* (Warren); 2, male, 3, female.

breadth of the shaft. Hind tibiae with two pairs of spurs. Fore wing long and narrow; costa faintly arched at base and near apex, otherwise straight; apex forming an angle of about 100° ; termen oblique, very faintly arched; tornus forming an angle of about 135° ; dorsum arched at base, otherwise straight, about $\frac{4}{5}$ of costa in length. Venation: vein 2 from $\frac{3}{4}$ of cell; 3 and 4 well separated; 5 from above the middle of the discocellulars; lower discocellular strongly incurved; 6 from upper angle of cell, at a point with the stalk of 10, 7, 8 + 9. Hind wing broad; costa more or less straight; apex rounded. Venation: vein 2 from $\frac{5}{7}$ of cell; 3 and 4 approximated; 5 from slightly above the middle of the discocellular; 6 and 7 stalked for half of 7; 8 approximated to the cell for more than $\frac{3}{5}$ of the latter.

Male genitalia (fig. 2). — Uncus long, curved, tapering to a trifid extremity; gnathi long, slender, arched, with two or three terminal indentations. Tegumen narrow. Valva very broad, rounded, with a small apical prominence; sacculus leaf-shaped, with a small dorsal hook-shaped process, and with the apex produced into an upcurved, lance-shaped point. Aedeagus shorter than the valva, moderately stout, bent at the middle; fultura inferior produced laterally into slender processes, connected with fultura superior. Saccus very short, broad. Plate of the VIIIth sternite oval, broader proximally; distal margin faintly excised at middle.

Female genitalia (type specimen of *Turnaca subcarnea* Warren, in the British Museum, Natural History) (fig. 3). — Apophyses anteriores and posteriores slender and moderately long, about equal; lamella antevaginalis produced at the distal angles into diverging horns; base of ductus bursae broad and sclerotized; no signum.

Type species. — *Turnaca subcarnea* Warren.

This new genus belongs in the vicinity of *Pydna* Walker.

Rhabdoturnaca subcarnea (Warren)

Turnaca subcarnea Warren, 1903, Novit. Zool. **10**: 120.

Male: Araucaria Camp, 12.III.1939 (L. J. Toxopeus).

Cerura von Schrank

Cerura multipunctata Bethune-Baker

Cerura multipunctata Bethune-Baker, 1904, Novit. Zool. **11**: 381, pl. 6 fig. 9.

Material: Bewani Hills, Om, without date (W. Stüber) (2 specimens); Bewani River territ., Mt. Haga, 1200 m, 8.II.1939 (W. Stüber); Star Range, Ok Sibil, 1260 m, 8.VI.1959 (2 specimens), 8.VII.1959 (Neth. N. G. Exp.); Rattan Camp, II-III.1939 (L. J. Toxopeus).

Quadricalcarifera Strand

This genus, the aestern vicariant of the Ethiopian *Desmeocraera*, is the most numerous of the Notodontid genera found in New Guinea. In the Leiden Museum there are 17 species, and there are many more in the British Museum (Natural History). More than half of the 17 species recorded in the present paper are new. It is perhaps worth mentioning that neither of the two large species, *Q. dubiosa* Bethune-Baker and *Q. kebeae* Rothschild, both represented in the museums of London and Tring by very long series, does figure in the material at Leiden.

Quadricalcarifera triplagosa (Rothschild)

Stauropus triplagosus Rothschild, 1917, Novit. Zool. **24**: 243.

Male: Schouten Is., Biak, 16.VII.1946 (R. Straatman). Females: Moss Forest Camp, 9.X-5.XI.1938 (L. J. Toxopeus).

Quadricalcarifera viridinitens (Rothschild)

Stauropus viridinitens Rothschild, 1917, Novit. Zool. **24**: 242.

Males: Schouten Is., Biak, 9.VIII.1945, 27.VI.1946, 10.X.1946 (R. Straatman).

Quadricalcarifera bella (Bethune-Baker)

Stauropus bella Bethune-Baker, 1904, Novit. Zool. **11**: 379, pl. 4 fig. 14.

Male: Rattan Camp, II-III.1939 (L. J. Toxopeus).

There is some doubt regarding the specific identification of this specimen.

Quadricalcarifera rufotegula (Gaede)

Desmeocraera rufotegula Gaede in Seitz, 1930, Grossschmett. Erde 10: 629.

Males: Bewani Hills, Keerom, 1000 m, 28.X.1938 (W. Stüber); Schouten Is., Biak, 11.VI.1947 (R. Straatman); Mist Camp, I.1939 (L. J. Toxopeus).

Quadricalcarifera testacea spec. nov. (fig. 4)

Male. Nearest to *Q. trisopylus* (Joicey & Talbot). Head, palpi and patagia light brick red; base of the palpi, periophthalmic region, gula and upper face of the fore legs, maroon red; antennal pectinations orange brown; shaft white. Thorax above rufous grey; underside and legs cream coloured, tinged with rufous. Tuft at the base of the abdomen cream coloured; abdomen pale yellowish brown above, cream coloured below; anal tuft tinged with rufous. Fore wing light rufous brown with a faint greyish tinge; markings blackish; base faintly sprinkled with yellowish green; basal line oblique, followed by a

black costal spot and a larger spot below cell; inner and outer lines double, wavy; typical markings faintly edged with whitish; costa tinged with brick red in the middle portion, and spotted with black; outer line strongly incurved between veins 7 and 4; lunule in interval III placed much more distally, preceded and followed by indistinct whitish spots; interval II also bearing white spots; subterminal line of irregular lunules; cilia darker, spotted with pale. Hind wing cream coloured, with a faint rufous discal blotch; outer third stronger tinged with rufous; costa barred with rufous brown; cilia tinged with rufous and spotted with whitish in basal half, cream coloured distally. Underside of the fore wing nearly wholly rufous. Length of the fore wing, 17 to 18 mm.

Male genitalia. — Uncus short, with the sides parallel; extremity slightly broadened and rounded; gnathi longer than the uncus, strongly curved, almost hooked at the tip. Tegumen narrow. Valva relatively broad, bearing a nearly terminal triangular process, directed inwards. Aedeagus longer than the valve (2.5 mm against 1.7 mm), stout, faintly curved in the proximal portion; fultura inferior cut straight at the distal margin. Saccus produced into a slender process. Sternal plate of the eighth urite broad, nearly square, with a semicircular distal excision and with a very short and broad proximal process.

Holotype, male: Top Camp, 25.I.1939 (L. J. Toxopeus). Paratype, male: Moss Forest Camp, 9.X.-5.XI.1938 (L. J. Toxopeus).

Quadricalcarifera trisospylus (Joicey & Talbot)

Stauropus trisospylus Joicey & Talbot, 1917, Ann. Mag. Nat. Hist. (8) 20: 60, pl. 2 fig. 1.

Males: Moss Forest Camp, 9.X.-5.XI.1938 (8 specimens); Top Camp, I.1939 (2 specimens); Ibèlè Camp, XI-XII.1938 (2 specimens); Rattan Camp, II-III.1939 (all L. J. Toxopeus); Star Range, 1260 m, Sibil (at light), 6.VI.1959 (Neth. N.G. Exp.). Female: Top Camp, I.1939 (L. J. Toxopeus).

Quadricalcarifera purpurascens (Rothschild)

Stauropus purpurascens Rothschild, 1917, Novit. Zool. 24: 242, pl. 3 fig. 9, 10.

Males: Top Camp, I.1939 (11 specimens); Mist Camp, I.1939; Moss Forest Camp, 9.X.-5.XI.1938 (11 specimens) (all L. J. Toxopeus). Females: Top Camp, I.1939 (2 specimens); Mist Camp, I.1939 (all L. J. Toxopeus).

Quadricalcarifera quadrivittata spec. nov. (fig. 5)

Male. — Easily distinguishable by the peculiar pattern of the fore wings, made up of dark maroon brown and metallic green bands. Head, palpi and antennae rufous maroon; collar and prothorax maroon, very strongly mixed with pale yellowish green; thorax above with less greenish admixture, and none at all dorsally; underside cream coloured; legs more or less tinged with maroon. Tuft at the base of the abdomen rufous maroon, becoming buffish terminally; abdomen buffish yellow; anal tuft tinged with maroon rufous. Extreme basis of the fore wing rufous, that colour extending on dorsum to $\frac{1}{4}$ of its length; the rufous area followed by a metallic yellowish green band, not reaching the dorsum, and by a slightly broader dark maroon band across the wing, obscurely double in the costal half; median area of the wing again metallic yellowish green; typical markings greyish, faintly edged with whitish; a whitish spot below the cell, on the distal margin of the brown band; a broad distal dark maroon band, with the distal line in it, the line consisting of very obsolete greenish lunules followed by rounded blackish spots; the maroon band followed by a metallic yellowish green wavy postdiscal line; terminal area of a lighter shade of brown; subterminal line wavy, of ground colour, faintly edged distally by metallic yellowish green scales; cilia dark maroon with whitish dots. Hind wing pale yellowish; veins tinged with rufous in outer area; costa spotted with maroon and pale; cilia maroon with pale basal spots, becoming yellowish terminally. Underside of the fore wing light rufous brown; termen narrowly yellowish. Length of the fore wing, 15.5 mm.

Male genitalia. — The male genitalia of this and of all following species of *Quadricalcarifera* belong to the same type characteristic of most of the New Guinea species. This unity of structure seems to have some taxonomic significance (i.e. it is more than a mere phenetic resemblance) and could be taken as a basis for the establishment of a geographic subgenus, occupying the eastern periphery of the generic area. The specific differences include the shape of the uncus, details of the aedeagus and of the fultura inferior, and the shape of the sternal plate. The general shape of the valva and of the aedeagus are very similar in all species concerned.

Uncus narrow, very faintly broadening distally; distal margin rounded; gnathi hooked. Fultura inferior semi-elliptic, with the distal margin produced at the angles. Saccus rather short and rounded. Sternal plate broad, with a short, slender proximal process.

Holotype, male: Top Camp, 21.I.1939. Paratype, male: Ibid., I.1939 (both L. J. Toxopeus).

Quadricalcarifera nitida (Rothschild)

Stauropus nitidus Rothschild, 1917, Novit. Zool. 24: 241, pl. 3 fig. 14, 15.

Males: Mist Camp, I.1939 (9 specimens); Top Camp, I.1939 (6 specimens); Moss Forest Camp, 9.X-5.XI.1938 (3 specimens). Female: Balim Camp, 1700 m, 16-27.XI.1938 (all L. J. Toxopeus).

Quadricalcarifera chloriola (Joicey & Talbot)

Stauropus chloriolus Joicey & Talbot, 1917, Ann. Mag. Nat. Hist. (8) 20: 59, pl. 1 fig. 15.

Males: Top Camp, I.1939 (5 specimens); Letterbox Camp, 27.IX.1938; Moss Forest Camp, 9.X-5.XI.1938 (3 specimens); Araucaria Camp, 24.III.1939 (all L. J. Toxopeus). Females: Star Range, 1260 m, Sibil, 28.VII.1950 (at light); Ibid., Ok Sibil, 1260 m, 19.VIII.1959, 6.VI.1959 (all Neth. N.G. Exp.); Rattan Camp, II-III.1939 (L. J. Toxopeus).

Quadricalcarifera poecilochroa spec. nov. (fig. 6)

Male. — Similar to *Q. flavicollis* (Rothschild), but smaller and with very little white. Antennae rufous, with the shaft whitish; palpi orange, maroon above; head and gula maroon; collar golden yellow, with a maroon spot in front; thorax above maroon; sides of the tegulae paler; underside and legs buff, strongly tinged with maroon; basal abdominal crest maroon in middle, white laterally; abdomen pale yellowish rufous; anal tuft tinged with maroon. Fore wing blackish maroon at base and in the distal part, paler maroon in the median area; base with a large golden green spot and a pale circular mark on the costa; costal streak golden green at middle, spotted with whitish distally; lines ill-defined; inner line forming the distal limit of the dark basal area; outer line double, dentate, very strongly incurved below cell, filled in with dark purplish grey and golden green scales; discocellular mark pale maroon, edged with whitish; outer line edged distally by yellow spots; spot above the tornus the largest; terminal area slightly sprinkled with golden green; cilia dark maroon, spotted with whitish. Hind wing pale yellowish; veins, a few blotches and terminal area pale rufous; latter variegated with pale; two large maroon costal spots, the preapical one darker and followed by a white apical spot; cilia rufous maroon, spotted with whitish. Length of the fore wing, 17 mm.

Male genitalia. — Uncus losenge-shaped terminally, with a median excision; gnathi longer than the uncus, hooked. Tegumen very narrow. Costal terminal process of the valva upcurved. Aedeagus very robust; fultura inferior shield-shaped with distal lateral hairy lobes. Saccus more or less triangular. Plate of the eighth sternum with the proximal margin rounded

and with the distal margin outcurved at middle, with a slight excision; proximal process about half of the plate in length, slender.

Holotype, male: Mist Camp, I.1939. Paratype, male: Ibid. (both L. J. Toxopeus).

Quadricalcarifera mediogrisea (Gaede)

Desmeocraera trisopylus f. *mediogrisea* Gaede in Seitz, 1930, Grossschmett. Erde **10**: 629, pl. 83 f.

Male: Moss Forest Camp, 9.X-5.XI.1938 (L. J. Toxopeus).

Quadricalcarifera flavicollis (Rothschild)

Stauropus nitida var. *flavicollis* Rothschild, 1917, Novit. Zool. **24**: 241.

Males: Moss Forest Camp, 9.X-5.XI.1938; Letterbox Camp, IX.1938; Scree Valley Camp, IX.1938 (2 specimens), 20.IX.1938 (2 specimens), 24.IX.1938 (2 specimens); Lake Habbema Camp, 19.III.1938, 21.III.1938, 26.III.1938 (all L. J. Toxopeus). Females: Star Range, 1260 m, Sibil (at light), 6.VI.1959, 28.VII.1958 (Neth. N.G. Exp.). A third female from Sibil, 21.VI.1959, is placed here with some doubt; it differs in a much darker ground colour of the fore wings, which is nearly black, with the terminal area for the most part white; typical spots cloudy. Size not different (fore wing, 20 mm).

Q. flavicollis, as well as *Q. mediogrisea* have proved to be good species, not forms of other species as originally described; the male genitalia present definite differences.

Quadricalcarifera nitidula spec. nov. (fig. 7)

Male. — The wing pattern reminds one of *Q. nitida* and *Q. chloriola*, but the metallic green scales are but few, and the yellow is replaced by whitish. Head, palpi and collar white mixed with chestnut; palpi brown above; antennae light reddish brown. Thorax above brownish, with the tips of the tegulae paler; underside and legs pale greyish buff; fore femora brownish; fore tibia and tarsi whitish, spotted with chestnut; other tarsi ringed with whitish and brownish; abdominal basal crest chestnut; abdomen pale greyish buff. Fore wing whitish thickly sprinkled with chestnut; fore part of the base and parts of disc with a few greenish scales; dorsal part of the base chestnut, irregularly margined distally with blackish brown; inner line represented by a blackish brown subcostal spot and by the outer margin of the chestnut basal area; in between, two white spots placed horizontally; costal part of the disc whitish; typical markings in the cell and on the discocellular rather broadly edged with white; outer line double, composed

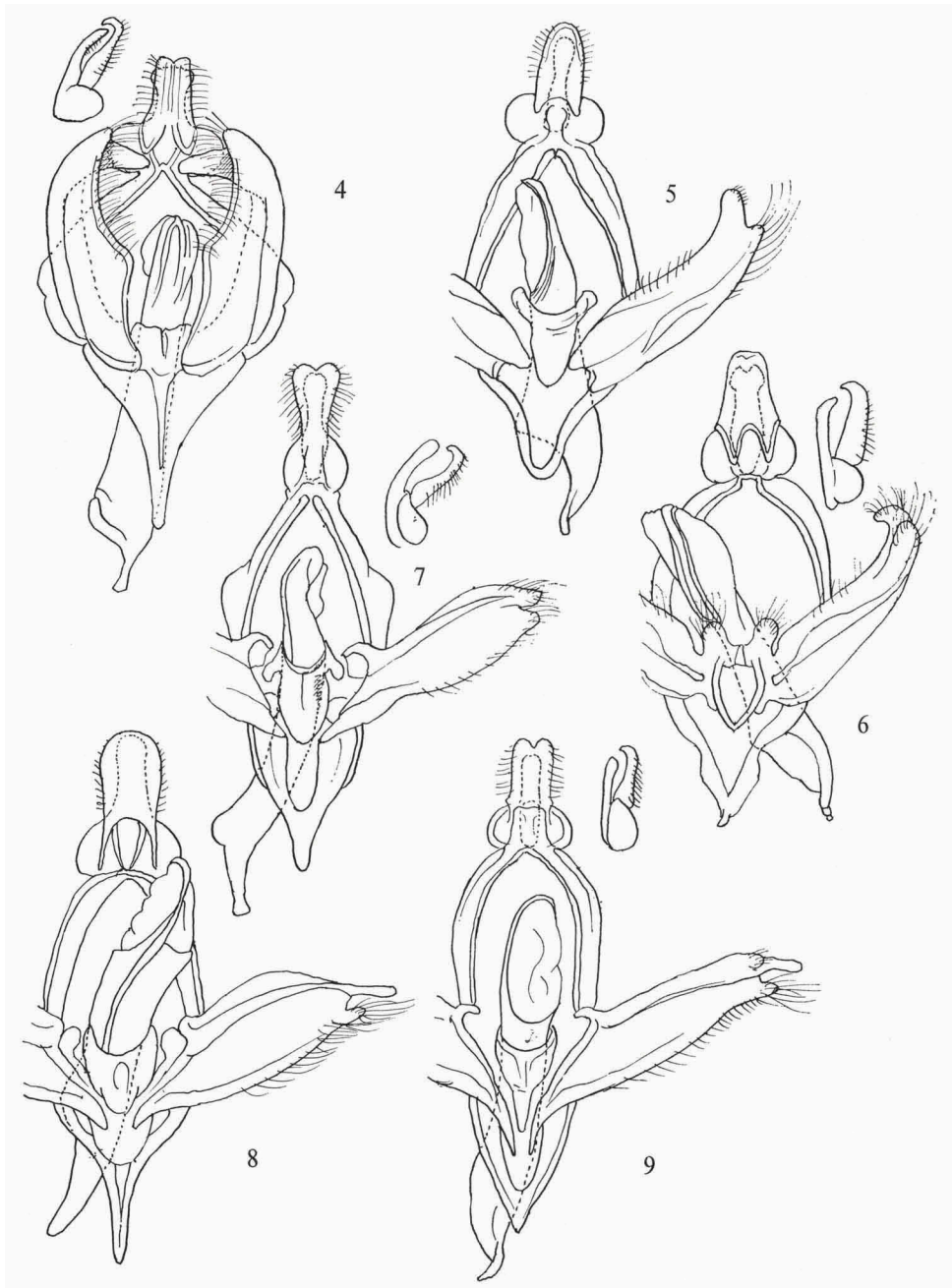


Fig. 4-9. Male genitalia of *Quadricalcarifera*. 4, *Q. testacea* spec. nov.; 5, *Q. quadrivittata* spec. nov.; 6, *Q. poecilochroa* spec. nov.; 7, *Q. nitidula* spec. nov. 8, *Q. nana* spec. nov.; 9, *Q. histrionica* spec. nov.

of lunules; a rather conspicuous triangular blackish brown subapical costal spot, and another, just beyond the outer line, before tornus; subterminal line irregular, of lunules; cilia spotted with white. Hind wing whitish, becoming pale chestnut in the distal third; costa barred with chestnut and pale; cilia paler than in fore wing. Length of the fore wing, 18 mm.

Male genitalia. — Uncus short, broadening and rounded terminally; gnathi slightly longer than the uncus, with the extremity cordiform and hooked. Tegumen broadened in the proximal portion. Terminal processes of the valva short, the costal one squarish; base of the costa with a short curved process. Aedeagus much longer than the valva (about 2.90 mm against 1.95 mm), distinctly arched; fultura inferior oval, with the distal margin concave and bearing at each angle a short downcurved process. Saccus broadly rounded, with a short terminal process. Plate of the eighth sternum elongate, with the sides parallel; proximal process about one third of the total length of the plate, slender; distal margin excised at the middle.

Female. — The sprinkling of green scales rather more abundant and extending to the outer line; sometimes, a more or less extensive white terminal area; spot in interval III conspicuous. Length of the forewing, 20 mm.

Holotype, male: Araucaria Camp, 24.III.1939. Paratypes, males: Top Camp, 22.I.1939, I.1939 (2 specimens); Mist Camp, I.1939 (all L. J. Toxopeus). Allotype, female: Araucaria Camp, 21.III.1939. Paratypes, females: Ibid., same date; Top Camp, I.1939 (2 specimens) (all L. J. Toxopeus); Star Range, 1260 m, Sibil (at light), 6.VII.1959 (Neth. N.G. Exp.).

Quadricalcarifera nana spec. nov. (fig. 8)

Male. — Not unlike *Q. rufotegula*, but much smaller and more uniform rufous brown. Head, palpi and antennal pectinations rufous brown; shaft of the antennae whitish; thorax above and basal abdominal crest rufous brown; underside creamy, legs more or less tinged with rufous brown; abdomen creamy. Fore wing rufous brown, paler and tinged with yellowish in the basal area; an inner and an outer darker brown band, rather indistinct, the outer one outcurved in the interval III; a subterminal line of blackish streaklets; cilia faintly spotted with pale. Hind wing yellowish; costa spotted with rufous brown; cilia spotted with rufous brown and pale. Length of the fore wing, 14 mm.

Male genitalia. — Uncus and gnathi of about equal length, with the sides parallel and the extremity rounded; but the gnathi much broader than the uncus. Tegumen narrow. Costal terminal process of the valva slender, longer than the process of the sacculus. Aedeagus longer than the valva

(1.50 mm against 1.00 mm), very robust, faintly arched; fultura inferior lunulate. Process of the saccus rather slender, of medium length. Sternal plate of the eighth urite with the proximal margin slightly broader than the distal margin, which is excised at the middle; proximal process about one third of the total length of the plate, very slender, faintly bent.

Holotype, male: Top Camp, 22.I.1939. Paratype, male: Ibid., I.1939 (both L. J. Toxopeus).

***Quadricalcarifera histrionica* spec. nov. (fig. 9)**

Male. — Nearest to *Q. purpurascens*, but without green in the terminal area, where that colour is replaced by orange. Head, palpi and antennae deep maroon rufous; patagia orange with the base whitish; thorax above deep rufous brown; underside and legs paler, the latter less so; basal abdominal crest rufous brown; abdomen above and the anal tuft rufous grey; sides of the abdomen pale orange. Ground colour of the fore wing very deep maroon; base with metallic green scales; dorsal area becoming paler distally, and tinged with metallic green and pale orange; inner line represented by obsolete white lunules in the dorsal area; typical markings in cell and on discocellular obscurely edged with whitish; dorsum edged with white; outer line represented by a few lunules; those in intervals I and anal, faintly edged proximally and broadly distally, by deep maroon, and followed by an orange pretornal spot; subterminal line of obscure whitish spots, edged proximally by deep maroon, and preceded in interval IV to costa by greyish and pale orange spots, contrasting very strongly with the deep maroon ground colour; ciliae deep maroon with clear white spots. Hind wing whitish; costa spotted with deep maroon, the very large apical spot reaching vein 2 where it is much paler, and followed on termen by white spots; anal margin pale yellowish orange; cilia checked maroon and white. Underside of fore wing rufous maroon with the dorsal area whitish. Length of the fore wing, 15,5 mm.

Male genitalia. — Uncus short, rather narrow, rounded distally; gnathi distinctly longer than the uncus, free at the extremity. Tegumen very narrow. Valva narrower than in the preceding species of the group; apical process of the costa slender and faintly curved; base with a small hooked process. Aedeagus longer than the valva, very robust, distal portion spoon-shaped; fultura inferior produced proximally, concave distally. Saccus broad, pointed. Sternal plate broad and short, with a short proximal process; distal margin with the middle convex and excised.

Holotype, male, and paratype, male: Mist Camp, I.1939 (L. J. Toxopeus).

Quadricalcarifera didyma spec. nov. (fig. 10)

Male. — Rather like *Q. nitidula* spec. nov., smaller and hardly marked with white. Head and collar whitish, faintly sprinkled with chestnut; gula, periophthalmic region and palpi maroon; last palpal joint creamy; antennae rufous; middle of thorax above dark brown; tegulae mixed whitish and

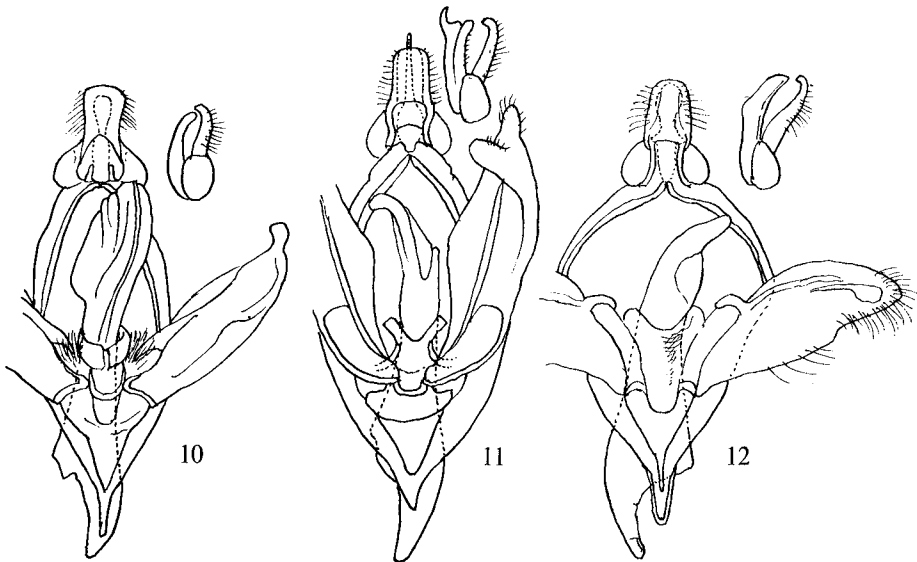


Fig. 10-12. Male genitalia of *Quadricalcarifera*. 10, *Q. didyma* spec. nov.; 11, *Q. famelica* spec. nov.; 12, *Q. trivialis* spec. nov.

maroon; underside and legs pale buff, legs variegated with maroon; basal abdominal crest maroon; abdomen pale brownish buff; anal tuft greyish maroon. Fore wing greyish maroon; base with metallic pale bluish green scales; markings distinct, blackish brown; basal area with a few transverse spots; inner line nearly vertical; the three typical spots faintly edged with whitish; costa whitish in the middle portion, rather strongly spotted with brown; costal area tinged with bluish grey; outer line double, of lunules filled in with bluish grey and with whitish; distinct dark spots in intervals III and VI-VII; subterminal line continuous, irregular, sinuous, faintly edged distally with greyish; cilia darker, spotted with white. Hind wing yellowish, becoming pale orange in the anal area; distal third tinged with maroon, with a paler median line; terminal line brownish; cilia spotted and terminated with whitish. Length of the fore wing, 15.5 mm.

Male genitalia. — Uncus small, club-shaped; gnathi much broader, slightly

broadened distally, curved. Tegumen very narrow. Valva rather narrow; terminal processes small, lobe-shaped. Aedeagus nearly twice as long as the valva, very robust proximally and distally; fultura inferior elongate, lateral parts hairy. Saccus triangular, with a short, slender terminal process. Plate of the eighth sternite broader proximally; proximal process short and slender; distal margin faintly concave at middle, hairy.

Holotype, male: Top Camp, I.1939. Paratype, male: Mist Camp, I.1939 (both L. J. Toxopeus).

Quadricalcarifera famelica spec. nov. (fig. 11)

Male. — A much reduced copy of *Q. trisospylus*. Frons and palpi reddish maroon; antennae and large basal antennal tuft yellowish, the latter mixed with maroon; thorax above mixed whitish and maroon; underside and legs creamy; legs streaked with maroon; abdomen yellowish. Fore wing whitish, strongly sprinkled with maroon; costa whitish in middle portion; inner line double, oblique, blackish in fore half, whitish dorsally; mark of the discocellular whitish, very obsolete; outer line of whitish lunules, followed by dark grey rounded spots, more or less outcurved, but without the conspicuous distal position of the spot in the interval III; terminal line of blackish bars; cilia darker brown, with whitish streaklets. Hind wing white with a faint yellowish tinge; costa spotted with brown; cilia brownish white in the apical area, faintly spotted with brownish elsewhere. Length of the fore wing, 14 mm.

Male genitalia. — Uncus short and rather broad, differing from the structure met with elsewhere by a short dorso-terminal process, slightly curved and directed apically; gnathi as long as the uncus, hardly broader, upcurved terminally. Tegumen very narrow. Valva relatively broad; terminal process of the sacculus broadly triangular, like in *Q. testacea* spec. nov. Aedeagus longer than the valva (1.70 mm against 1.10 mm), strongly compressed; distal extremity produced into a slender curved process; fultura inferior bearing at each distal angle a short squarish diverging process. Saccus short, triangular. Plate of the eighth sternite with the proximal margin produced at middle, bearing a short, slender process; distal margin with an angular median excision.

Holotype, male: Mist Camp, I.1939 (L. J. Toxopeus).

Quadricalcarifera trivia spec. nov. (fig. 12)

Male. — Resembles *Q. nitidula* spec. nov., but much smaller and paler. Frons and palpi maroon rufous; last palpal joint whitish; antennae rufous brown with the basal tuft whitish; thorax above and basal abdominal crest

mixed chestnut and white; underside and legs creamy; fore legs streaked with maroon; abdomen greyish buff; anal tuft tinged with chestnut. Fore wing whitish, thickly sprinkled with chestnut; a blackish brown basal streak; inner line greyish, indistinct, outcurved; costa spotted with chestnut; the three typical marks of the ground colour, rather broadly edged with white; discal area below cell darker; outer line double, of lunules edged with white, and with a few olive green scales; subterminal line irregular, composed of lines and lunules; cilia darker, spotted with white. Hind wing whitish, faintly tinged with chestnut distally; costa barred with pale chestnut; preapical spot large, dark chestnut, divided by a greyish line; terminal line rufous brown; cilia white, indistinctly spotted with brownish at the base. Length of the fore wing, 17 mm.

Male genitalia. — Rather different from those in *Q. nitidula*. Uncus hardly broadened distally; gnathi broader at the base, then narrowing and rounded terminally. Tegumen uniformly narrow. Valva much broader, with a subterminal subcostal ridge-shaped process. Aedeagus relatively shorter (2.65 mm, against the valva 1.80 mm), very robust, arched terminally; fulcra inferior with the distal angles produced into rounded lobes. Sternal plate of the eighth urite broader proximally.

Holotype, male: Top Camp, 25.I.1939. Paratype, male (very worn): Ibid., 22.I.1939 (both L. J. Toxopeus).

Vaneckeia Kiriakoff

Vaneckeia germana (Rothschild)

Stauropus germana Rothschild, 1917, Novit. Zool. **24**: 244.

Vaneckeia ovalis (van Eecke) Kiriakoff, 1967, Tijdschr. Entom. **110**: 49, fig. 27.

Male: Bewani Hills, Mt. Hager, 1200 m, 17.II.1938. Female: Ibid., Ampas, 21.XI.1938 (both W. Stüber).

In the female, the colours are more contrasting; the disc is more uniformly sepia coloured; the white spot before the subterminal line much more distinct.

Stauropus germana Rothschild and *S. ovalis* van Eecke have proved to be conspecific. Van Eecke's specific name (1929) falls accordingly before that given by Rothschild (1917).

Stauropus Germar

Stauropus pratti Bethune-Baker

Stauropus pratti Bethune-Baker, 1904, Novit. Zool. **11**: 380, pl. 4 fig. 18.

Males: Araucaria Camp, 10.III.1939, 19.III.1939, 22.III.1939 (L. J. Toxopeus). Female: Bewani Hills, Ampas, 23.XII.1938 (W. Stüber).

Stauropis affinis Rothschild

Stauropis affinis Rothschild, 1917, Novit. Zool. **24**: 245.

Male: Mist Camp, I.1939 (L. J. Toxopeus).

Stauropis evanescens Gaede

Stauropis evanescens Gaede in Seitz, 1930, Grossschmett. Erde **10**: 627, pl. 83c.

Males: Araucaria Camp, 18.III.1939 (L. J. Toxopeus); Hollandia, 31.III.1946 (R. Straatman); Ibid., 26.XI.1954 (L. D. Brongersma & L. B. Holthuis).

Cascera Walker**Cascera callima** Bethune-Baker

Cascera callima Bethune-Baker, 1916, Ann. Mag. Nat. Hist. (8) **17**: 384.

Males: Mist Camp, I.1939 (4 specimens); Moss Forest Camp, 9.X-5.XI.1938 (8 specimens); Ibèlè Camp, XI-XII.1938 (3 specimens); Top Camp, I.1939 (all L. J. Toxopeus). Females: Mist Camp, I.1939 (5 specimens); Ibèlè Camp, XI-XII.1938; Top Camp, I.1939 (all L. J. Toxopeus).

Cascera archboldiana spec. nov. (fig. 13)

Male. — Nearest to *C. callima*, differing in the male genitalia, and also in the presence of a white discal spot. Head, collar and tegulae mixed maroon and silvery; palpi rufous brown; antennae paler rufous brown; underside of thorax and legs buff, strongly tinged with rufous; tarsi ringed with dark and pale; basal abdominal crest rufous; abdomen greyish brown; underside tinged with rufous; anal tuft orange, with the tip pale. Ground colour of the fore wing pale chocolate; subbasal line whitish, wavy, margined distally by a series of black spots; a subbasal subcellular blotch of dark maroon; inner line double, nearly vertical, composed of lunules and/or spots; discal field traversed by obscure rufous brown lines, with a white mark at the base of interval II; outer line of maroon lunules, edged distally with yellowish and with blackish; veins blackish in the distal portion; space between the outer and the subterminal lines dark maroon in the dorsal portion, to vein 3; veins with a row of black markings; subterminal line yellowish, irregular, broken into spots between the interval III and the costa; these spots edged distally by maroon triangles; spots in the interval V to costa preceded by a dark maroon shadow; cilia brown with a yellowish median line; ends of veins yellowish. Hind wing pale rufous, still paler and tinged with yellowish at the base; an indistinct yellowish discal line; cilia with pale basal and median lines. Length of the fore wing, 18 to 19 mm.

Male genitalia. — Somewhat aberrant, owing to the different shape of the uncus. Latter with the terminal fork very short, with the prongs directed inwards; subuncus triangular; gnathi with the base broad, then narrow, upcurved, with a small median process. Tegumen very broad. Valva elongate and narrow, with a leaf-shaped basal and slender rod-like median processes;

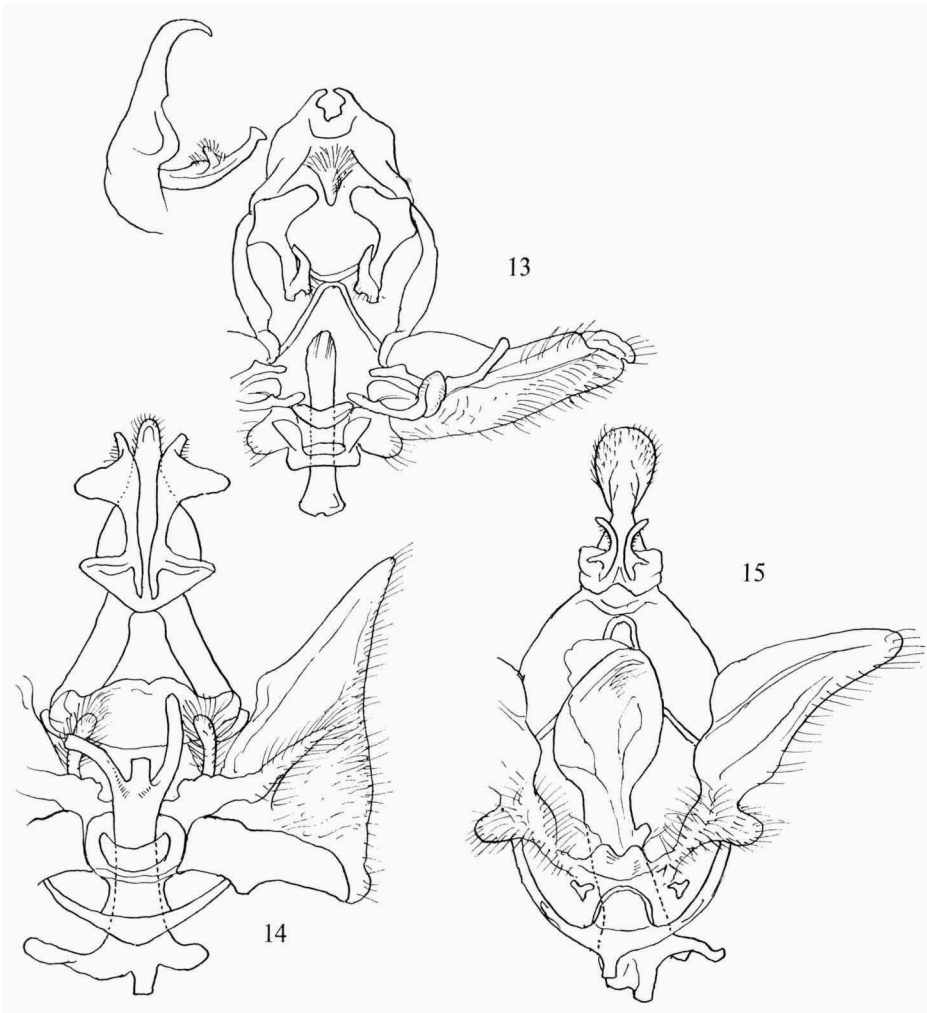


Fig. 13-15. Male genitalia. 13, *Cascera archboldiana* spec. nov.; 14, *Sawia undulata* spec. nov.; 15, *Themerastis acrobela* Turner.

basal lobe of the sacculus small. Aedeagus shorter than the valva (2.20 mm against 3.20 mm), rather slender; fultura inferior more or less lunulate.

Saccus very short. Plate of the eighth sternite rounded distally, with a rather broad median excision.

Female. — Rather different, mostly paler and greyer; ground colour pale yellowish, sprinkled with maroon; a few specimens, however, are as dark as the females of *C. callima*, but they can easily be distinguished by the white discal spot; dark subbasal and postdiscal markings very well developed and contrasting strongly with the rather conspicuous white discal spot; subterminal dots white instead of yellowish. Hind wing also greyer, mostly with a distinct pale band from the tornus to the vein 4 or 5. Size larger; length of the fore wing, 18.5 to 22 mm.

Holotype, male: Moss Forest Camp, 9.X-5.XI.1938. Paratypes, males: Ibid. (5 specimens); Mist Camp, I.1939; Ibèlè Camp, XI-XII.1939. Allotype, female: Moss Forest Camp, 9.X-5.XI.1938. Paratypes, females: Ibid. (3 specimens); Mist Camp, I.1939 (2 specimens); Ibèlè Camp, XI-XII.1938 (3 specimens); Top Camp, I.1939 (all L. J. Toxopeus).

Cascera irrorata Rothschild

Cascera irrorata Rothschild, 1917, Novit. Zool. **24**: 248.

Males: Bewani Hills, Keerom, 1000 m, 28.X.1938 (W. Stüber).

Cascera marginata Rothschild

Cascera marginata Rothschild, 1917, Novit. Zool. **24**: 247, pl. 7 fig. 3.

Males: Star Range, Bivak 39a, 1500 m, 6.VI.1959, 27.VI.1959 (Neth. N.G. Exp.); Bewani Hills, Ampas, 16.I.1938 (W. Stüber); Ibid., Mt. Hager, 1200 m, 17.II.1939 (W. Stüber); Ibid., Keerom, 1000 m, 28.X.1938 (W. Stüber); Star Range, Sibil, 1260 m (at light), 9.VI.1959 (Neth. N.G. Exp.); Mist Camp, I.1939 (2 specimens); Araucaria Camp, 10.III.1939, 21.III.1939 (all L. J. Toxopeus). Females: Schouten Is., Biak, 30.X.1946 (R. Straatman); Star Range, Bivak 39a, 1500 m, 14.VII.1959; Ibid., Ok Sibil, 1260 m, 2.VII.1959, 5.VII.1959 (all Neth. N.G. Exp.); Araucaria Camp, 25.III.1939; Sigi Camp, II.1939; Patrouille 20-26, 23.X.1939 (all L. J. Toxopeus).

Cascera perscripta Rothschild

Cascera perscripta Rothschild, 1917, Novit. Zool. **24**: 248, pl. 6 fig. 17.

Males: Bewani Hills, Keerom, 1000 m, 28.X.1938 (W. Stüber); Araucaria Camp, 22.III.1939; Moss Forest Camp, 9.X-5.XI.1938 (both L. J. Toxopeus). Females: Mist Camp, I.1939; Ibèlè Camp, XI-XII.1938 (2 specimens) (all L. J. Toxopeus).

Cascera violetta Gaede

Cascera violetta Gaede in Seitz, 1930, Grossschmett. Erde **10**: 633, pl. 84c.

Males: Ibèlè Camp, XI-XII.1938 (3 specimens) (L. J. Toxopeus).

Gaede (in Seitz, 1930, Grossschmett. Erde **10**:633) very pertinently remarked that only the examination of the genitalia could bring about a specific discrimination within the genus *Cascera*. The present writer has examined the male genitalia of all the described species and of a few so-called "varieties" of *Cascera*. These structures are very homogenous in a general way; there are, however, rather numerous differences, chiefly in the shape of the uncus and of the gnathi, and in the shape and number of the valval harpes. The following list should offer at least some help for the identification of the *Cascera*-species.

Cascera violetta Gaede. — Differs from all the other species by the narrow uncus, and the valva broadening at the tip.

C. perscripta Rothschild. — Gnathi very broad and compact; harpes rather slender.

C. latifasciata Gaede. — Gnathi narrow, with two divergent processes; valva with a single harpe.

C. flavovirens Rothschild. — Gnathi as in *C. latifasciata*; valva with three very short harpes.

C. albiscripta Rothschild. — Uncus short, not forked; gnathi broadened, then narrowed; valva with a single harpe.

C. marginata Rothschild. — Very similar to *C. latifasciata*, but gnathi broader and valva with a second, lobe-shaped harpe.

C. callima Bethune-Baker. — Prongs of the uncus relatively short; lobes of the gnathi very slender; valva with a single harpe.

C. archboldiana spec. nov. — Prongs of the uncus very short; gnathi long, upcurved, with very short processes; valva with two harpes, the basal one lobe-shaped, the distal digitiform.

C. olivacea Rothschild. — Gnathi shaped like pincers of a crab; valva with four harpes.

C. variegata Rothschild. — Gnathi complicated, with a crescent-shaped ventral process; valva with one long and two short harpes.

C. irrorata Rothschild (= *pallida* Rothschild). — This is a good species, not a form of *C. muscosa*. Gnathi slender, curiously twisted, with a C-shaped terminal process; valva with three small harpes.

C. muscosa Walker. — Fork of the uncus very small; gnathi broad, curved; valva with the harpes ill defined.

C. bella Bethune-Baker. — Fork of the uncus long; gnathi with the basis very slender, like in *C. irrorata*; valva with two small and one longer harpe.

C. amydra Turner. — Belongs to the genus *Archigargetta*.

Omichlis Hampson

Omichlis plagiosa Joicey & Talbot

Omichlis plagiosa Joicey & Talbot, 1917, Ann. Mag. Nat. Hist. (8) **20**: 62, pl. 2 fig. 3.

Males: Mist Camp, I.1939 (L. J. Toxopeus); Star Range, Bivak 39a, 1500 m, 6.VII.1959 (Neth. N.G. Exp.) (2 specimens). Female: Star Range, Bivak 39a, 1500 m, 6.VII.1959 (Neth. N.G. Exp.).

Omichlis lineata Bethune-Baker

Omichlis lineata Bethune-Baker, 1908, Novit. Zool. **15**: 178.

Male: Star Range, 1260 m, Sibil (at light), 1.VII.1959 (Neth. N.G. Exp.)

Omichlis dinawa Bethune-Baker

Omichlis dinawa Bethune-Baker, 1904, Novit. Zool. **11**: 376, pl. 5 fig. 3.

Male: Araucaria Camp, 11.III.1939 (L. J. Toxopeus).

Omichlis renata (Gaede)

Omichlis rufotincta var. *renata* Gaede in Seitz, 1930, Grossschmett. Erde **10**: 610 pl. 79g.

Males: Rattan Camp, II-III.1939 (L. J. Toxopeus) (2 specimens); Star Range, Bivak 39a, 1500 m, 1.VII.1959 (Neth. N.G. Exp.). Females: Star Range, Bivak 39a, 1500 m, 6.VII.1959; Star Range, 1260 m, Sibil, 6.V.1959 (both Neth. N.G. Exp.).

Originally described from New Britain.

Omichlis rufofasciata Bethune-Baker

Omichlis rufofasciata Bethune-Baker, 1904, Novit. Zool. **11**: 377, pl. 6 fig. 17.

Males: Araucaria Camp, 10.III.1939 (L. J. Toxopeus); Bewani Hills, Ampas, 100 m, 16.I.1939 (W. Stüber).

Omichlis albidilinea Gaede

Omichlis albidilinea Gaede in Seitz, 1930, Grossschmett. Erde **10**: 611, pl. 79g.

Male: Moss Forest Camp, 9.X-5.XI.1938 (L. J. Toxopeus).

Omichlis leucosticta Joicey & Talbot

Omichlis leucosticta Joicey & Talbot, 1917, Ann. Mag. Nat. Hist. (8) **20**: 62, pl. 2 fig. 4.

Male: Bewani Hills, Ampas, 16.I.1939 (W. Stüber).

Omichlis erythra Bethune-Baker

Omichlis erythra Bethune-Baker, 1916, Ann. Mag. Nat. Hist. (8) **17**: 383.

Male: Mist Camp, I.1939 (L. J. Toxopeus).

Kakostauropus Gaede**Kakostauropus glaucoviridis** (Rothschild)

Stauropus glaucoviridis Rothschild, 1917, Novit. Zool. **24**: 242, pl. 3 fig. 6.

Female: Bewani Hills, Keerom, 1000 m, 28.X.1938 (W. Stüber).

Antennae as in male. Fore wing slightly narrower. Otherwise similar to male. Length of the fore wing, 20 mm.

Sawia gen. nov.

Proboscis rudimentary. Antennae of the male denticulate-ciliate, of the female filiform. Palpi rather slender, of medium length, upcurved; last joint minute. Hind tibiae with two pairs of spurs. Base of the abdomen with a spreading crest. Fore wing shaped as in other genera of the *Chadisra* complex. Venation: vein 2 from $\frac{3}{4}$ of the cell; 3 and 4 from a point; 5 from the middle of the discocellular; areole long (half distance between angle of cell and apex) and very narrow; vein 6 from areole, before middle; 7, 8 + 9 and 10 from extremity of the areole. Hind wing: vein 2 from $\frac{2}{3}$ of the cell; 3 and 4 very much approximated; 5 from middle of the discocellular; 6 and 7 stalked for $\frac{1}{4}$; 8 approximated to the cell for $\frac{3}{4}$ of the latter.

Male genitalia. — Uncus with the base broad, narrowing distally, with the lateral sides somewhat concave; extremity rounded; gnathi very broad at the base, then very slender, and with a broad terminal plate, produced into a hooked process at the upper angle. Tegumen rather narrow. Valva relatively narrow at base, then broadening and nearly triangular; costa with a small hairy basal process and with the apex produced and pointed; valvule with a hairy ridge; sacculus broadly sclerotized. Aedeagus slightly longer than the valva, robust, broadened proximally, with two long and one very short terminal process; futura inferior rather weakly developed. Saccus short, rounded. Plate of the eighth sternite broader proximally; all the four angles produced; distal margin excised in middle.

This is one of the numerous genera resulting from the splitting of the "genus" *Chadisra* Walker.

Type of the genus. — *Sawia undulata* spec. nov.

Sawia undulata spec. nov. (fig. 14)

Male. — Head, palpi, thorax and legs pale ochreous yellow; palpi brown above; antennal shaft rufous brown, pectinations pale ochreous yellow; fore legs streaked with brown below; tarsi ringed with brown and yellowish; crest at the base of the abdomen dark brown at the extreme base, rufous grey elsewhere; abdomen rufous grey above, yellowish below. Basal third of the fore wing pale ochreous yellow, streaked with rufous and with dark brown; the yellow area limited distally by the inner line, which runs from $\frac{1}{3}$ of costa, first obliquely outwards and slightly dentate, then sharply angled on vein 2, and strongly oblique inwards to reach the dorsum at $\frac{1}{4}$; it is margined proximally by a dark brown shadow, with a few olive green scales; discocellular streak pale yellowish with a black line; space between inner and outer lines brownish olive in fore two thirds, pale ochreous yellow, mixed with brownish olive in dorsal third; an ill defined, dentate brown median band; outer line from two thirds of costa, strongly dentate, incurved in intervals V and VI, reaching the dorsum at two thirds, narrowly and indistinctly edged distally with pale yellowish; space between outer and subterminal lines rufous brown, tinged with olive in intervals III, VI and VII; costal area darker both proximally and distally, and with a few black streaks; dorsal area also darker and streaked with black; subterminal line pale yellowish, much approximated to outer line above dorsum; terminal area chocolate brown proximally and on the veins; intervals occupied distally by yellowish spots with black centres; cilia rufous brown with pale extremities, spotted with brown, and with minute white dots on the extremities of veins. Hind wing pale yellowish; outer half greyish umber; anal mark yellowish with two black dots and a black angular mark above; cilia as in the fore wing, but paler. Length of the fore wing, 20 mm.

Male genitalia, see diagnosis of genus.

Female. — Body nearly uniform light chocolate grey; fore wing on the whole lighter coloured and less contrasting, without the yellow tones, except in the discal space; general colour light chocolate grey; space between inner and outer lines tinged with yellowish, and becoming nearly pure yellowish in dorsal area; dark markings before the apex and before the tornus as dark as in male, and therefore more conspicuous. Hind wing light chocolate grey, except the extreme base and the anal margin. Length of the fore wing, 22 mm.

Holotype, male: Hollandia, 1.IV.1946 (R. Straatman). Allotype, female: Ibid, 17.XI.1954 (L. D. Brongersma & L. B. Holthuis).

In the British Museum (Natural History) there is a male of this species labelled Sawia [hence the generic name], Dutch New Guinea, 21.VI.1937 (W. Stüber). The genitalia show no differences whatever.

Themerastis Turner

Themerastis acrobela Turner (fig. 15)

Themerastis acrobela Turner, 1922, Proc. Linn. Soc. New South Wales 47: 383.

Turner's type (from Cape York, Queensland) is a female. After examining the type specimen, obligingly lent by the National Museum of Victoria, the author came to the conclusion that the two specimens mentioned below are conspecific with it. A male neallotype is therefore described.

Male. — Antennae finely denticulate. Similar to the female, but much less contrastingly coloured; wing pattern as in female, but the difference between light and dark areas much less marked, the former being just a shade lighter and greyer than the latter, which are greyish chocolate brown. Hind wing whitish, with a pale orange shade, more pronounced in the anal area. Size smaller: length of the fore wing 18 mm, against 22 mm in Turner's type.

Male genitalia. — Uncus short, with the extremity broadened and rounded; gnathi short, slender, curved. Tegumen moderately broad. Valva rather narrow, especially distally, with the apex rounded; sacculus with a lobe-shaped process near the base. Aedeagus shorter than the valva, slender in the median portion, much broader basally, and with the distal portion very strongly broadened and flattened; narrow portion bearing a small lateral process; fultura inferior concave distally. Saccus very short, with a short median process. Sternal plate of the eighth urite short and broad, with the distal margin broader, concave and bearing minute denticulations.

Neallotype, male: Schouten Is., Biak, 1.VII.1946 (R. Straatman). Female: Hollandia, 1.IV.1946 (R. Straatman).

There is a similar male in the British Museum (Natural History) from Buru: its genitalia offer no differences.

Teleclita Turner

Teleclita cinnamomea (Rothschild)

Pheosia strigata var. *cinnamomea* Rothschild, 1917, Novit. Zool. 24: 250, pl. 7 fig. 6.

Male: Hollandia, 31.III.1946 (R. Straatman).

Pheressaces Turner**Pheressaces cycnoptera** (Lower)

Notodonta cycnoptera Lower, 1894, Trans. R. Soc. South Australia: 78

Males: Bewani Hills, Om, 22.II.1934 (W. Stüber) (2 specimens).

Allata Walker**Allata affinis** (Rothschild)

Spatalia costalis var. *affinis* Rothschild, 1917, Novit. Zool. **24**: 245, pl. 8 fig. 1 (female).

Allata novaeguineae Kiriakoff, 1967, Tijdschr. Entom **110**: 62, fig. 18 (male).

Male: Schouten Is., Biak, 29.VII.1946 (R. Straatman). Female: Ibid., 13.VII.1946 (R. Straatman).

Spatalia costalis var. *affinis* Rothschild proved to be the female of *Allata novaeguineae* Kiriakoff, in the same way as *Pheosia costalis* Moore was found to be the female of *Allata argentifera* Walker. There is a good deal of sexual dimorphism in the genus *Allata*. The describer of *A. novaeguineae* had at the time no females.

Genus **Clostera** Samouelle**Clostera rubida** (Druce)

Pygaera rubida Druce, 1901, Ann. Mag. Nat. Hist. (7) **7**: 78.

Male: Mist Camp, I.1939 (L. J. Toxopeus). Female: Schouten Is., Biak, 28.VI.1946 (R. Straatman).