

SOME ACRIDIDAE FROM THE SOLOMON ISLANDS  
(ORTHOPTERA).

By

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The following notes and descriptions are based on the collections made during the last few years by Messrs. H. T. PAGDEN and R. A. LEVER. The specimens, apart from some duplicates, have been presented to the British Museum (Natural History).

The list of Acrididae known from the Solomon Islands is as yet very short, but the fact that there exist in the islands several endemic genera, each with a number of species and subspecies, suggests that further careful collecting on each of the islands should result in a considerable number of new discoveries. Fortunately, Mr. LEVER is still continuing his work in the islands, and we may look forward to a complete list of their fauna.

Subfamily Oedipodinae.

*Heteropternis obscurella* (BLANCHARD, 1853).

Guadalcanal Island, Lunga, coconut, 20.XII.1933; do., *Imperata*, 20-21.XII.1933; Boregi river, 14.XII.1934. — Kolombangara, Karikanga, at night, 6.VI.1934. — San Cristobal Island, Arosi, V.1935.

*Gastrimargus marmoratus* (THUNBERG, 1815).

Tulagi Island, ridge, 13.VIII.1933; lalang on ridge, 29.I.1935; sasapi cutting, 16.XII.1934; Guadalcanal Island, I.1932.

*Locusta migratoria* (L.) sbsp.

Guadalcanal Island, Lunga, *Imperata*, 18.XII.1933; 21.XII.1933. The subspecies of the Migratory Locust occurring on various islands of Oceania and in Australia is awaiting its systematic study.

Subfamily Pyrgomorphinae.

*Atractomorpha* sp.

Several specimens from three various islands cannot be determined specifically without a thorough revision of this difficult genus.

## Subfamily Catantopinae.

*Gesonia sanguinolenta* KRAUSS 1902.

1898. *Gesonia sanguinolenta*, BRUNNER VON WATTENWYL, Abh. Senckenberg. naturwiss. Ges., XXIV, p. 198 (*nomen nudum!*).

1902. *Gesonia sanguinolenta*, KRAUSS in SEMON: Zool. Forschungsreise in Australien und Mal. Archipel, p. 760.

Guadalcanal Isl., Lavoro, on taro, 18.II.1934. — Malaita Isl., Auki, *Colocasia* leaf, 18.X.1935. — Nggela Isl., Maliali, *Colocasia*, 23.XI.1933. — Shortlands, Morgusaia, *Colocasia*, 26.IV.1934. — Sa. Isabel Isl., 2.III.1934.

BRUNNER VON WATTENWYL has only mentioned this name in a list of species known to him from the Halmahera Island, but never described the species, and his name remains *nomen nudum*. KRAUSS mentions that *G. sanguinolenta* differs from *G. punctifrons* St. in being more brightly coloured, with blood-red hind tibiae and sometimes orange-red hind femora, and he suggests that it is merely a "Lokalvarietät". Although this description is exceedingly meagre and may be applicable to more than one species, it is sufficient to make the name valid, and the Halmahera specimen (or specimens) in the BRUNNER collection, which has been studied by KRAUSS also, should be regarded as the type.

The specimens from the Solomon Islands do not appear to differ from those of New Guinea in the British Museum collection.

*Oxya gavis* (WALKER, 1870).

Guadalcanal Isl., Doma; Kookom, 1931; Lunga estate, undergrowth, 9.VII.1933. — Tulagi Isl., VI.1933; lalang on ridge, 29.I.1935; ridge, 30.VII, 13.VIII, 2.IX.1933. — Nggela Isl., Maliali, 23.XI.1933. — Sa. Isabel Isl. — Russell Isl., Somata, 22.II.1933. — Vella Lavella Isl., Suanatali, Dobeli, 24.IX.1933.

Genus *Bumacris* WILLEMSE 1931.

1931. *Bumacris*, WILLEMSE, Intern. Entom. Ztschr. Guben, 1931, No. 34, p. 348.

1935. *Bumacris*, WILLEMSE, Stylops, 4, p. 165.

In his first description of the genus WILLEMSE committed an error in describing the apical armature of hind tibiae. This he himself has corrected in his enlarged re-description, but in neither case has he discussed the systematic position of the genus. In my opinion, *Bumacris* should be placed quite near to *Tauchira* STÅL, with which it has many features in common, and more particularly the acute margins of the hind tibiae which are clearly expanded in the apical portion. The difference consists mainly in the structure of the prosternal tubercle which is simply conical in *Bumacris*, and strongly modified in *Tauchira*.

Three species have been described by WILLEMSE (*ll.cc.*), all from the Solomon Islands, and I have to add a fourth, strikingly different from the

others. Further studies on more abundant material, may show that some of them are only subspecies, but it is practically certain that collecting in various islands will increase the number of species and subspecies.

***Bumacris leverii*, sp. n.**

♀. Antennae much longer than head and pronotum together.

Face distinctly oblique; coarsely but not deeply punctured. Frontal ridge not strongly raised, shallowly sulcate. Head above not punctured.

Pronotum relatively long, distinctly gibbose in the prozona which is  $\frac{5}{8}$  the length of the whole pronotum. Transverse sulci deep, distinctly projecting forward in the middle. Posterior angle obtuse. Surface with coarse honey-combe punctures. Lateral lobe distinctly longer than deep; coarsely punctured except for two smooth spots in the prozona.

Elytra reaching the base of hind knees.

Antennae black, fading to blackish-green basally. Face dark yellow; a large triangular spot above the clypeus and the frontal ridge black. Cheeks dark-yellow. Head above dark yellow, with a broad triangular median stripe and broad postocular fasciae black. Pronotum dark yellow, with a broad median stripe and more than the upper half of lateral lobes black. Pleurae dark-yellow below, black above. Sternum and abdomen below dirty-yellow and black. All femora reddish-black; posterior ones with a pale preapical ring and black knees. All tibiae bluish-black. Elytra of beautiful metallic-azure colour, with a greenish-yellow streak along the ulnar vein. Wings azure.

Length of body 36; pronotum 9; elytra 23; hind femur 22 mm.

Isabel Island, Tatamba, 30.VI.1935, on *Calamus* leaf, 1 ♀.

The striking striated pattern and the beautiful azure colour of elytra and wings make this species very easily recognisable.

Genus *Opiptacris* WALKER, 1870.

1870. *Opiptacris* WALKER, Cat. Derm. Salt. Brit. Mus., IV, p. 650.

1931. *Salomonacris*, WILLEMSE, Intern. Entom. Zeitschr. Guben, No. 33, p. 336 (*syn. nov.*).

In describing *Salomonacris*, WILLEMSE has pointed out that it differs from *Cranaë* STÅL, 1878, by the complete absence of elytra and wings. In other papers he has described under *Cranaë* two species, *pictipennis* (Buru [Boeroe] Island; Treubia, VII, Suppl., 1932, p. 379) and *signata* (Solomon Islands, Stylops, 4, 1935, p. 167), which differ from other known species of *Cranaë* by possessing minute scale-like elytra, without any trace of veins, and no wings. This is the condition observed in the only known species of *Opiptacris* (*O. hilaris* WALKER, l.c.; New Hebrides). We have, therefore, three very closely allied groups, as follows:—

1. *Cranaë*. Elytra more or less abbreviated, but with distinct venation; wings present.

2. *Opiptacris*. Elytra minute, scale-like, without any trace of veins; no wings.

3. *Salomonacris*. No elytra; no wings.

While the difference between typical *Cranaë* and *Opiptacris* is very clear and can be given generic value, the latter genus cannot be definitely separated from *Salomonacris* which presents merely an extreme case of the reduction of flight organs as observed in *Opiptacris*. I think, therefore, that *Salomonacris* should be united with *Opiptacris*, and it would comprise the following known species:

1. *O. hilaris*, WALKER, 1870. — New Hebrides.

2. *O. pictipennis* (WILLEMSE, 1932). — Buru (Boeroe) Island.

3. *O. signata* (WILLEMSE, 1935). — Malaita, Solomon Islands.

3a. *O. signata tulagii*, sbsp.n. (see below). — Tulagi, Solomon Islands.

4. *O. ruficeps* (WILLEMSE, 1931). — Malaita, Solomon Islands.

5. *O. atriceps* (WILLEMSE, 1931). — Malaita, Solomon Islands.

The last two species in the list may represent merely the opposite sexes of the same species, as suggested by WILLEMSE himself.

#### ***Opiptacris signata tulagii*, sbsp. n.**

Closely resembles the typical *signata* described from the Malaita island, but differs from it in the larger head and the colouration.

Antennae black, except the red basal joint. Head sealing-wax red, except the apex and sides of the fastigium and a triangular occipital stripe, which are black. Face red and yellow. Mouth-parts yellow, with black pattern. Pronotum black, with three dark-red spots on each side of prozonal disc; lateral lobe with the anterior angle yellow and the posterior red. Elytra minute, red. Legs black; posterior femur with a reddish-yellow preapical spot above.

Tulagi Island, 16.XII.34, 2 ♀♀ (one the type); 20.XII.34, 1 ♀; 26.I.35, 1 ♀. On *Pandanus*.

The Tulagi insects differ from the typical *signata* of the Malaita island by the different distribution of the red colour and by its shade, since in *signata* it is orange-red. There is also a striking difference in the size, particularly the width, of the head. This may be even a specific character, but one must study more material to decide on this point.

#### ***Modernacris callosa*, sp. n.**

♀ Antennae a little longer than head and pronotum together, with broad alternating yellow and brown rings.

Face strongly oblique; dark castaneous, covered with dense ivory-yellow callous tubercles. Frontal ridge represented by a narrow sulcus included between callous raised margins. Head above yellowish-brown, with indefinite brownish pattern; surface with scattered fine punctures; a smooth median longitudinal line. Eyes bulging sideways. Cheeks brownish-yellow, with a few pale callosities in the lower part.

Pronotum dirty olivaceous-brown, densely and rather coarsely punctured on the disc. Lateral lobes much longer than deep, with scattered and not very distinct, pale callosities, lower margin very weakly sinuate; lower posterior angle obliquely truncate. Posterior margin of pronotum narrowly black.

Abdomen yellowish-brown, with an interrupted blackish median line. Dorsal surface of mesonotum, metanotum and abdominal tergites in fairly dense punctures. Sternum and abdomen below brownish-black, shiny.

Anterior and middle legs yellowish-brown. Posterior femur of the same general colour, not marked on the outer side, darker on the inner side; lower sulcus violet-black. Posterior tibia light-red; base below, and apex on the inner side, blackened. Posterior tarsus very light reddish, fading to pale-yellow apically.

Length of body 36; pronotum 5; hind femur 17 mm.

Malaita Island, Su'u, jungle, 16.VIII.1934, 1 ♀.

There are two species known in the genus, both from the Solomon Islands. They are *M. controversa* WILLEMSE (Intern. Entom. Ztschr. Guben, 1931, No. 33, p. 334) from the New Georgia island; and *M. simplex* WILLEMSE (Stylops, 4, 1935, p. 168) from the Savo island. The new species is more similar to *M. controversa* in its more slender general habitus, while *M. simplex* is a sturdier insect with definitely shorter pronotum. The presence of callosities on the face and pronotal lobes is a character separating the new species from the other two. It is not impossible that *M. callosa* is only a subspecies of *M. controversa*, but both species are known from single female specimens. In any case, it appears that the genus is represented on various islands either by different species, or subspecies.

*Catantops angustifrons* (WALKER, 1870).

Guadalcanal Isl., Lunga, XI.1931; do., undergrowth, 9.VII.1933; Kaukau, 22.VIII.1934; Lunga, *Imperata*, 21.XII.1933. — Tulagi Isl., *lalang* on ridge, 29.I.1935. — Ganongal Isl., Emu Harbour, at light, 29.V.1934. — Vella Lavella Isl., Liani Estate, Dobeli, 23.IX.1933. — Nggela Isl., Maliali, snake beans, 23.XI.1933. — Savo Isl., 25.II.1934. — Russell Isl., Somata, 22.II.1934.

*Valanga conspersa salomonensis* SJÖSTEDT, 1931.

Tulagi Isl., VI.1933; 14.VII.1934, on *Hibiscus*; 25.VII.1934; 19.I.1934; 2.VIII.1934; 16.XII.1934; 29.I.1935; 6.II.1935. — Kulombongara, Kariftana Estate, 2.X.1933. — Gavutu, at light, 20.VI.1933. — New Georgia Isl., Segi, Marovo, 7.V.1934. — Vella Lavella Isl., Ruaravai, on *Cocos*, 1.VI.1934. — Sava Isl., on coconuts, 30.X.1933. — Malaita Isl., Mukka, 23.X.1934; Su'u, 24.V.1934. — Russell Isl., Yandina, 16.II.1934.

General colouration not always green as stated in the original description, but often more or less brownish. Hind tibiae pale dirty-reddish above and dirty-olivaceous below; their spines yellow with black tips, not whitish as

described (probably from insufficiently well preserved specimens). There are no stable differences between specimens from different islands, except those from Malaita which bear heavier dark markings than usual.

*Austracris guttulosa illepida* (WALKER, 1870).

Tulagi Isl., *lalang* on ridge, 19.I.1935. — Guadalcanal Isl., Arutigo, 9.XII.1934; Lunga, *Imperata*, 21.XII.1933.

There is no appreciable difference between the Solomon Islands specimens and the typical ones from the New Hebrides.

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