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## Vespoidea and Scoliidae from the Fiji and Solomon Islands (Insecta, Hymenoptera)

Seiki YAMANE\* and Kanetosi KUSIGEMATI\*\*

### Introduction

The Hymenoptera faunas of the Fiji and Solomon Islands have been studied by various authors (TURNER, 1918; GIORDANI-SOIKA, 1943; WILLIAMS, 1947; VECHT, 1971), but none of the island groups has thoroughly been surveyed. During the Kagoshima University Expedition to South Pacific in 1982, one of us (K. K.) collected hymenopterous insects on some islands of Fiji and Solomon. In this short paper we record vespoid and scoliid wasps including one new species of *Polistes* and one new subspecies of *Polistes stigma* for which descriptions are given.

### Eumenidae

#### 1. *Anterhynchium rufipes* (SAUSSURE)

Fiji. ♂, 27 xi, Ngaloa, Nuku, Viti Levu; ♀, 27 xi, Nawamangl, Sigatoka, Viti Levu; 2♂, 30 xi, Dreketi, Vanua Levu.

This species has been treated as belonging to the genus *Rhynchium*, *Odynerus* or *Pseudepipona* by various authors (cf. GIORDANI-SOIKA, 1957). It is, however, a species of *Anterhynchium* (subgen. *Epiodynerus*) as pointed out by VECHT (1963, p. 88).

Distribution: Fiji, Tonga, Samoa, Ellice, Tokelau, Savage, Sociey, Paumotu, and Marquesas.

#### 2. *Rhynchium quinquecinctum salomonis* MEADE-WALDO

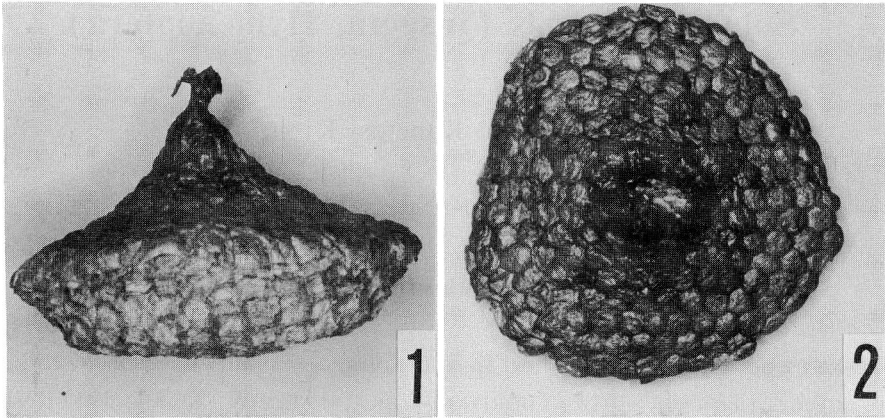
Solomons. 2♂, 7 xii, Lungga, Honiara, Guadalcanal I.

The two male specimens well agree in structure with the original description of *Rhynchium haemorrhoidale* Fabr., race *salomonis* by MEADE-WALDO (1910). Mesoscutum and scutellum are strongly punctate as in some specimens of the Japanese form *fukaii* Cameron.

Black; mandible, antenna, legs, apical bands on gastral tergites 1-4 orange or ferruginous. The following parts yellow: antennal scape below, mandibular base, a line along the inner margin of eye below, a transverse marking between antennae, a short line behind eye, pronotum anteriorly, markings on fore and mid-femur, and those

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Figs. 1, 2. Nest of *Polistes olivaceus*. It was 85 mm in diameter, 55 mm high including petiole, and with 200 cells. Twenty five female wasps were collected.

on all the tibiae.

In Polynesia is widely distributed another subspecies, *tahitense* (SAUSSURE) (GIORDANI-SOIKA, 1957; referred to as a subspecies of *R. haemorrhoidale*).

Distribution: Solomons.

### 3. *Parodynerus mediocinctus* (TURNER)

*Fiji.* ♂, 28 xi, Lautoka, Viti Levu.

This species was originally described from Fiji as a species of *Odynerus* (TURNER, 1918), then placed in the genus *Pachymenes* by GIORDANI-SOIKA (1943) (see also WIL-LIAMS, 1947). Here we follow GIORDANI-SOIKA (1957), who transferred it to the genus *Parodynerus* and recorded further two species from Fiji (*P. bicinctus* (F.) and *P. nigropetirolatus* G.-S.).

Distribution: Fiji.

## Vespidae

### 4. *Polistes (Megapolistes) olivaceus* (DEGEER)

*Fiji.* 3 ♀, 27 xi, Nanduri, Sigatoka, Viti Levu; ♀, 27 xi, Ngaloa, Nuku, Viti Levu; 2 ♀, 29 xi, Mbatir, Dreketi, Vanua Levu; 1 ♂ 1 ♀, 30 xi, Dreketi, Vanua Levu.

This is the most common paper wasp and only *Polistes* species so far known in the Fiji Islands. A nest (Figs. 1 & 2) was collected in Dreketi; it was suspended from a twig of a small tree at 70–80 cm above the ground, and was quite similar to the nest of *P. tepidus* (cf. S. YAMANE & OKAZAWA, 1977).

Distribution: Widely known from Southeast Asia and South Pacific, but precise

range is not known.

5. *Polistes (Megapolistes) tepidus malayanus* CAMERON

*Solomons*. ♀, 8 xii, Mt. Austen, Honiara, Guadalcanal I.; 2♀, Ngaliyangetu, Mbanovu, Guadalcanal I.

The subgenus *Megapolistes* of the Solomons was revised by VECHT (1971).

Distribution: New Guinea and neighbouring islands, Bismarcks, and Solomons.

6. *Polistes (Megapolistes) stenopus stenopus* VECHT

*Solomons*. ♀, 7 xii, St. Martin, Chaombata, Guadalcanal I.; ♀, 7 xii, Lungga, Honiara, Guadalcanal I.; ♂, 8 xii, Ngaliyangetu, Mbanovu, Guadalcanal I.

Distribution: Solomons.

7. *Polistes (Polistella) stigma nebulosus* subsp. nov.

♀. Body reddish brown; antenna somewhat paler in colour. Clypeus, the area between antenna and lower inner margin of eye, narrow apical bands on gastral tergites 1 and 3 yellow. Oculo-malar space and a pair of longitudinal markings on propodeum sometimes yellow. Very narrow line on the posterior margin of pronotum dull yellow. Fore wing fuscous apically.

Differs from the nominate subspecies in the much reduced yellow markings (tegula and metanotum entirely ferruginous).

Holotype: ♀, 7 xii 1982, St. Martin, Chaombata, Guadalcanal I., the Solomons, K. KUSIGEMATI leg.

Other specimens examined: *Solomons*. 2♀, 7 xii, Lungga, Honiara, Guadalcanal I. *Fiji*. ♀, 27 xi, Korotongo, Sigatoka, Viti Levu.

This species is recorded for the first time from Fiji.

8. *Polistes (Polistella) rufodorsalis* sp. nov.

♂. Body slender; head+thorax+T<sub>1</sub>+T<sub>2</sub> 8-10 mm long. Head very shallowly punctate. Clypeus longer than wide, anteriorly very weakly produced medially. Supraclypeal area moderately convex, with a short vertical keel between antennae. Distance between posterior ocelli slightly longer than their diameter. Thorax weakly punctate. Anterior part of mesoscutum medially impunctate. Scutellum raised beyond the level of mesoscutum, shallowly and sparsely punctate; metanotum almost impunctate. Mesopleuron moderately punctate, but anteriorly almost impunctate. Metapleuron very weakly punctate. Propodeum with striae which are obscure laterally. Gastral tergites and sternites impunctate. Last sternite without median tubercle, but with a basal groove. Anal lobe of hind wing distinct, defined by a linear incision. Marginal cell of fore wing fuscous.

Reddish brown; gastral tergites 3-7 black. The following parts yellow: mandible, clypeus, lower part of frons and ocular sinus, antennal scape below, anterior part of metanotum narrowly, anterior faces of fore and mid-coxa, apical bands on gastral tergites 1-4 (sometimes interrupted medially), those on gastral sternites 2-5. The apical bands on tergites and sternites are rather whitish.

Holotype: ♂, 8 xii 1982, Ngaliyangetu, Mbanovu, Guadalcanal I., the Solomons, K. KUSIGEMATI leg.

Other specimens examined: 2♂, the same day and locality as in the holotype.

9. *Polistes (Polistella)* sp. A

*Solomons*. ♀, 8 xii, Ngaliyangetu, Mbanovu, Guadalcanal I.

A small species measuring 11 mm in total length. Body black, with yellow markings. Clypeus black above and yellow below. Mesoscutum and scutellum reddish brown.

10. *Polistes (Polistella)* sp. B

*Solomons*. ♀, 7 xii, Lungga, Honiara, Guadalcanal I.

A small species measuring 12 mm in total length. Body nearly wholly yellow with a few brownish and black markings.

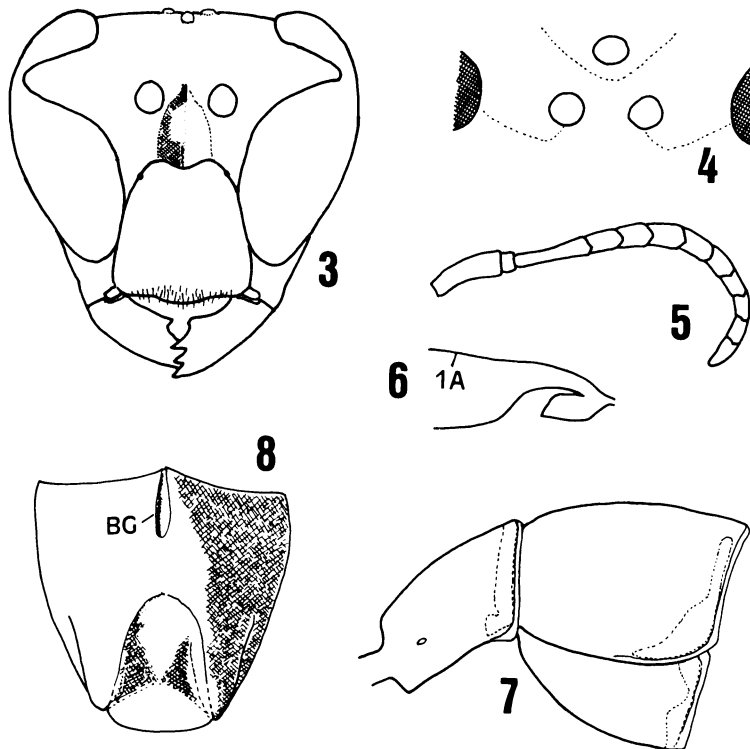
11. *Ropalidia gregaria* (SAUSSURE)

*Solomons*. ♀, 7 xii, Lungga, Honiara, Guadalcanal I.

Distribution: Philippines, Celebes to Fiji incl. New Guinea, and N. Australia.

### Scoliidae

12. *Campsomeris marginella modesta* (SMITH)



Figs. 3-8. *Polistes rufodorsallis* sp. nov. (male). 3. Head in front; 4. Ocellar area; 5. Right antenna from above; 6. Anal lobe of left hind wing; 7. Gastral tergites 1 and 2 in profile; 8. Last sternite (BG: basal groove).

*Fiji*. 11♂, 29 xi, Mbatir, Dreketi, Vanua Levu.

According to WILLIAMS (1947), this species was introduced from the Philippines into Hawaii in 1916, and then from Hawaii into Fiji in 1917, as an enemy of the larva of *Anomala orientalis* Waterhouse, a pest of sugar cane.

Distribution : Philippines, Hawaii, and Fiji.

13. *Campsomeris ovalauensis* (SAUSSURE)

*Fiji*. ♂, 27 xi, Nanduri, Sigatoka, Viti Levu.

Distribution : Fiji.

14. *Austroscolia auricola* (BETREM)

*Solomons*. ♂, 7 xii, Lungga, Honiara, Guadalcanal I.

The specimen in most characters agrees with the original description by BETREM (1928).

Distribution : Aru, Ambon, Kei, Seram, and Solomons (new record).

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