ON SOME SPECIES OF **BRACONIDAE** FROM FORMOSA AND THE PHILIPPINES IN THE DEUTSCHES ENTOMOLOGISCHES MUSEUM

BY

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(With 2 Textfigures)

As some Braconid-species of Formosa and the Philippine Islands have been sent to me for examination from the Deutsches Entomologisches Museum in Berlin-Dahlem, so I give a list of them here. In this occasion I describe two new species from Japan and Formosa preserved in the Entomological Museum of the Hokkaido Imperial University.

I wish to express my sincere thanks to Dr. W. HORN, director of the Deutsches Entomologisches Museum, and Mr. K. TAKEUCHI, who kindly sent material for my present use. Many thanks to Prof. S. MATSUMURA who has helped me in compiling this thesis.

Subfamily **Braconinae**

1. **Odontoscapus (Chaoilta) intrudens** (SMITH)


   *Chaoilta intrudens* SZÉPLIGETI, Gen. Insect., 22, p. 17 (1904); CAMERON, Soc. entom., p. 12 (1910);


   I have received 6 female specimens collected by W. SCHULTZE in Mindanao, Philippine Islands.

   Distribution: Celebes, Philippine Islands.

2. **Rhaconotus formosanus** nov. sp.

   ♀. Dark red, tinged with black; head, antennae and legs reddish yellow; wings hyaline, stigma pale, veins brown.

   Head and thorax coriaceous with pubescence; antennae slender, more than 21 jointed (the apex broken off). Parapsidal furrows finely marked; propodeum reticulate-rugose on the apical half, the two areas surrounded by carinae on each side of the base, being coriaceous.

   Recurrent nervure just received in the 2nd cubital nervure; nervulus postfurcal; 2nd abscissa of the radius about 3 times as long as the 1st. First tergite longer than broad at the apex; tergites 1st–4th and the 5th on the basal half longitudinally striate; the 5th on the apical half and the 6th coriaceous; 1st

suture plain; sutures 2nd-4th strongly crenulate, the 2nd slightly curved; ovipositor a little longer than the abdomen.

Length 5.5 mm.

♀. Unknown.

I have received one female specimen collected by H. Sauter at Kankau (Koshun) in Formosa.

Type-locality—Kankau (Koshun), Formosa.

Type in the Deutsches Entomologisches Museum.

This species is closely allied to *Rhacornotus oryzae* (Wilkinson (Bull. Ent. Res., xx, p. 205, 1929), but it differs from the latter in having the abdomen with 6 tergites visible above and the ovipositor a little longer than the abdomen.

**Subfamily Cheloniinae**

3. *Fornica arata* (Enderlein)


*Odontofornica* Enderlein has been already synonymized by Wilkinson (Bull. Ent. Res., xxix, p. 261, 1928) under *Fornica Brullé*.

I have received two female specimens collected by H. Sauter on the 1.-15. of September, 1907, at Thoroton in Formosa.

Distribution: Formosa, China (Yeung Kong).

4. *Chelonus formosanus* Sonan


According to J. Sonan this species is a parasite of *Cirphis loryi* Duponchel and *Prodenia litura* Fabricius.

I have received one female specimen collected by H. Sauter on the 1.-15. of September, 1907, at Thoroton in Formosa.

Distribution: Formosa.

**Subfamily Agathiinae**

5. *Microdas cancellatus* Enderlein

I have received one male specimen collected by H. Sauter in July, 1912, at Kankau (Koshun) in Formosa.

Distribution: Formosa.

Genus *Laccagathis* nov. gen.

Face normal, neither produced nor rostriform; frontal depression deep, extending from the base of the antennae to the ocelli, but not laterally margined, anteriorly in the middle with a short ridge. Mesonotum smooth and shining, the parapsidal furrows disappeared; mesopleural furrows undeveloped; propodeum smooth and shining, with either median longitudinal carina or without. Nervure separating the 1st cubital and 1st discoidal cells being not complete, only inchoate at both ends; 2nd cubital cell sessile, with a distinct stump of vein from the middle of the 2nd intercubitus; nervulus slightly postfurcal; a longitudinal vein in the discoidal cell of the hind wing. Abdomen longer than the head and thorax together; 1st tergite broadened apically, a little longer than broad at the apex; 2nd and 3rd tergites quadrate, parallel-sided, divided respectively by a straight transverse impression in the middle. Ovipositor long, the sheath nearly as long as the body.

Genotype—*Laccagathis formosana* Watanabe (nov. sp.)

In Enderlein's key (Arch. Naturg., 84 A, pp. 162-165, 1920) to the genera of this subfamily, this genus runs to *Braunsia* Kriechbaumer, but differs from the latter in having the parapsidal furrows disappeared and the frontal depression deep, anteriorly in the middle with a short ridge.

**Key to the Species**

1. Apical division of the 3rd tergite longitudinally striate; propodeum with a longitudinal median carina which bifurcates rather beyond its middle; wings basally flavo-hyaline and apically infuscated, with black markings. ...
   - Apical division of the 3rd tergite smooth and shining; propodeum with no longitudinal carina; wings infuscated, the basal one-fourth flavo-hyaline. ...
   2. *mindanaensis* nov. sp.

2. Abdomen above black with yellowish markings; hind legs reddish yellow; 2nd abscissa of the radius very short, the 2nd intercubitus just received in the junction of the radius and 1st intercubitus; propodeum with no transverse carina in the median area; 1st tergite on the basal half smooth and shining in the areas divided by the longitudinal carinae. ...
   - Abdomen above and hind legs black; 2nd abscissa of the radius about 1/4 as long as the 1st; propodeum in the median area with two short transverse carinae; 1st tergite on the basal half obliquely striate in the areas. ...
   3. *formosana* nov. sp.

6. *Laccagathis formosana* nov. sp.

♀. Yellowish red; flagellum of the antennae black; hind coxae tinged with black at the apex; wings basally with veins yellowish red, apically infusc-
Head and thorax smooth and shining; scapae stout; propodeum with a median longitudinal carina which bifurcates rather beyond its middle. Nervulus slightly postfurcal; 2nd abscissa of the radius short, the 2nd intercubitus just received in the junction of the radius and 1st intercubitus; hind legs long and slender, the tibial spurs subequal, about as long as \( \frac{3}{4} \) the length of the metatarsus; 1st tergite foveate at the base, with three longitudinal carinæ, the one being in the middle, the others at the sides, continued to the apex, and the apical half longitudinally striate, the basal half smooth and shining; 2nd and 3rd tergites subequal, strongly longitudinally striate, divided respectively by a straight transverse impression; apical division of the 2nd tergite longer than the others which are nearly equal in length, and the rest tergites short, smooth and shining; ovipositor as long as the thorax and abdomen together.

Length 14 mm.

♀. Unknown.

One female specimen was collected by Prof. S. Matsumura on the 21st of
of September, 1906, at Heirinbi in Formosa.
Type-locality—Heirinbi, Formosa.
Type in the Entomological Museum of the Hokkaido Imperial University.

7. Laccagathis japonica nov. sp.
Very similar in general structure and colour to the preceding species, but differs from it in the following points:
♀ 1). Abdomen above entirely black, except the 1st suture on both sides which is yellowish red. 2). Hind legs entirely black. 3). Antennae a little longer than the body, 14 mm. 4). Second abscissa of the radius half as long as the 1st. 5). Propodeum with two short transverse carinae in the median area. 6). First tergite on the basal half obliquely striate in the areas which are divided by some longitudinal carinae. 7). Striation of the abdomen coarser than that of formosana.
Length 11 mm.
♂. Unknown.
I have received one female specimen from K. TAKEUCHI collected on the 20th of August, 1919, at Gifu in Japan.
Type-locality—Gifu, Japan.
Type in the Entomological Museum of the Hokkaido Imperial University.

8. Laccagathis mindanaensis nov. sp.
♀. Reddish yellow; antennae, and hind legs black; three black spots on the mesonotum; abdomen black, the basal half of the 1st tergite, suture between the 1st and 2nd tergites, and belly yellow. Wings infuscated, the basal one-fourth flavo-hyaline, an oblique irregular streak runs outwards from the base of the stigma; ovipositor yellowish red, the sheath black.
This species is very similar in structure to L. formosana WATANABE, but differs from it in the following points:
1). Propodeum smooth and shining, with no median longitudinal carina. 2) The apical division of the 3rd tergite smooth and shining. 3) Ovipositor longer, almost as long as the body.
Length 12.5 mm.
♂. Unknown.
I have received one female specimen collected by W. SCHULTZE in Mindanao, Philippine Islands.
Type-locality—Mindanao.
Type in the Deutsches Entomologisches Museum.