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**Descriptions of two new species of Dryinidae from Botswana:
Bocchus martellii and *Gonatopus martellii*
(Hymenoptera Chrysidoidea)**

Abstract - Two new species of Dryinidae from Botswana are described: *Bocchus martellii* and *Gonatopus martellii*.

Riassunto - *Descrizione di due nuove specie di Dryinidae del Botswana: Bocchus martellii e Gonatopus martellii (Hymenoptera Chrysidoidea).*

Vengono descritte due nuove specie di Dryinidae del Botswana: *Bocchus martellii* e *Gonatopus martellii*.

Key words: Dryinidae, taxonomy, *Bocchus martellii*, *Gonatopus martellii*.

The Dryinidae (Hymenoptera Chrysidoidea) are parasitoids of Homoptera Auchenorrhyncha (Olmi, 1984; Guglielmino & Olmi, 1997).

Though the world known species are more than 1430 by now, new taxa are continuously discovered in a lot of countries insufficiently studied by entomologists. Under this point of view, Africa is surely a little known continent and Botswana is one of the world countries less studied.

Recently the California Academy of Sciences of San Francisco (U.S.A.) sent for study a few interesting specimens collected in Botswana. This material resulted in two new species described as follows.

MATERIAL AND METHODS

This paper is based on the study of dryinid specimens deposited in the following collections:

CAS: California Academy of Sciences, San Francisco, California, U.S.A.

OL: Massimo Olmi's Collection, c/o Department of Plant Protection, University of Tuscia, Viterbo, Italy

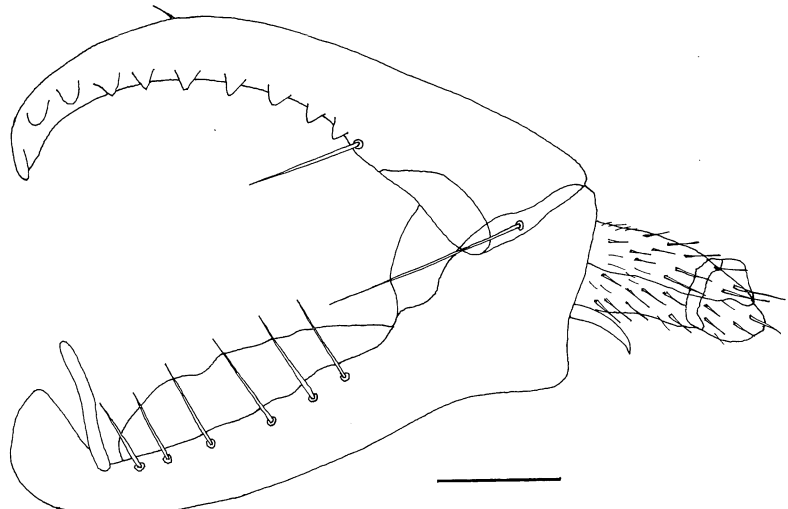


Fig. 1 - Chela of *Bocchus martellii* n. sp. (Holotype). Scale bar: 0.1 mm.

of the Afrotropical species of *Bocchus* can be proposed:

- 1 Micropterous; forewing approximately as long as tegulae*richardsi* Olmi
- Fully winged.....2
- 2 Scutum completely granulated, not reticulate rugose.....*krombeini* Olmi
- Scutum completely reticulate rugose3
- 3 Segment 1 of front tarsus approximately as long as segment 4 (Fig. 415 A in Olmi, 1984); antennae short, distally thickened, with segments 5-9 approximately as long as broad*seyrigi* (Benoit)
- Segment 1 of front tarsus longer than segment 4 (Fig. 414 B in Olmi, 1984).....4
- 4 Antennae shorter, distally more thickened, with segments 5-9 approximately as long as broad*botswanensis* Olmi
- Antennae longer and slender, with segments 5-9 longer than broad.....5
- 5 Scutellum smooth, very slightly granulated, not rugose; body almost totally yellow-whitish; forewing hyaline, without dark spots or dark transverse bands*hyalinus* Olmi
- Scutellum reticulate rugose; body mainly ferruginous or reddish, occasionally partly black; forewing with a dark spot or dark transverse bands6
- 6 Segment 5 of front tarsus with an inner band (Fig. 1); forewing with a dark spot near the pterostigma (Plate I)*martellii* n. sp.
- Segment 5 of front tarsus without an inner band (Fig. 414 in Olmi, 1984); forewing with two dark transverse bands*bini* Olmi

Gonatopus martellii n. sp.

MATERIAL EXAMINED: female holotype: Botswana, Serowe, VIII.1989, Malaise trap, P. Forchhammer coll., Calif. Acad. Sciences (in CAS); 1 female paratype: same locality label, VI.1988 (in OL).

DESCRIPTION OF THE FEMALE (Plate II): apterous; length 3.12-3.75 mm (holotype 3.12 mm).

Ferruginous, with petiole black, gaster mostly brown, antennal segments 6-10 darkened, legs partly darkened.

Antennae clavate; antennal segments in the following proportions: 11:6:11:6:6:6:4.5:4.5:4.5:7.5.

Head flat, dull, granulated. Frontal line almost absent (there is only a track). Occipital carina almost completely absent (it is only shortly present on the sides of the posterior ocelli, but it does not reach the eyes). Occiput dull, granulated, hairy. POL = 3.5; OL = 3.5; OOL = 9; OPL = 0.5; TL = 4.

Pronotum crossed by a strong transverse impression, with anterior collar and disc dull, granulated. Scutum slightly longer than broad (11:10), shiny, sculptured by longitudinal striae, laterally without points. Scutellum shiny, smooth, inclined. Metanotum short, longitudinally striate and hollow behind the scutellum. Metathorax + propodeum dull, with disc and anterior surface granulated. Posterior surface of propodeum, mesopleura and metapleura transversely striate. Meso-metapleural suture distinct and complete.

Fore tarsal segments in the following proportions: 14:3:5:16:24.

Enlarged claw (Fig. 2) with a small subapical tooth and 1 row of 4 peg-like hairs, in addition to 1 bristle. Segment 5 of front tarsus (Fig. 2) with two rows of 3 (proximal) + 20 lamellae; distal apex of segment 5 with a group of approximately 17 lamellae.

Palpal ratio 6/3.

Tibial spurs 1, 0, 1.

MALE: unknown

DERIVATIO NOMINIS: the species is named after Prof. Minos Martelli, Institute of Entomology, University of Milano.

REMARKS: *G. martellii* belongs to the group *incognitus* (corresponding to the old *Gonatopus* sensu stricto). Because of the segment 1 of front tarsus slightly shorter than segment 4, the meso-metapleural suture distinct and complete, the scutum less than twice as long as broad, the metathorax + propodeum without a median furrow, the mesopleura and scutum without a lateral pointed prominence, *G. martellii* is similar to *G. upembanus* Olmi, 1984. The main differences between these two species regard the shape of the head (excavated in *G. upembanus*; flat in *G. martellii*) and the colour of the mesosoma (black in *G. upembanus*; ferruginous in *G. martellii*).

In the key to the females of the Afrotropical *Gonatopus* (old *Gonatopus* sensu stricto) published by Olmi (1984), *G. martellii* can be included by replacing couplet 25, as follows:

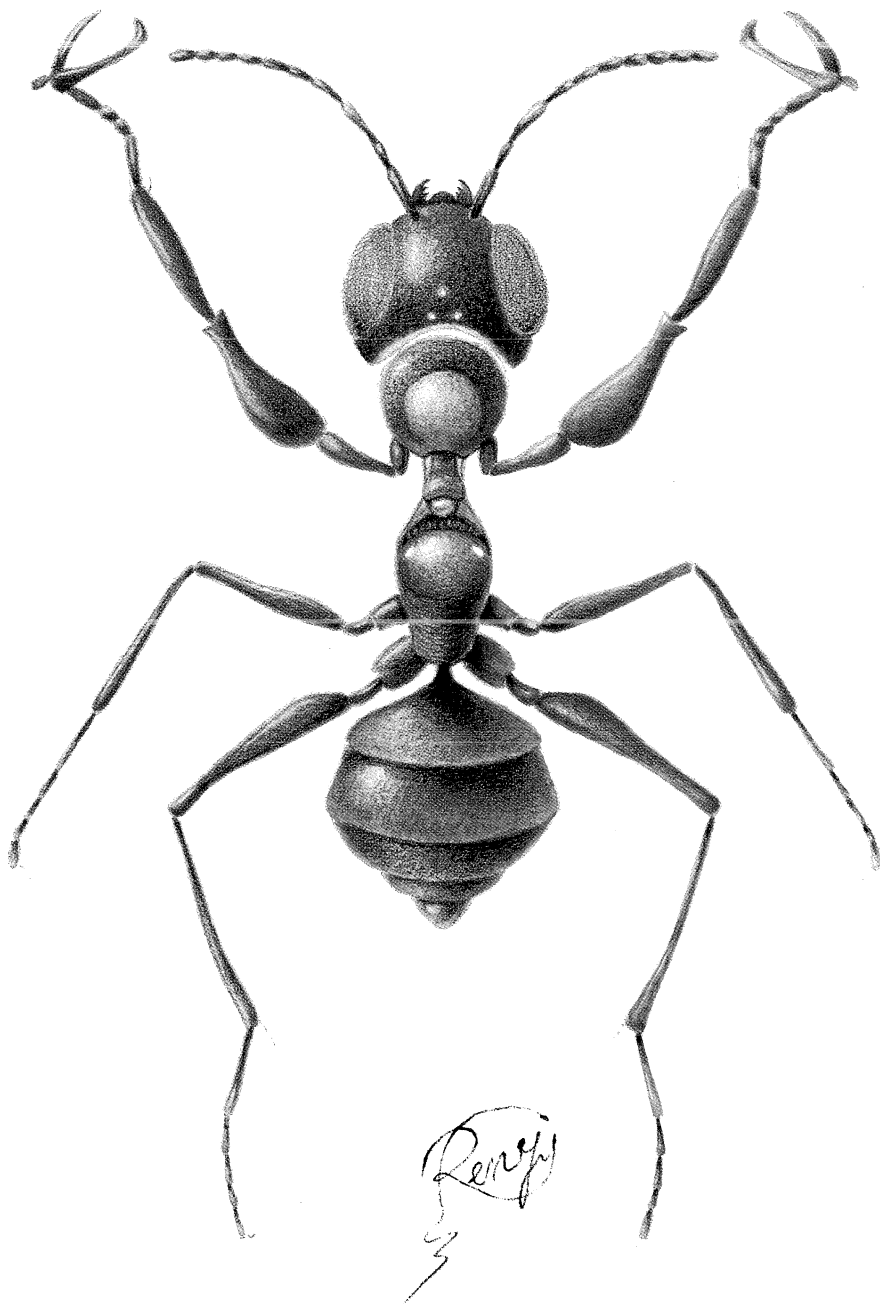


Plate II - *Gonatopus martellii* n. sp., paratype. Length 3.75 mm.

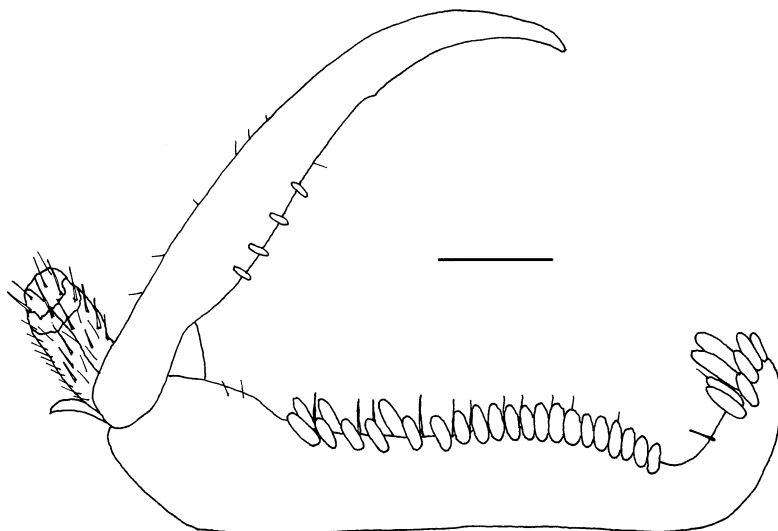


Fig. 2 - Chela of *Gonatopus martellii* n. sp. (Holotype). Scale bar: 0.1 mm.

- 24 Mesopleura with a lateral pointed prominence (Fig. 1131 A in Olmi, 1984).....23. *taylori* Olmi
 – Mesopleura without a lateral pointed prominence (Fig. 1131 B in Olmi, 1984)25
- 25 Scutum without two lateral pointed prominences (Fig. 1131 B in Olmi, 1984).....25'
 – Scutum with two lateral pointed prominences (Figs 1103 A, F, G in Olmi, 1984).....26
- 25' Head excavated; mesosoma completely black.....24. *upembanus* Olmi
 – Head flat; mesosoma ferruginous (Plate II).....40. *martellii* n.sp.

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