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A new species of the genus *Ectemnius* Dahlbom, 1845 from Cameroon (Hymenoptera: Crabronidae)

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Abstract: A new species of the genus *Ectemnius* Dahlbom, 1845, belonging to the subgenus *Policrabro* Leclercq, 1958 is described and illustrated: *Ectemnius babanki* sp. n. from the North West province of Cameroon. It is compared with a morphologically similar species *Ectemnius seyrigi* (Arnold, 1945) from Madagascar. A check-list of all members of the genus *Ectemnius* from the Afrotropical Region is also provided.

Keywords: Taxonomy, *Policrabro*, distribution data, Afrotropical Region.

INTRODUCTION

The genus *Ectemnius* Dahlbom, 1845 is worldwide in distribution, but only six species and one subspecies are known from the Afrotropical Region (including Madagascar) (Pulawski, 2014). Pulawski (2014) listed 188 species classified by Leclercq (1999) into eighteen subgenera.

The new species described herewith is a member of the subgenus *Policrabro* Leclercq, 1958. The subgenus includes 23 species from the Australasian Region and only one species from the Afrotropical Region: *Ectemnius seyrigi* (Arnold, 1945) from Madagascar (Leclercq, 1999). The diagnostic characters of the subgenus are given by Leclercq (1999) and, to judge from his work, the sparse mesopleural punctation, twelve antennal segments and the presence of the pygidium in the males appear to be most characteristic.

MATERIAL AND METHODS

Most morphological terms are used as in Bohart & Menke (1976) with a few additions from Lomholdt & Pulawski (2010). The antennae are considered to consist of: scape, pedicel and flagellum (flagellomeres I to X). The terms for the surface sculpturing are taken from the glossary by Harris (1976).

Labels of the type specimens were cited as originally given, and the different lines are separated by a forward slash (/). The type specimens are provided with red, printed labels bearing the following text: "HOLOTYPE [or PARATYPE] / *Ectemnius* (*Policrabro*) / *babanki* sp. nov. ♂ / M. Říha et J. Farkač det. 2014". The holotype has moreover a cardboard with genitalia, tergum VII, and sterna VII and VIII glued on.

Abbreviations in the text include: MHNG - Muséum d'Histoire Naturelle, Genève, Switzerland and MRBC - Martin Říha, Brno, Czech Republic (personal collection).

TAXONOMIC PART

Ectemnius (*Policrabro*) *babanki* sp. n.

Figs 1, 3, 5, 7, 9

Holotype: MRBC, without registration number; labelled "CAMEROON; North-West prov.; / E env. of Big Babanki; 1200 m; / 06°06.698´N 10°15.938´E; / 5.-13.iii.2008; Martin Říha leg."; male.

Paratype: MHNG, without registration number; same data as holotype; one male.

Description: Holotype. Length 7.7 mm (Paratype 8.0 mm). Body black. Antennal scape beneath, metanotum, small median spot on tergum I, wide band on tergum II (not reaching anterior and posterior margins) and two small spots on tergum III pale yellow. Pedicel and flagellomeres I-III, mandible largely (except bifid apex and inner tooth), labium, palpi, pronotal collar, pronotal lobe, tegula, and precostal plate, two lateral spots on scutellum, apices of all coxae, all trochanters, forefemur (except basal black spot), mid- and hind-femora beneath, fore- and hind-tibiae beneath,

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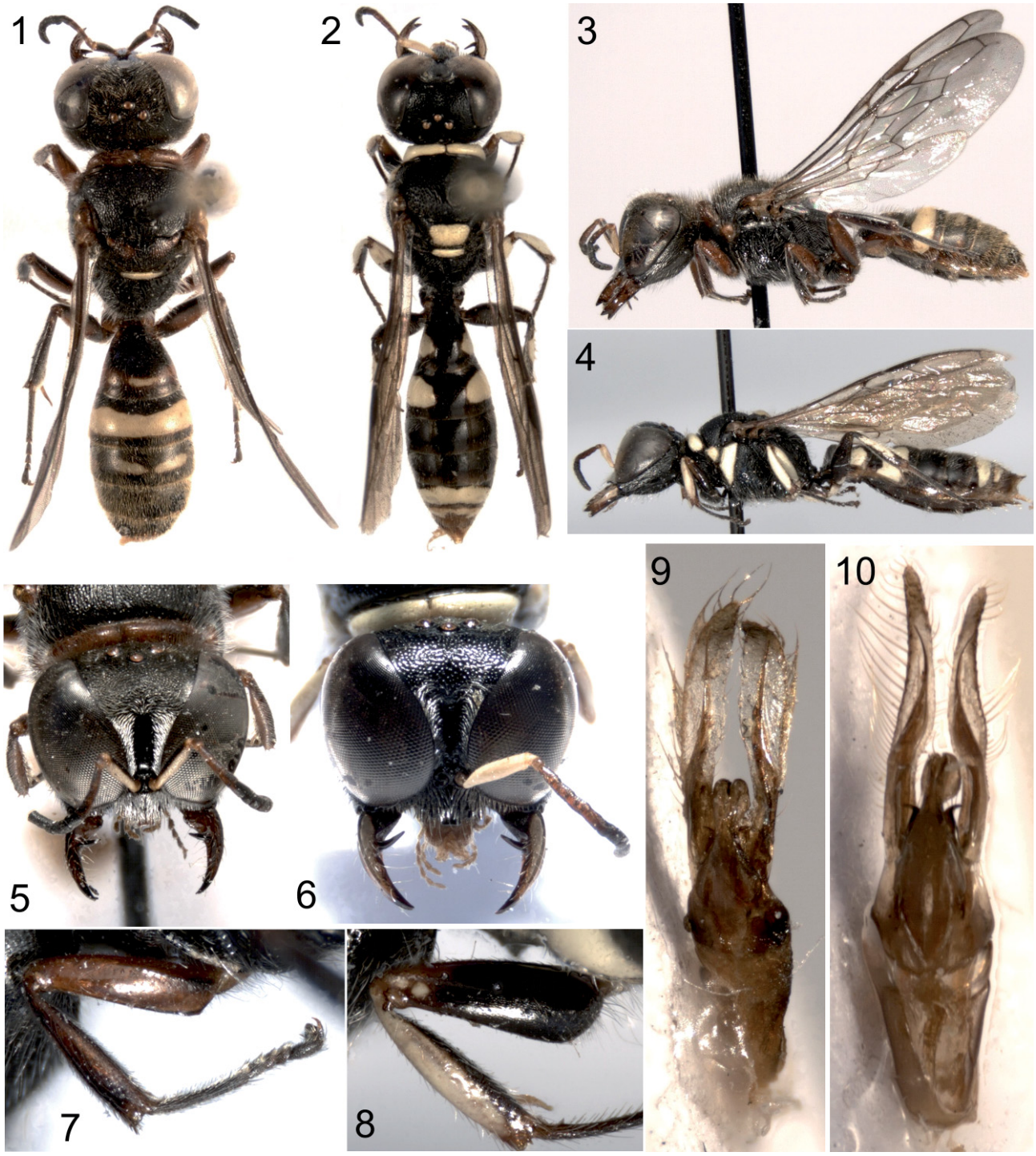

Fig. 1. *Ectemnius babanki* sp. n. (holotype), dorsal view.
Fig. 2. *E. seyrigi* (Arnold, 1945) (Andasibe), dorsal view.
Fig. 3. *E.babanki* sp. n. (holotype), lateral view.
Fig. 4. *E. seyrigi* (Arnold, 1945) (Andasibe), lateral view.
Fig. 5. *E. babanki* sp. n. (holotype), head, frontal view.
Fig. 6. *E. seyrigi* (Arnold, 1945) (Andasibe), head, frontal view.
Fig. 7. *E. babanki* sp. n. (holotype), foreleg, lateral view.
Fig. 8. *E. seyrigi* (Arnold, 1945) (Andasibe), foreleg, lateral view.
Fig. 9. *E. babanki* sp. n. (holotype), aedeagus, ventral view.
Fig. 10. *E. seyrigi* (Arnold, 1945) (Andasibe), aedeagus, ventral view.

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sides of terga I-VI, hindmargin of tergum VI, and entire tergum VII ferruginous. Pterostigma and veins of all wings dark brown.

Head as seen from above transverse (Fig. 1), length : width ratio 5 : 9 (dorsal view). Pubescence white, 1.7-2.2 × as long as diameter of midocellus, erect. Mandible bifid apically, with conspicuous inner tooth at basal third (Fig. 5). Median lobe of clypeus elongate, apical free margin rectangular, 1.5 × as wide as diameter of midocellus, smooth, laterally with small rounded tooth. Scapal basin slightly depressed, covered with dense silver pubescence laterally, width of glossy medial part equal to two diameters of midocellus (Fig. 5). Frons rather dull, irregulary sculptured, individual punctures not defined anteriorly and forming grooves backwards, interspaces with indications of carinae. Vertex glossy, interspaces between punctures less than their diameter. Gena glossy, with only minute setiferous punctures. Occipital carina not reaching hypostomal carina by distance equal to two diameters of midocellus. Ocellocular distance: postocellar distance = 10 : 9. Scape with one keel. Flagellomeres I-III slightly bulged beneath, dull, with narrow and inconspicuous tyloidea. Flagellomere IV notched beneath. Relative lengths of antennal scape: pedicel: flagellomeres I to X (last) = 37 : 8 : 12 : 9 : 9 : 10 : 5 : 5 : 5 : 5 : 6 : 8.

Pronotum medially notched, without conspicuous carina, lateral corners rounded. Scutum and scutellum rather shiny, punctured. Scutal punctures elongate, forming fine longitudinal ridges anteriorly, ridges slightly larger posteriorly and directed diagonally on postero-lateral corner. Scutellar punctures elongate lengthwise. Metanotum shiny, finely punctate. Propodeal enclosure inconspicuously but distinctly delimited by fine carina, basally longitudinally ridged, medially striate, median sulcus slightly indicated. Propodeal side and metapleuron shiny and finely longitudinally striated. Posterior part of propodeum strongly transversally keeled with conspicuous median sulcus. Epicnemial carina slightly curved backward ventrally, vanishing between striation of posterior part of propleuron. Mesopleuron and mesosternum glossy, interspaces between punctures about twice as large as their diameter. Mesopleuron with conspicuous precoxal keel ventrally curved forward. Mesosternum with short transverse carinae medially. Pubescence of thorax 1.7-2.2 x as long as diameter of midocellus, erect. Forefemur keeled basally, with one keel baso-ventrally and one postero-basally. Forebasitarsus inconspicuously curved, longer than following tarsomeres together (Fig. 7).

Abdomen sessile. Pubescence 1-1.5 x as long as diameter of midocellus, semierect. Terga slightly shiny, microsculptured, tergum I also with scattered punctures. Sternum I with conspicuous keel on basal half, bifurcate backwards. Pygidial plate present, subquadratic, micro-sculptured, slightly depressed apically, more so basally. Parameres of aedeagus rather wide all over its length (Fig. 9).

Comparison: *E. babanki* sp. n. differs from the related species *E. seyrigi* in the features indicated in the key below. The key is based on the males only, because the female of *E. babanki* sp. n. is unknown. The female is very likely to have the same distinguishing characters – mainly the colour and body sculpture. The key to the Asian species was given by Leclercq (1999).

Etymology: The new species is named after Big Babanki, a village in the North West province of Cameroon, where the type material was collected. It is a noun in apposition.

Distribution: So far only known from the type locality in North West Cameroon.

Habitat: Collected individually on leaves of high-grown *Mangifera* sp., on the occasionaly burned off grassy slope, on the edge of the village, at an altitude of about 1200 m.

Ectemnius (*Policrabro*) *seyrigi* (Arnold, 1945)

Figs 2, 4, 6, 8, 10

Material examined: MRBC, without registration number; E MADAGASCAR, Tamatave distr., Andasibe; 17.-30.xii.2001; David Hauck leg; one male.

Key to the Afrotropical species of *Ectemnius* subgenus *Policrabro*

1. Maculation of thorax and legs generally dark red (Figs 1, 3), tergum I with small yellow spot, tergum II with wide yellow band, terga V and VI immaculate (Fig. 1), forefemur carinate basoventrally (Fig. 7), forebasitarsus inconspicously curved (Fig. 7), flagellomeres I-III slightly bulged beneath, dull, with narrow and inconspicously indicated tyloidea, propodeal enclosure medially striate, aedeagus with parameres wide (Fig. 9) ....*Ectemnius babanki* sp. n.

– Maculation of thorax and legs generally pale yellow (Figs 2, 4), terga I and II with lateral yellow spots, terga V and VI largely yellow (Fig. 2), forefemur obliquely rounded basoventrally (Fig. 8), forebasitarsus markedly curved, flagellomeres I-III conspicuously bulged beneath, with conspicuous, wide and glossy tyloidea, propodeal enclosure medially smooth with sparse punctures, aedeagus with parameres narrow (Fig. 10) .... *Ectemnius seyrigi* (Arnold, 1945)

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List of Afrotropical species of *Ectemnius* Dahlbom

Subgenus *Metacrabro* Ashmead, 1899
Ectemnius abyssinicus (Arnold, 1947): Ethiopia
Ectemnius crippsi ssp. *crippsi* (Arnold, 1927): Zimbabwe
Ectemnius crippsi ssp. *mozambicus* (Arnold, 1960): Mozambique

Subgenus *Hypocrabro* Ashmead, 1899
Ectemnius praeclarus (Arnold, 1945): Madagascar
Ectemnius slateri (Arnold, 1926): Madagascar, Mozambique, South Africa, Zimbabwe

Subgenus *Policrabro* Leclercq, 1958
Ectemnius seyrigi (Arnold, 1945): Madagascar
Ectemnius babanki sp. n.: Cameroon

Subgenus ambiguous (see below)
Ectemnius arrogans (Arnold, 1958): Zimbabwe
Note: The subgeneric, and perhaps even the generic, status of *Ectemnius arrogans* (Arnold, 1958) is questionable. Pulawski (2014) attributed this species to the genus *Ectemnius*. Arnold (1958) in the original description, however, lists characters (mainly the absence of the precoxal carina) that exclude the placement of *E. arrogans* in this genus, and based on the same description, this species presumably does not belong to the subgenus *Policrabro*. The correct generic classification of this species can be established only through an examination of the type material.

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