

**Proceratium burundense** de Andrade n. sp.

Fig. 122

TYPE MATERIAL: holotype worker (unique) from Burundi labelled: "Burundi, Bujumbura, 4.III.77, A. Dejean" in BMNH.

DERIVATIO NOMINIS: "*burundense*" is a neologism indicating the provenance from Burundi.

DIAGNOSIS. A *Proceratium* species belonging to the *arnoldi* clade and differing from its sister species, *lunatum*, in the worker, by the head more elongate and the scape longer and less robust, by the smaller and more superficial foveae over the whole integument and by the subtler sculpture on the gaster.

DESCRIPTION. *Worker* (Fig. 122). Head slightly longer than broad, its sides weakly convex. Vertex in full face view slightly convex, in full dorsal view flat and bearing on each side a round, semitransparent macula. Clypeus medially reduced, subconvex, between the and slightly longer than the antennal sockets. Anterior border of the clypeus minutely crenulate. Antennal socket with broad torulus. Frontal carinae far from each other, partially covering the antennal insertions. Frontal area concave posteriorly, the concavity connected to a longitudinal carina prolonging posteriorly. Lateral expansions of the frontal carinae broader than in *lunatum*, slightly raised, diverging on the two anterior thirds and slightly converging on the posterior third. Genal carinae marked, each carina corresponding to the external border of a deep sulcus. Eyes relatively large, composed by 9 ommatidia and placed on the midline of the head. First funicular joint slightly longer than broad. Funicular joints 2-10 broader than long. Last funicular joint about as long as the sum of joints 7-10. Scapes much shorter than the vertexal margin and gently thickening apically. External border of the mandibles concave. Masticatory margin of the mandibles with 3-4 denticles before the pointed apical tooth. Palp formula 3,2.

Mesosoma convex in profile and slightly longer than the maximum head length (mandibles included). Basal face of the propodeum gently declivous posteriorly. Area between the basal and declivous faces of the propodeum weakly concave. Basal and declivous faces of the propodeum separate laterally by a lamellaceous tooth. Sides of the declivous face of the propodeum

with a broader and posteriorly obtuse lamella. Lower mesopleurae with well defined sutures, their posterior half strongly inflate and smooth. Propodeal spiracle round and above mid height in lateral view.

Petiolar node subconvex in profile, the dorsum of the node almost flat and bearing an irregular point postero-medially. Petiole in dorsal view with the sides diverging on the anterior fifth and convex posteriorly; its anterior border almost straight, carinate and laterally denticulate. Ventral process of the petiole lamelliform, subrectangular, the lamella strongly pointed posteriorly. Postpetiole anteriorly broader than the petiole; its sides gently convex. Postpetiolar dorsum with a postero-medial, semitransparent, flat bulla below the integument. Postpetiolar sternite anteromedially with a marked subtriangular projection. Postpetiolar sternite strongly convex posteriorly in profile. Constriction between postpetiole and gaster impressed. Gastral tergite I convex on the curvature and with a postero-medial, semitransparent, flat bulla below the integument. Remaining gastral tergites and sternites curved ventrally.

Legs slender and more elongate than in *lunatum*. All tibiae with a pectinate spur. Spurs of fore legs without basal spine. Fore basitarsi longer than the mid ones. Hind basitarsi about 1/4 shorter than hind tibiae. First tarsomere of hind legs subequal in size to the pretarsus. Pretarsal claws simple. Arolia present.

Sculpture. Head, mesosoma, petiole, postpetiole and gaster with small, irregular foveae and granulate, the foveae smaller, shallower and sparser on the anterior third of the first gastral tergite. Gaster with additional longitudinal, irregular, thin rugosities on the posterior two thirds. Legs punctate.

Pilosity similar to *lunatum* but the hair type (1) suberect and subdecumbent and type (2) sparser.

Colour. Light ferruginous-brown with lighter legs.

Measurements in mm and Indices: TL 3.44; HL 0.79; HW 0.72; EL 0.06; SL 0.54; WL 1.02; PeL 0.33; PeL 0.33; PeW 0.38; HFeL 0.59; HTiL 0.51; HBaL 0.39; LS4 0.24; LT4 0.61; CI 91.1; SI 68.3; IGR 0.39.

MATERIAL EXAMINED: BURUNDI: Bujumbura, 4.III.1977, 1 worker (holotype), A. Dejean [BMNH].

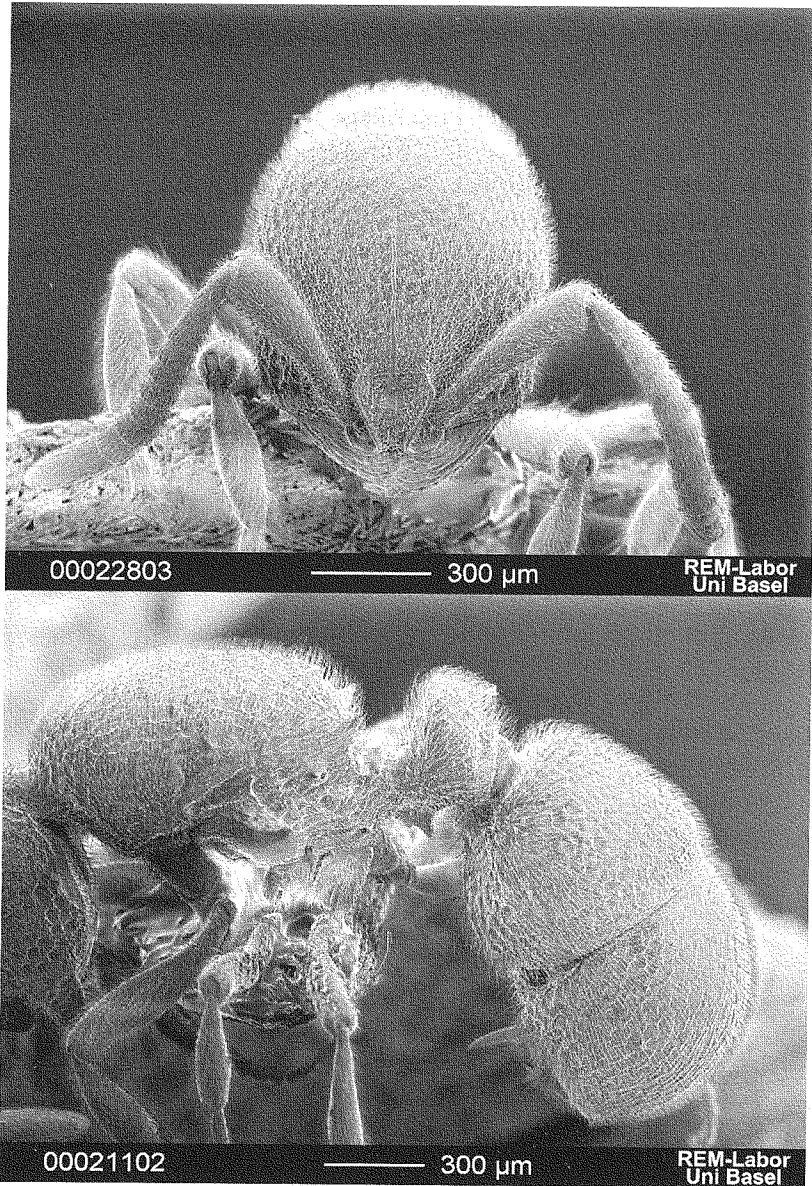


Fig. 122 – *Proceratium burundense* de Andrade. Worker (holotype) from Bujumbura, Burundi; head (top) in dorsal view and meso- and metasoma (bottom) in side view.

DISCUSSION. *Burundense*, known on one worker only, is the sole *Proceratium* species in which what we regard as a true worker has compound eyes. The sole worker of *P. toschii* also has well-developed eyes composed by 25 ommatidia but in this specimen the anterior ocellus is also well-developed. A true worker of *cubanum* has eyes consisting of a single convex facet as the other workers of the clade where it belongs. A second *cubanum* worker with well defined ommatidia, ocular pilosity and traces of ocelli is considered as sub-ergatoid in this paper (see the discussion under *convexiceps*).

DISTRIBUTION: Burundi.

### ***Proceratium arnoldi* Forel**

Fig. 123

*Proceratium (Sysphingta) Arnoldi* Forel, 1913: 210. Worker. Original description. Type locality: Bulawayo, Zimbabwe. Type material: holotype worker labelled: "Bulawayo (Arnold). *Sysphincta* Roger, sp. *Proceratium (Sysphincta) arnoldi* For., type" in MHNG, examined. A worker from Bulawayo, S. Rhodesia, 29.III.1913, G. Arnold, Arnold Coll. B.M.1934-354, labelled as syntype in BMNH is likely to be the specimen on which Arnold (1915) based his description and was probably never examined by Forel.

*Sysphincta Arnoldi* Forel, Arnold, 1915: 35. First combination in *Sysphincta*.

*Proceratium arnoldi* Forel, Brown, 1958a: 247. Figs. 1, 34-35 (worker).

DIAGNOSIS. A *Proceratium* species belonging to the *arnoldi* clade and resulting as outgroup of *lunatum* and *burundense*, and differing from both species, in the worker, by the sculpture more superficial and by the first gastral tergite more than 1/4 longer than the postpetiole instead of at least 1/7 of the length of the postpetiole.

DESCRIPTION. *Worker* (Fig. 123). Head longer than broad, with the sides gently diverging posteriorly. Vertex in full face view weakly convex. Clypeus medially reduced, gently convex, between the and slightly longer