

COLOBOSTRUMA PAPULATA species nov.

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Insecta: Hymenoptera: Formicidae

DIAGNOSIS: Worker: Near Colobostruma froggatti (= Epopostruma froggatti Forel), but smaller, and the whole body decidedly more slender relative to size. Preocular laminae nearly parallel (vs. strongly convergent in froggatti). Antennal scapes with narrower subbasal lobes. Sculpture of dorsum of head consisting of numerous, crowded but discrete low papules or tubercles with rounded summits (vs. irregular longitudinal rugae in froggatti.)

DESCRIPTION OF HOLOTYPE WORKER: total outstretched length (TL) 2.4, head length (HL) 0.63, head width (HW) 0.50, mandibular extension (ML) 0.15, alitrunk length (WL) 0.64, scape length (including lobe) 0.33, greatest diameter of eye 0.12 mm. = about 9 ommatidia. Cephalic index (CI) 79, mandibulo-cephalic index (MI) 24.

Form of head, mandibles and scapes as shown in fig. 1, except that the head as figured appears a trifle longer (and hence narrower) than it does in full-face view. Weakly convex compound eye situated in a sunken area in side of head; this area in turn surrounded (except below) by a raised rim composed of more or less coalesced papulae. Preocular lobe or angle of dorsolateral border of head more strongly salient than in froggatti. Vertex and occiput tending to form a single even convexity (in froggatti, the lateral parts of the occipital lobes are rather abruptly depressed below the level of the convex median part). Scapes narrower than in froggatti. Mandibles also smaller, with weaker external concavity and weaker dentition; masticatory margin very minutely crenulate, with 2-3 short, fine needle-like denticles irregularly spaced ventrally along the apical half, plus stouter but still small, preapical and apical teeth. Labrum tongue-like in shape, as in froggatti, with a single long, upcurved median sensory hair on its apical margin, covering the retracted under-mouthparts when closed down.

Alitrunk relatively higher than in froggatti, and its dorsum more convex in both directions; mesonotum discernible as a separate convex surface raised above pronotum; pronotum marginate anteriorly and weakly so laterally, humeral tubercles strong but blunt, anterior median pronotal impression distinct, interrupting margin broadly (more distinct than in froggatti). Promesonotal suture feeble, but visible in some lights; metanotal groove impressed and distinct, followed by a briefly convex propodeal dorsum and then broad translucent propodeal lamellae with acute teeth above, like those of froggatti.

Petiolar node shorter than in froggatti, and as seen from above subcuboidal, its posterodorsal margin forming a low rounded boss on each side of the midline, and its lateral processes extend perpendicularly, trailing small convex transparent lamellar wings. Petiole convex below. Postpetiole as in froggatti, but not so wide (0.35 mm), the translucent areas quite small, and paired posterior bosses distinct.

Gaster with feebly concave anterior border trailing very indistinct basal costulae of mediocre length.

Sculpture, except for papular tuberculation of cranium and some rather indefinite longitudinal rugation on promesonotal dorsum, consisting of fine, superficial shagreening (underside of head finely reticulopunctate) varying from opaque to feebly shining, the most shining parts being the center of the gastric disc and the gastric venter. Propodeum finely reticulopunctate, with indistinct transverse striation on the lower declivity. The insect is virtually hairless; aside from fine hairs on the inner mandibular borders and other mouth-

parts, the gaster bears a sparse scattering of extremely minute stubby vestigial hairs on its surface, and a few small clavate hairs at the extreme apex. Sting well developed and acute.

Color uniform tawny yellow

TYPE LOCALITY: Holotype taken at night by sweeping herbaceous and low shrubby vegetation, predominantly "sandplain heath," on Dempster Head, a gneissic hill at Esperance, Western Australia; February 4-6, 1955, E. O. Wilson leg.

DEPOSITED in Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA.

PARATYPE a single worker, with same collection data as the paratype, matches the holotype in all measurements listed (within the usual error), but is a trifle darker (more ferruginous) in color; the left mandible is missing. The paratype will be deposited in an Australian public collection yet to be chosen.

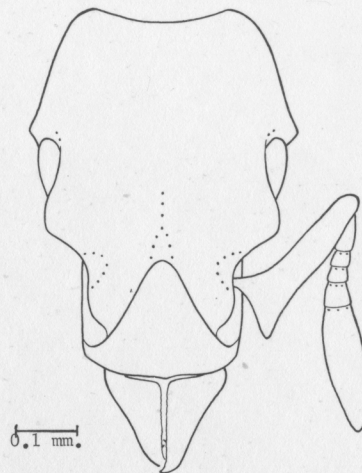


Figure 1. Colobostruma papulata sp. nov., holotype worker, dorsal view of head tilted slightly forward from full-face view; sculpture not shown. Drawing by Nancy Bufferler.

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Colobostruma papulata is one species of a remarkable "guild" of lightly-pigmented nocturnal-foraging ants found by Wilson and Haskins on the south coastal sand plain of Western Australia. Other species of Colobostruma also found here are C. cerornata (Brown, 1959, Brev. Mus. Comp. Zool. Harv., 108: 1-3), and C. nancyae (Brown, 1965, PRZ Card No. 22).

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