

COLOBOSTRUMA NANCYAE species nov.

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DIAGNOSIS: A very distinct species with 6 antennal segments, differing from all other known *Colobostruma* by numerous characters, the outstanding ones being the very broad head with unusually large eyes and strongly salient lateral occipital angles; the broadly rounded subbasal lobes of the scapes; the broad "turtle-backed" alitrunk with its expanded pronotum, sharp overhanging dorsolateral margins, and rounded, laterally deflected, vestigial propodeal lamellae; the complete and entire lamellar aliform expansions of the lateral margins of both petiole and post-petiole; the narrowly marginate anterolateral borders of the first gastric tergum; and the inflated tibiae with their angularly produced extensor-side apices.

FURTHER DESCRIPTION OF HOLOTYPE WORKER: total outstretched length (TL) 3.2, head length (HL) 0.84, head width (HW) 0.84, mandibular extension (ML) 0.17, alitrunk length (WL) 0.85, scape length including lobe 0.42, greatest diameter of eye 0.20 mm = 12 or 13 ommatidia. Cephalic index (CI) 100, mandibulo-cephalic index (MI) 20.

Form of body well illustrated by the figures. Mandibles with masticatory margins very minutely and feebly denticulate or "beaded," with a small triangular apical tooth and a still smaller preapical. Underneath the masticatory border proper are about 6 oblique, needle-like teeth directed ventromesad, and visible from above only when the mandibles are at least slightly open; also some fine hairs here. Labrum tongue-shaped, concave, with a weak median longitudinal carina, and covered with short, fine, reclinate hairs, but without a long apical hair; the labrum forms a tight-fitting operculum covering the retractile under-mouthparts and buccal opening.

Promesonotal and metanotal lines faintly indicated, not impressed (except promesonotal suture toward the sides).

Gaster not much longer than broad, covered almost completely above by the convex first tergum, which not only has its anterolateral shoulders marginate, but also has broadly lamellate margins along its ventrolateral borders. Basal costulae fine, continued back across the gastric length as fine opaque striation. Gaster beneath with a broad median convexity, which is the only smooth and shining part of the ant's integument, but this falls away basad and caudad to vaguely striate flat or concave surfaces.

Femora and tibiae, especially the latter, even more notably incrassate than usual for this genus, and with the outer (extensor) surfaces each produced distad to form a sharp, rounded apical ridge (or acute angle if the insect is viewed from the front, especially on middle and hind legs). Sting well developed and acute.

Except as noted above, the entire insect is very finely granulose or reticulo-punctulate and opaque. In addition the dorsum of the head is covered with narrow, crowded, irregular, wavy rugulae, predominantly longitudinal, and the alitrunk and both nodes are also longitudinally rugulose.

Although at first sight the body surface appears to be generally hairless, oblique lighting and magnifications of 50X reveal a sparse covering of extremely minute appressed or reclinate hairs, best developed on mandibles, clypeus and tibiae, but also (more erect) on gastric dorsum. Gastric apex with a few small erect clavate hairs.

Color light ferruginous, appendages and a large bilobed blotch at the gastric base lighter, more yellowish; center of gastric disc tending to be slightly darker.

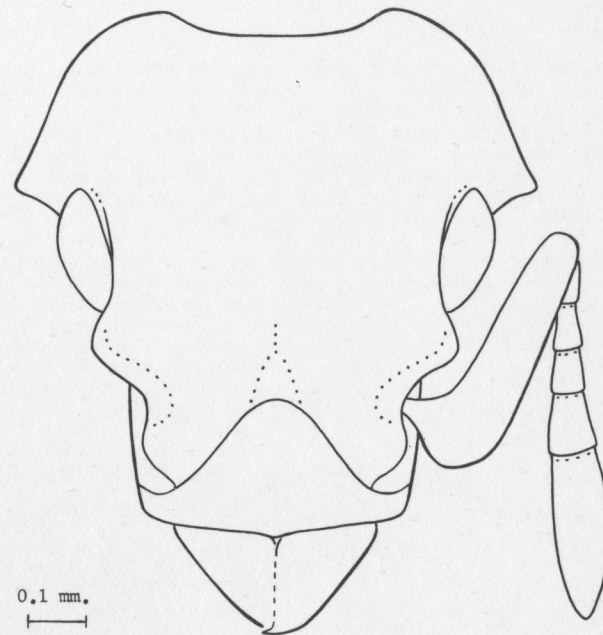


Figure 1. *Colobostruma nancyae* sp. nov., holotype worker, full-face view of head, sculpture omitted. Drawing by Nancy Buffler.

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TYPE LOCALITY: Holotype taken at night by sweeping herbaceous and low shrubby vegetation ("sandplain heath") about 8 km northeast of the old (then abandoned) Thomas River Station, which is about 100 km east of Esperance, Western Australia; January 28 and 29, 1955, E. O. Wilson and C. P. Haskins leg.

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

PARATYPES: 3 workers with the same collection data as the holotype (Wilson journal Nos. 417, 420), and one worker from 25 km south of Mt. Ragged, Western Australia (Mt. Ragged is about 60 km northeast of Thomas River); January 31, 1955; Wilson and Haskins leg., #426, night sweeping of sandplain vegetation. Paratypes to be deposited with the holotype and in some Australian public collection as yet not chosen.

Variation: TL 3.4 - 3.5, HL 0.87 - 0.91, HW 0.88 - 0.96, ML 0.18 - 0.19, WL 0.88 - 0.96, scape L 0.44 - 0.45, greatest eye diameter 0.20 - 0.22 mm., or 12 - 14 ommatidia in longest row. CI 100-105, MI 20 - 21.

The humeral angles vary slightly in sharpness, and in some specimens, the first gastric tergum has a large yellowish blotch on each side posteriorly. The blotches are all bordered by a line of slightly darker pigment, which consequently makes a "three diamond" pattern that is probably homologous with the smaller, solid pattern of some eastern species of the genus.

C. nancyae is not closely related to any other known Colobostruma, but perhaps is most like an undescribed species from Queensland and New South Wales in the C. australis group. The differences given in the diagnosis (above) will separate C. nancyae from this and all other species with ease. C. nancyae is a member of the remarkable "guild" of night-foraging ants discovered by Wilson and Haskins on the south coastal sandplain of Western Australia, which includes two other new Colobostruma species: C. cerornata (Brown, 1959, Brev. Mus. Comp. Zool. Harv., 108: 1-3), and C. papulata (Brown, 1965, PRZ Card No. 21).

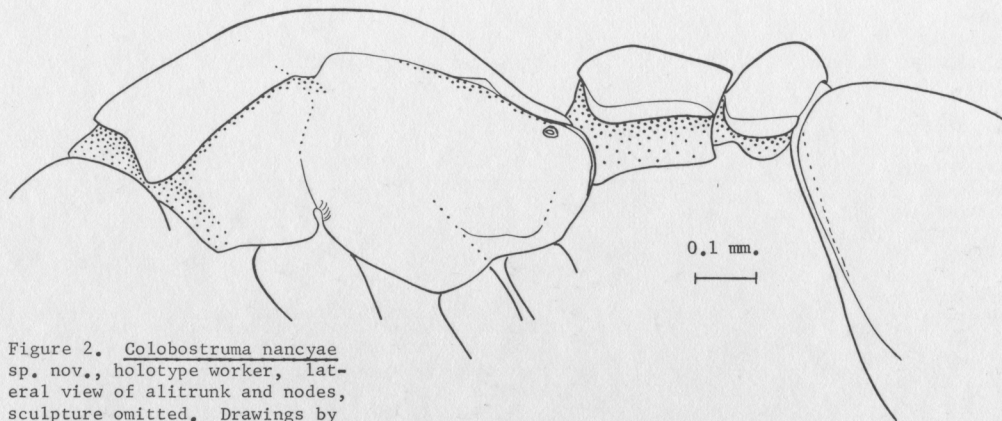


Figure 2. Colobostruma nancyae sp. nov., holotype worker, lateral view of alitrunk and nodes, sculpture omitted. Drawings by Nancy Buffler.

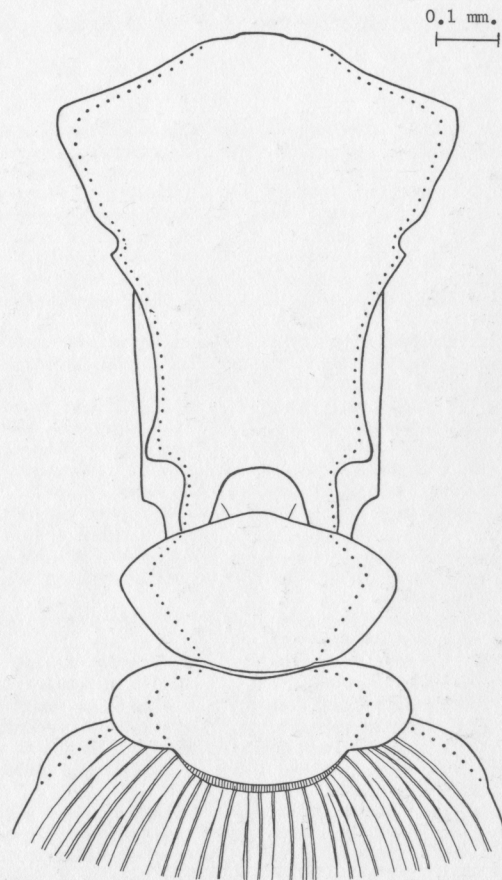


Figure 3. Same, dorsal view of alitrunk and nodes, sculpture omitted except for basal costulae of gaster.

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