

**A NEW GENUS AND SPECIES OF EURYTOMIDAE
(HYMENOPTERA: CHALCIDOIDEA)
FROM WEST BENGAL, INDIA**

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ABSTRACT. *Axanthosomella* Narendran, gen. nov. (Chalcidoidea: Eurytomidae) with a new species, *A. gadagkari* Narendran, is described from India.

Key words: Eurytomidae, *Axanthosomella*, new species, India, Oriental Region.

Introduction

While studying the chalcidoid parasites of gall midges, we came across an interesting genus of Eurytomidae which on closer study proved to be an undescribed genus. This new genus does not key out in any of the keys published by Burks (1971), Farooqi & Subba Rao (1985), Zerova (1978, 1995), Bouček (1988), and Narendran (1996). However, it shows close affinity to the Australian genus *Axanthosoma* described by Girault (1913) but differs from it in several generic features. This new genus and new species are described below.

The terminology generally follows that of Bouček (1988). F1 to F5 denote first funicular segment to fifth funicular segment. The following abbreviations are used. OOL - Ocellocular distance; POL - Posterior ocellar distance; SMV - Submarginal vein; MV - marginal vein; PMV - Post marginal vein; STV - Stigmal vein

***Axanthosomella* Narendran, gen. nov.**

Diagnosis: Body cylindrical, very narrow, without any coarse sculpture. Head subglobose with antennae inserted at or slightly above middle of face; eye not circular. Antennae with 5 funicular segments (Antennal formula 1153); scape much shorter than clava; scrobe very shallow, hardly distinct from frons. Hind ocelli distinctly away from eye margins (distance greater than diameter of ocellus); occiput shallowly emarginate; frons with moderately dense pubescence (cheek not carinately margined laterally). Mesosoma at least twice as long as broad, dorsally with very fine irregular reticulations

merging with cross striations; prepectus large and distinctly punctured. Axillae barely separated. Propodeum with a median narrow furrow. Metasoma distinctly petiolate with petiole longer than hind coxa; post-petiolar part dorsally cylindrical. Epipygium very short. Male antenna with two whorls of setae on each funicular segment, funicle segments without constriction at middle, each tapering at apex.

Type species: Axanthosomella gadagkari, sp. nov.

Remarks: *Axanthosomella* can be distinguished from all other pteromalid genera by the characters mentioned in the diagnosis. It resembles *Axanthosoma* Girault in having subglobose head, slender and very narrow body, without coarse sculpture, and axillae barely separated. However it differs from *Axanthosoma* in occiput not deeply concave posteriorly (deeply concave posteriorly in *Axanthosoma*); epipygium short (very long in *Axanthosoma*); and metasoma with petiole longer than hind coxa (metasoma sessile or subsessile or at most with a short petiole (which is shorter than hind coxa) in *Axanthosoma*).

Dr. Bouček (*per. comm.*, 2000) informed TCN that the genus comes near *Tetramesa* Walker but is not congeneric. *Tetramesa* differs from the new genus in having the head transverse (subglobose in *Axanthosomella*), gaster sessile (petiolate in *Axanthosomella*), and scape reaching or slightly exceeding level of vertex (not reaching vertex in *Axanthosomella*).

Giraultoma Bouček differs from *Axanthosomella* in having a transverse head, stouter body, deeper scrobe, metasoma with petiole shorter than half length of hind coxa, and propodeum with a large shallow smooth and shiny median area (in *Axanthosomella* median fovea narrow and deeper).

Etymology: The generic name is after *Axanthosoma* owing to the close affinity to that genus. The gender is feminine.

Axanthosomella gadagkari Narendran, sp. nov. (Figs. 1-5)

Female: Length 2.1-2.41mm. Black; antenna brown with scape and apex of pedicel paler; eye dark brown; tegula pale brown; pronotum with a pale brown yellow patch on posterior lateral part on either side. Wings hyaline; veins brown with apex of SMV and basal stalk of STV paler. Fore leg with coxa, trochanter, basal two-thirds of femur brown, apex of femur paler; tibia and tarsi pale brownish yellow. Mid leg with coxa and trochanter brown; femur brown with apex paler; tibia pale yellow with middle portion darker; tarsi pale yellow; pretarsi darker. Hind leg with coxa, trochanter and femur blackish brown with apex of femur paler; tibia brown with base and apex paler; tarsi paler; pretarsi darker. Pubescence on body white.

Head: Subglobular; width in dorsal view (Fig. 3) 2.25x its median dorsal length, a little more than 1.6x width of mesosoma; width in anterior view 1.08x its length, with moderately dense pilosity on frons; vertex and frons weakly reticulate; scrobe shallow, hardly distinct from parascrobal area, margins of scrobe indistinct: POL 1.75x OOL; maximum diameter of eye in

side view 2.85x malar space; gena weakly reticulate, its posterior margin carinate. Antennal formula 11153; antenna with long hairs; scape hardly reaching front ocellus, shorter than clava. Relative length and width of antennal segments: scape 30:11; pedicel 17:9; F1 11:7; F2 10:9; F3 12:9; F4 11:11; F5 9:11; clava 33:12.

Mesosoma (Figs. 1, 4): Collum transversely striate-reticulate; dorsum of pronotum reticulate with larger scattered subrounded pits (in holotype the pits are sparser and reticulation less pronounced than in paratypes); lateral panel of pronotum reticulate. Mesoscutum transversely striate-reticulate with sparse setae and shallow pits; length of mesoscutum 1.5x its width; scutellum with weak reticulations, longer than mesoscutum (45:36); propodeum with a median shallow furrow (Fig. 4) its sides reticulate-punctate; callus pubescent; spiracle nearer to anterior margin of propodeum, subcircular. Prepectus large, distinctly and strongly reticulate-punctate; meso- and meta-pleura as in figure 1. Fore wing length 2.43x its width; speculum asetose, open below; with 4 proximal line of setae; costal cell with a few dorsal and ventral setae at its distal end (near MV); MV slightly thickened towards its distal end. Relative lengths of fore wing veins- SMV=59; MV= 24; PMV= 9; STV= 8.5.

Metasoma: Length 1.42x length of mesosoma; petiole longer than hind coxa, striate-reticulate; tergites smooth and polished with sparse pubescence on posterior tergites (Fig. 1). Epipygium short, not produced posteriorly, ovipositor exerted but ovipositor sheath not exerted.

Male: Length 2.01 mm. Similar to females except in having funicular segments petiolate and with two sets of hairs on each segment.

Host: According to BKD the host of this species is a mango gall midge (Diptera: Cecidomyiidae). However judging from the description and figures, Dr. Bouček (*per comm.*, T.C.N, 2000) suspects the eurytomid species might be phytophagous, living in grass.

Holotype: ♀, INDIA: West Bengal: Murshidabad, 5.iii.1999, Coll. B.K. Das. *Paratypes*: 6♀, 2♂, West Bengal: Malda, 11.ii.2000. Deposited in Western Ghat Field Research station, Zoological Survey of India, Calicut.

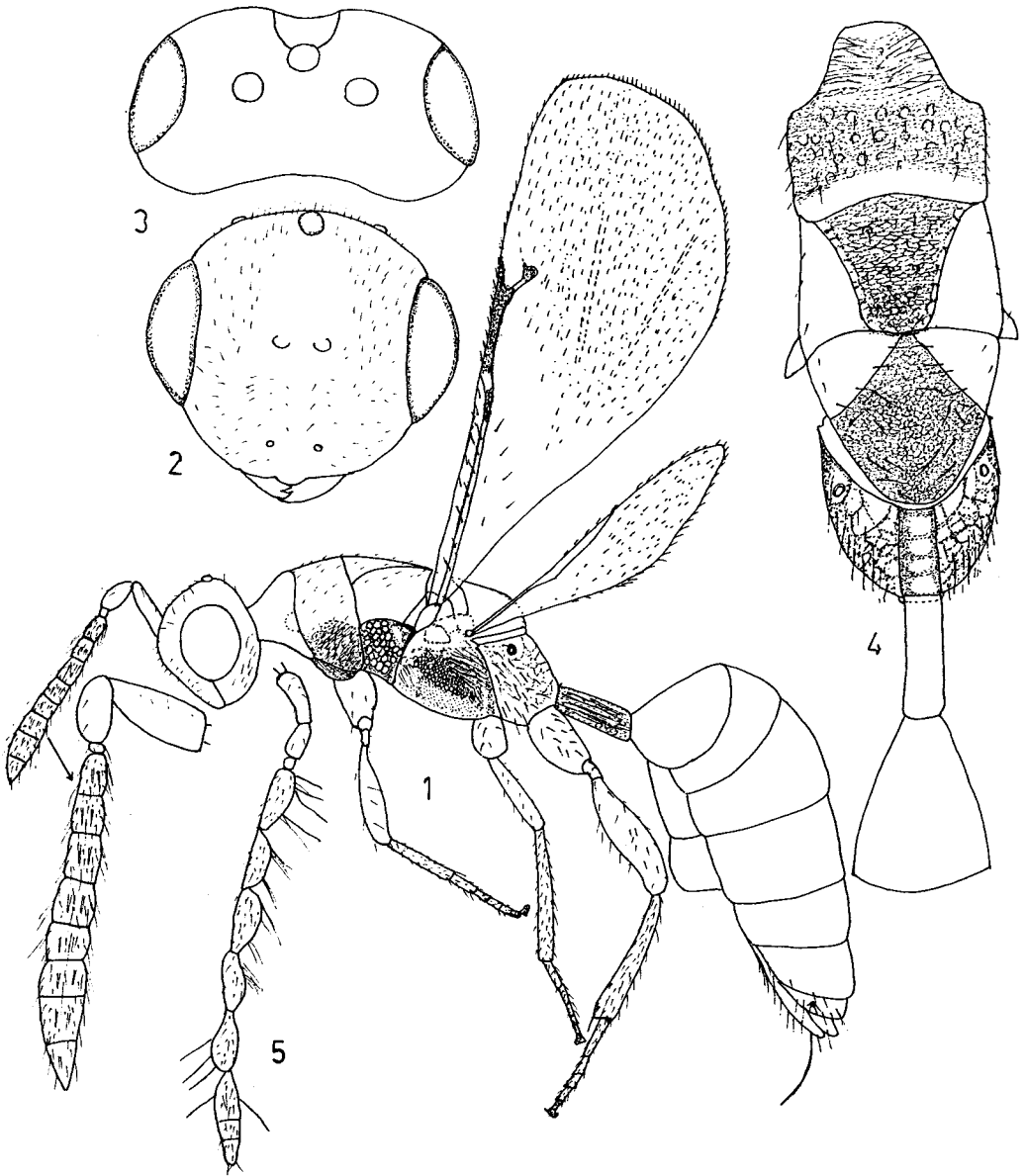
Etymology: The species name is in honour of Professor Raghavendra Gadagkar, Chairman, Centre for Ecological Sciences, Indian Institute of Science, Bangalore who made significant contributions to the ethology of Hymenoptera.

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Figs. 1-5. *Axanthosomella gadaghari* Narendran, gen. et sp. nov. (1-4 female, 5 male): 1, body profile; 2, head front view; 3, head dorsal view; 4, mesosoma and part of metasoma; 5, male antenna.