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A NEW GENUS OF PTEROMALIDAE FROM SRI LANKA WITH A NOTE ON SYNONYMY (HYMENOPTERA: CHALCIDOIDEA)

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INTRODUCTION

Pteromalid fauna (Hymenoptera: Chalcidoidea) of India and the adjacent countries is not isolated from other parts of the world and many interesting taxa are being collected from this part of Asia. As part of the studies on the collection of Pteromalidae received from Bohart Meseum of Entomology, University of California, Davis, USA (Sureshan & Narendran, 2004, Sureshan, 2004 Sureshan & Narandran (in press)), I have found an interesting species from Sri Lanka which is found to belong to an undescribed genus. The genus belongs to the subfamily Pteromalinae and tribe Pteromalini showing character states intermediate between *Lyubana* Boucek and *Halticopterella* Girault & Dodd.

While revising *Halticopterella*, I have examined the type of *Lyubana* Boucek and synonymised it under *Halticopterella* (Sureshan, 2001). But later examination of additional specimens of *Halticopterella* and *Lyubana* species revealed that this synonymy is erroneous due to the following reasons. *Lyubana* possesses a neat arched propodeal costula connecting ends of plicae and hence readily reminds *Halticopterella*. *Lyubana* also has the antenna with 3 anelli and 5 funicular segments with flagellum hardly clavate, lower clypeal margin with two teeth, pronotal collar anteriorly carinated, mesoscutum with incomplete notauli *etc*. which are also shared by *Halticopterella*. While synonymising *Lyubana* with *Halticopterella* I had overlooked some of the important character states in *Lyubana* by which it can be readily segregated from *Halticopterella*. Unlike *Lyubana*, in *Halticopterella* the scutellum has a small bare area without pilosity mesoposteriorly, callus of propodeum ending posteriorly by a sharp tubercle, antennae with strip of micropilosity reaching base of second claval segment and gaster with T1 not arcuately produced. In *Lyubana* whole thorax is covered with dense but shorter pubescence without any bare area on

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scutellum, propodeal callus ending roundly without any tubercle, micropilosity strip of clava reaching only upto base of third segment and gaster with T1 arcuately produced. Hence *Lyubana* Boucek is maintained here as valid genus (Stat. Rev.) invalidating my former synonymy of it under *Halticopterella*. *Lyubana* Boucek is now known for 4 valid species from the world viz. *L. slavica* Boucek from Yugoslavia, *L. liaoi* Xiao & Huang, *L. longa* Xiao & Huang and *L. prolongata* Xiao & Huang, all from China.

Neolyubana gen. nov.

Type species: Neolyubana noyesi sp. nov.

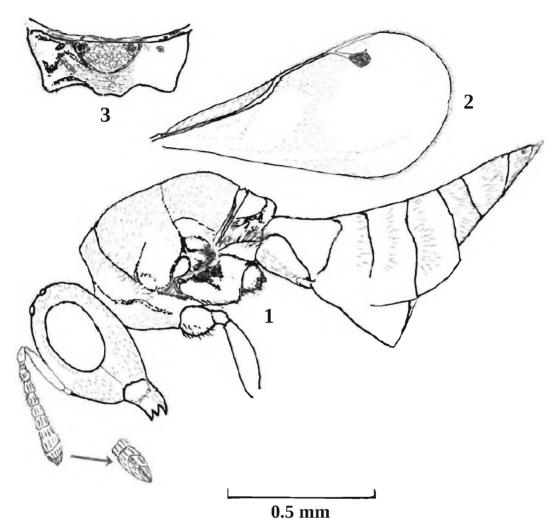
Head and thorax reticulate. Occiput immargined, sharply receding. Clypeal and adjacent areas finely striate, anterior margin of clypeus weakly emarginated. Posterior margin of gena sharp but without carina. Eyes bare. Antennae inserted below middle of face, little above lower margin of eyes; formula 11353; third anellus little wider than others; flagellum distinctly clavate, funicular segments slightly nodose, covered with moderate pubescence each with single row of long sensillae; clava with sutures oblique, micropilosity strip extending upto base of second claval segment.

Thorax: Pronotal collar anteriorly with fine carina, without a smooth strip posteriorly. Mesoscutum with notauli complete, fine and groove like. Scutellum without frenal line. Dorsellum narrow, almost shiny. Propodeum (Fig. 3) constricted to a nucha; plicae distinct, but turning mesad as arcuate costula before reching nucha, anteriorly inside of each plicae a smooth, elongate fovea; no median carina; post spriracular sulcus shallow; supra coxal flange narrow, arcuate, situated very low. Prepectus as long as tegula, finely reticulate except on margins. Upper mesepimeron and subalar area shiny. Metapleuron shiny, upper and lower margins marked with a transverse elongate fovea. Forewing (Fig. 2) not densely pilose, apical fringe present, basal hair line weakly indicated by few scattered hairs, basal cell with few scattered hairs, speculum open below, cubital setal line distinct, stigma distinctly capitate, almost rectangular. Legs moderately slender but hind coxa broad, dorsally bare, hind tibia with two unequal spurs.

Gaster: Sessile, lanceolate, in dried specimen T1 collapsed and strongly narrowed due to lose attachment laterally to T2; hind margin of T1 distinctly angulate.

Neolyubana noyesi sp. nov.

Holotype: Female: Length 2.5 mm. Head and thorax dark metallic blue, head more blackish; gaster brown with metallic blue reflection; antennae with scape and pedicel testaceous, remainder pale brown; eyes pale chocolate brown; ocelli whitish brown; pubescence on head and thorax white. Tegulae brown, wings hyaline, veins testaceous with stigmal knob brown; pubescence brown. Coxae concolorous with thorax, remainder brown with tarsi testaceous. Mandibles brown.



Figs. 1-3.: Neolyubana noyesi sp. n.

Female: 1. Body in profile; 2. Forewing; 3. Propodeum in dorsal view.

Head: Head and thorax with extensive, but short subdecumbent pilosity, individual hairs curved, whitish. Head uniformly and finely reticulate, reticulation coarser on area below median ocellus and parascrobal area. Genae almost shiny. Scrobe moderately deep; toruli separated by their individual diameter; right mandibale with 4 and left with 3 teeth; malar sulcus sharp, fine; POL 1.8x OOL. Head 2x as broad as long in dorsal view; temple length 0.4x eye length; eye length 1.4x breadth in profile; malar space almot half of eye length in profile. Antennae with scape not reaching median ocellus, 0.8x as long as eye; pedicel distinctly longer than F1; F1 slightly shorter than F2; F2 and F3 almost equal; F4 and F5 slightly shorter than F3 and as long as F1; clava as long as 3 preceding segments combined.

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Thorax: Moderately reticulate. Pronotum 0.87x as wide as mesoscutum. Mesoscutum 1.7x as wide as long. Scutellum as long as broad, similarly sculptured as on mesoscutum. Propodeum (Fig. 3) 2.8x broader than median length, area inside plicae moderately reticulate, except on an anterior strip shiny; nucha finely striate reticulate; spiracle moderate, elongate, close to metanotal border; post spiracular sulcus shallow; callus convex, ending in a blunt conical projection, covered with moderate dense pilosity. Forewing (Fig. 2) 2.11x as long as wide, basal cell with few scattered hairs. Relative lengths SMV 18, MV 11, PMV 9, STV 5.5.

Gaster: Little longer than head and thorax combined (in profile); hind margins of T2 and T3 subangulate, hind margin of T2–T4 with median indentation; hypopygium ending before middle of gaster.

Male and biology not known.

Holotype: Female: Sri Lanka: Central Province, Kandy Dist. Vict. Randenigala Rantembe Sanctuary, N 07°13′ E 080°57′, 23-30.viii.1999, Coll. MT. M.&J. Washbauer (deposited in Bohart Museum of Entomology, University of California, Davis, USA).

Etymology: *Neolyubana* name from *Lyubana*, owing to the close resemblance of this genus to *Lyubana* Boucek. Name gender is feminine. The species is named in honour of Dr. John. S. Noyes, Natural History, Museum, U.K.

Remarks: This genus closely resembles Lyubana Boucek in having a propodeum with neat arched costula connecting ends of plicae, and sharing many other character states like general habitus, body sculpture, pilosity etc., but differs in having a well capitate stigma of forewing, clypeus without teeth, genae posteriorly not carinate, antennae inserted well below center of face which is distinctly clavate, F1 shorter than pedicel with single row of sensillae, clava with sutures distinctly oblique with micropilosity strip down to base of second claval segment, pronotal collar without smooth strip on hind margin, propodeum with adpetiolar margin not thin, nucha finely striate reticulate and no median carina., gaster with T1 distinctly angulate and T2 and T3 subangulate. In the nature of propodeum it also resembles some species of Halticopterella but differs from it in the nature of antenna, body pilosity (without a bare strip dorsomedially on scutellum), antennae with micropilosity strip on clava reaching down to second segment.

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REFERENCES

- Sureshan, P.M. 2001. A Taxonomic revision of the genus *Halticopterella* (Hymenoptera : Chalcidoidea : Pteromalidae). Oriental. *Insects*. **35** : 29-38.
- Sureshan, P.M. and Narendran, T.C. 2004. Description of a new species of *Grahamisia* Delucchi from Sri Lanka and key to the world species (Hymenoptera : Chalcidoidea : Pteromalidae). *Zoos's print journal*, **19**(9) : 1616-1618.
- Sureshan, P.M. 2004. On the distribution and variations in the species of *Kumarella* Sureshan (Hymenoptera: Chalcidoidea: Pteromalidae). *Rec. zool. Surv. India*, **103**(3-4): 125-127.
- Sureshan, P.M. and Narendran, T.C. A new species of *Dipara* Walker (Hymenoptera: Pteromalidae) from Sri Lanka and key to the species of Indian subcontinent. (in press). *Rec. zool. Surv. India*).