

Rec. zool. Surv. India : 105 (Part 1–2) : 105-109, 2005

A NEW SPECIES OF *DIPARA* WALKER (HYMENOPTERA : PTEROMALIDAE) FROM SRI LANKA AND KEY TO THE SPECIES OF INDIAN SUBCONTINENT

P.M. SURESHAN AND T.C. NARENDRAN*

Estuarine Biological Station, Zoological Survey of India, Berhampur-760 005, Orissa, India

INTRODUCTION

Dipara Walker belongs to the subfamily Diparinae of Pteromalidae, which is represented by 15 species all over the world with distribution in North America, Europe, Africa, Australia and South Asia (Noyes, 2001). Biological data is not available for any of these species, which were often collected from litter under tree or from pitfall traps. They are probably parasitic on some Coleoptera dwelling in the soil or on roots of plants (Boucek, 1988). Though Boucek *et al.*, (1979) reported an undescribed species of *Dipara* from Sri Lanka and Boucek (1988) mentioned the occurrence of three species elsewhere from South Asia, it was Narendran & Sureshan (2001) who described three Indian species. Here one new species of *Dipara* is described from the central province of Sri Lanka. The specimen belongs to the collections of Bohart Museum of Entomology, University of California which was made available for our study by the kind courtesy of Dr. Steven L. Heydon. A key to the *Dipara* species of the Indian subcontinent is also provided here to accommodate the new species.

Following abbreviations are used in the text : F1-F7–Funicular segments 1 to 7, OOL–Ocellular distance; POL–Postocellar distance; SMV–Submarginal vein; MV–Marginal vein; PMV–Postmarginal vein; STV–Stigmal vein; T1-T5–Gastral tergites 1 to 5.

Dipara intermedia sp. nov.

(Figs. 1-3)

Holotype : *Female* : Length 2.5 mm. Yellowish brown, darker on mesoscutum and scutellum dorsally and lower part of mesopleuron and metapleuron laterally; eyes silvery white; antenna

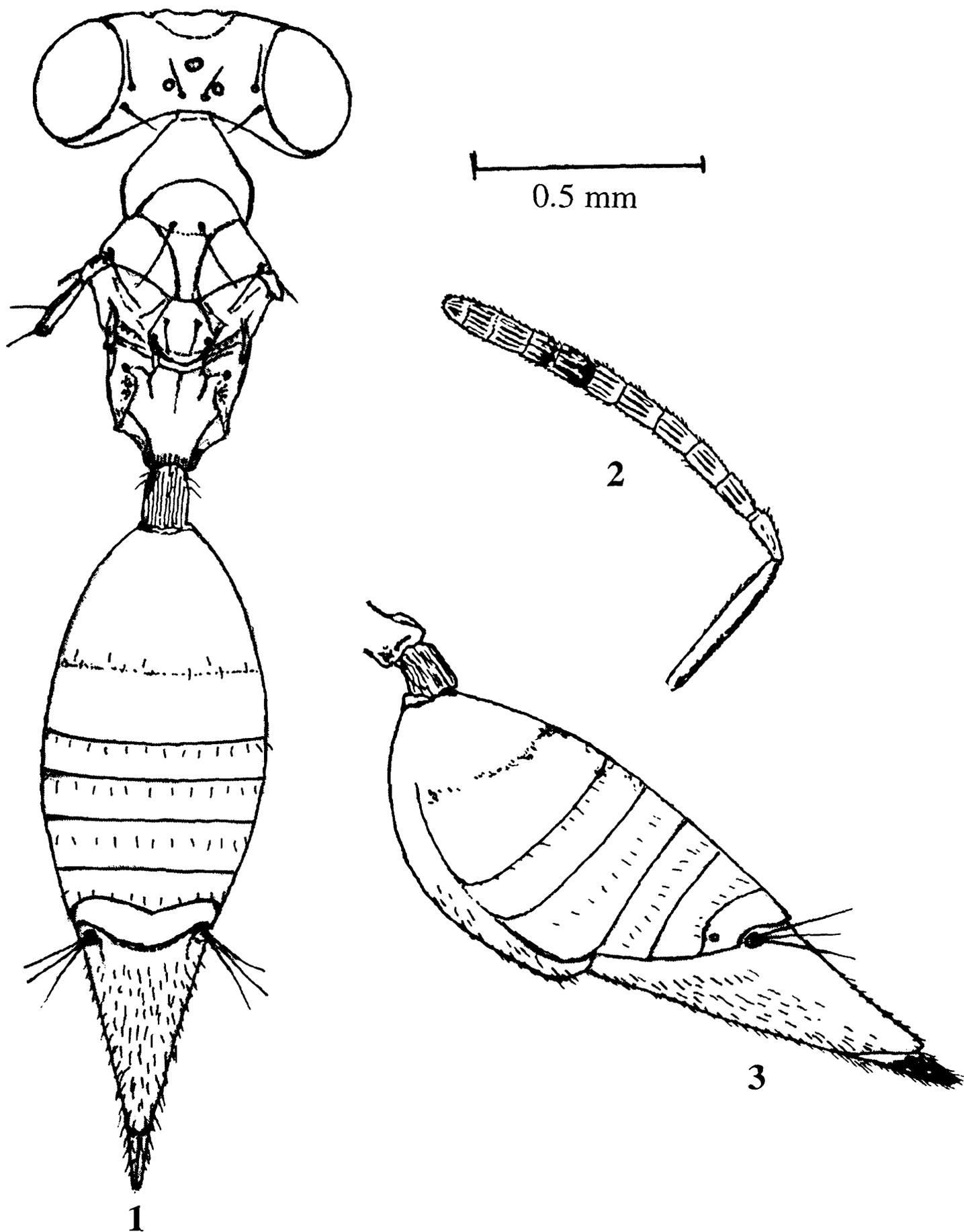
*Department of Zoology, University of Calicut, Kerala-673 635, India

brownish yellow, scape slightly brownish, F5 completely brown; tip of F4 and base of F6 slightly brown, club whitish yellow. Fore and hind coxae yellowish white, mid coxae pale brown, remainder of legs pale brownish yellow; gaster brown except basal 2/3 of T1 and epipygium brownish yellow, petiole yellowish white with base and apex brownish; tegulae yellowish white, wing stump brown, bristles dark brown.

Head : (Fig. 1) Face moderately reticulate on lower part up to middle including scrobal cavity, upper face and vertex almost shiny; reticulation finer on gena; malar grooves distinct; clypeus a little wider than long, a little raised, anterior margin straight, paraclypeal area and area just above clypeus a little raised; tips of mandibles dark brown. Head, in front view, 1.2x as wide as long; scrobe deep, not reaching median ocellus; parascrobal area transversely striate reticulate; toruli wide apart, separated by 2x their individual diameter; malar space 0.33x eye height (in profile); eye length 1.4x width. In dorsal view head width 2.1x height; OOL almost as long as POL; vertex with 3 pairs of setae, abruptly ending posteriorly, temple very narrow. Antennae (Fig. 2) inserted almost level with lower margins of eyes, formula 11173; scape as long as eye; pedicel plus flagellum length 1.62 x head width in dorsal view; pedicel slightly longer than F1, F2-F5 almost equal in length and each a little shorter than F1; F6 a little shorter than F5 which is equal to F7; club three segmented, as long as 3 preceding segments combined.

Thorax : (Fig. 1) Pronotum very finely reticulate, almost shiny, 2x as wide as long (in dorsal view), collar anteriorly with fine but distinct carina. Mesoscutum 1.54x as broad as long, anterior part with a semicircular smooth yellow area, upper part of side lobes transversely reticulate, rest of the parts almost shiny, notauli complete, converging posteriorly, mesoscutum with 2 pairs of long setae, one on median lobe above middle in the yellow area, the other on lower outer corner of scapulae. Scutellum raised, medially half as long as mesoscutum with 2 pairs of short setae, finely reticulate, except on frenal area finely and longitudinally striate. Propodeum almost completely shiny, with very faint longitudinal striations, plicae incomplete, reaching only up to one third length, median carina weakly indicated up to 3/4 length (visible in certain reflection of light); lateral margins of nucha represented in the form of a fine brown carinae on either side, which connect with another short carinae running from below laterally; propodeum medially slightly shorter than mesoscutum. Mesopleuron almost shiny, pleural line represented in the form of a shallow groove with several short transverse carinulae. Metapleuron shiny. Prepectus shiny. Forewing stump very short, only a little longer than tegula with 2 long setae. Tegulae with one short seta. Hind coxa transversely striate, fore and mid coxae also with slight indication of transverse striae. Relative lengths of hind coxa 17, femur 25, tibia 30, tarsi 21.

Gaster : (Figs. 1, 3) Elongated, smooth, 3x as long as wide in dorsal view, length (including petiole) 2x as long as thorax; petiole 1.2x as long as wide in dorsal view, longitudinally striate and minutely reticulate, basally with two fine backwardly directed hairs on each side; circus with 3



Figs. 1-3. : *Dipara intermedia* sp. nov. (female).
1. Body in dorsal view; 2. Antenna; 3. Gaster in profile.

long setae; T1 as long as T2-T5 combined (in dorsal view); epipygium 2x as long as wide dorsally; ovipositor sheath 0.3x as long as epipygium dorsally; hypopygium reaching almost half length of gaster, upto hind margin of T3.

Material examined : Holotype : Female : SRI LANKA : Central province, Kandy district, Hantana Mt. N 7°15' E 80°37', 10-14.vii.1999 (in pan trap), coll. M. & J. Wasbauer (in Bohart Museum of Entomology, University of California).

Etymology : The species is named after its morphology, which is intermediate between the two closely related Indian species.

Remarks : The new species shows an intermediate set of characters in between the species *Dipara mohanae* Narendran & Sureshan and *Dipara keralensis* Narendran & Sureshan. From both the above species it can be readily separated by the characters given in the key.

**Key to the species of *Dipara* Walker from the Indian subcontinent
(modified from Narendran & Sureshan (2001))**

1. Macropterous; mesoscutal bristles nearer to the middle of scutum in the upper half; scutellum with frenal area broad, almost half of the length of scutellum; frenal line almost in the center; propodeum without median carina *Dipara miniae* Narendran & Sureshan
- Subapterous; mesoscutal bristles above middle of scutum in the upper half; scutellum with frenal area narrow, frenal line far behind, close to hind margin; propodeum with distinct or weak median carina 2
2. Propodeum with basomedial area between the plicae conically elevated up to middle; surface of propodeum with longitudinal striations, not shiny; wing stump long, extending well beyond the hind margin of scutellum, touching base of petiole and with 5 or 6 bristles 3
- Propodeum with basomedial area between the plicae not elevated, surface almost shiny with very weak striations; wing stumps short, not reaching much beyond hind margin of scutellum and with only 2 setae *Dipara intermedia* sp. nov.
3. Upper face and vertex distinctly reticulate, size 2.6 mm; POL equal to OOL; antenna with F6 and F7 whitish yellow as club; F2-F5 dark brown, wing stump with 5 bristles; hind coxae reticulate *Dipara keralensis* Narendran & Sureshan
- Upper face and vertex almost shiny, only weakly reticulate, size 1.5 mm; POL little shorter than OOL (0.83x); only F7 whitish yellow as club; F3-F6 brown; wing stump with 6 bristles; hind coxae striate reticulate *Dipara mohanae* Narendran & Sureshan

ACKNOWLEDGEMENTS

The first author is grateful to Dr. J. R. B. Alfred, Director, Zoological Survey of India, Kolkatta and the Officers-in-charge, Zoological Survey of India, Western Regional Station, Pune and Estuarine Biological Station, Berhampur for providing facilities and encouragement. We are also grateful to Dr. Steven L. Heydon, Bohart Museum, University of California, USA, for providing the specimen on loan.

REFERENCES

- Boucek, Z. 1988. Australasian Chalcidoidea (Hymenoptera) CAB international, Wallingford, U.K. pp. 832.
- Boucek, Z., Subba Rao, B. R. and Farooqi, S. I. (1979). A preliminary review of Pteromalidae (Hymenoptera) of India and adjacent countries. *Oriental Ins.*, **12**(4) : 433-468.
- Narendran, T. C. and Sureshan, P. M. (2001). Descriptions of three new species of *Dipara* Walker (Hymenoptera : Pteromalidae) from India. *Zoos' print journal*, **16**(4) : 451-456.
- Noyes, J. S. 2001. Interactive catalogue of the world. Chalcidoidea. (CD). Dickys. s. Yu. Bentall centre. Canada.