

A NEW SPECIES OF *METAPONE* FOREL FROM NICOBAR ISLANDS  
(HYMENOPTERA : FORMICIDAE : MYRMICINAE)

By

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(With 1 Figure)

INTRODUCTION

The genus *Metapone* was established by Forel (1911) based on an ant from Sri Lanka. He designated *M. greeni* as type-species, under a new tribe Metaponini, provisionally under a new subfamily Promyrmicinae. This genus was considered having peculiar ponerine habits, showing close resemblance to *Cylindromyrmix* and *Simopone* on one hand and *Sima* on the other. A year later, Emery (1912) examined the type (*M. greeni*) and its larva and found that it has typical characters of Myrmicinae, which are not found in ponerine larva, hence *Metapone* is a true myrmicine ant.

Wheeler (1919) accepted Emery's opinion, but did not agree in accepting Forel's "Promyrmicinae" term. There is, in fact nothing primitive or ancestral about *Metapone*, but rather its characters are highly specialized and secondary, e.g. the shape of antennae, specially the reduction of antennal segments in male and female, reduction of palpal segments, simplified venation of the fore wings, peculiar structure of petiolar nodes and legs, and the vestigial condition of the eyes in workers.

This moderate sized ant of subfamily Myrmicinae (Family Formicidae) is mainly Indo-Australian in distribution, and it is also reported from Madagascar and Micronesia.

The following species are referable to this genus : *M. bakeri* Wheeler, 1916 from Philippines ; *M. emersoni* Gregg, 1958, Madagascar ; *M. gracilis* Wheeler, 1935, Philippines ; *M. greeni* Forel, 1911, Sri Lanka ; *M. hewitti* Wheeler, 1919, Borneo ; *M. Jacobsoni* Crawley, 1924, Sumatra ; *M. Johni* Karavaiev, 1933, Sri Lanka ; *M. Krombeini* Smith, 1947, New Guinea ; *M. madagascarica* Gregg, 1958, Madagascar ; *M. mjobargi* Forel, 1915, Australia : Queensland ; *M. sauteri* Forel, 1912, Taiwan ; *M. tricolor* McAreavey, 1949, Australia : New South Wales ; *M. truki* Smith (M. R.), 1953, Micronesia (Wheeler, 1919, Gregg, 1958).

In addition one new species is described here from Nicobar Islands in Indian Ocean. This is the first record of this genus from India.

### Genus *Metapone* Forel

*Metapone* Forel, 1911, *Rev. Suisse Zool.*, **19** : 447 ibidem, 1912, **20** : 763.

Type-species : *Metapone greeni* Forel. Original designation.

This genus is mainly characterized by having scrobed head, 11-jointed antennae, one jointed maxillary and 3-jointed labial palpi, terminally spinose or dentate middle and hind tibiae, and metatarsi.

*Worker* : Head subrectangular scrobed, nearly one and half times as long as broad. One jointed maxillary and 3-jointed labial palpi. Eyes small and elongate. Mandibles 4 to 5 toothed, with a large basal lobe. Ocellar pits present, ocelli absent. Clypeus large, with subrectangular anterior lobe. Scape reaching to the middle of the head, flattened and apically much dilated, funiculus dilated and clubbed. Antennae 11-segmented. Dorsum of alitrunk oblong, somewhat flattened above, submargined on the sides. Promesonotal suture very indistinct and mesoepinotal suture impressed. Petiolar node subcuboidal, rather flat above, widened behind, truncated at their ends, anteriorly with a short peduncle and its ventral surface with a large longitudinal lobe, followed by a strong tooth. Postpetiolar node broader and shorter than the petiolar node bearing on its ventral side a large tooth. Gaster oval. Femora greatly dilated. Tibiae and metatarsi short and broad.

### *Metapone nicobarensis*, sp. nov.

(Fig. 1, a-c)

This species is close to *Metapone leae* Wheeler, by having body 6.1-6.6 mm long, mandible with 5 teeth, petiolar nodes mammalian vertebrae-like and female with similar wing venation, but it differs by having a distinct pointed ventral tooth on petiolar node, postpetiolar node finely longitudinally striate and with scattered punctures ; apical tooth of mandible larger than the others ; first segment of the gaster with weak scattered punctures and the female without a distinct median longitudinal groove on head.

*Holotype worker* : Body length 6.1 mm ; HL (head length) 1.4 mm ; HW (head width) 1.05 mm ; SL (Scape length) .38 mm ; CI (cephalic index) 75 ; SI (scape index) 36 ; PW (pronotum width) .59 mm ; PNL (petiolar node length) .5 mm ; PPNL (postpetiolar node length) .42 mm ; PH (petiole height) .84 mm ; PPH (postpetiole height) .63 mm ; DPW

(dorsal petiolar width) .56 mm ; DPPW (dorsal postpetiolar width) .59 mm ; PNI (petiolar node index) 94 ; PPNI (postpetiolar node index) 100 ; LPI (lateral petiolar index) 59 ; LPPI (lateral postpetiolar index) 50 ; Measurements of paratype worker similar to holotype.

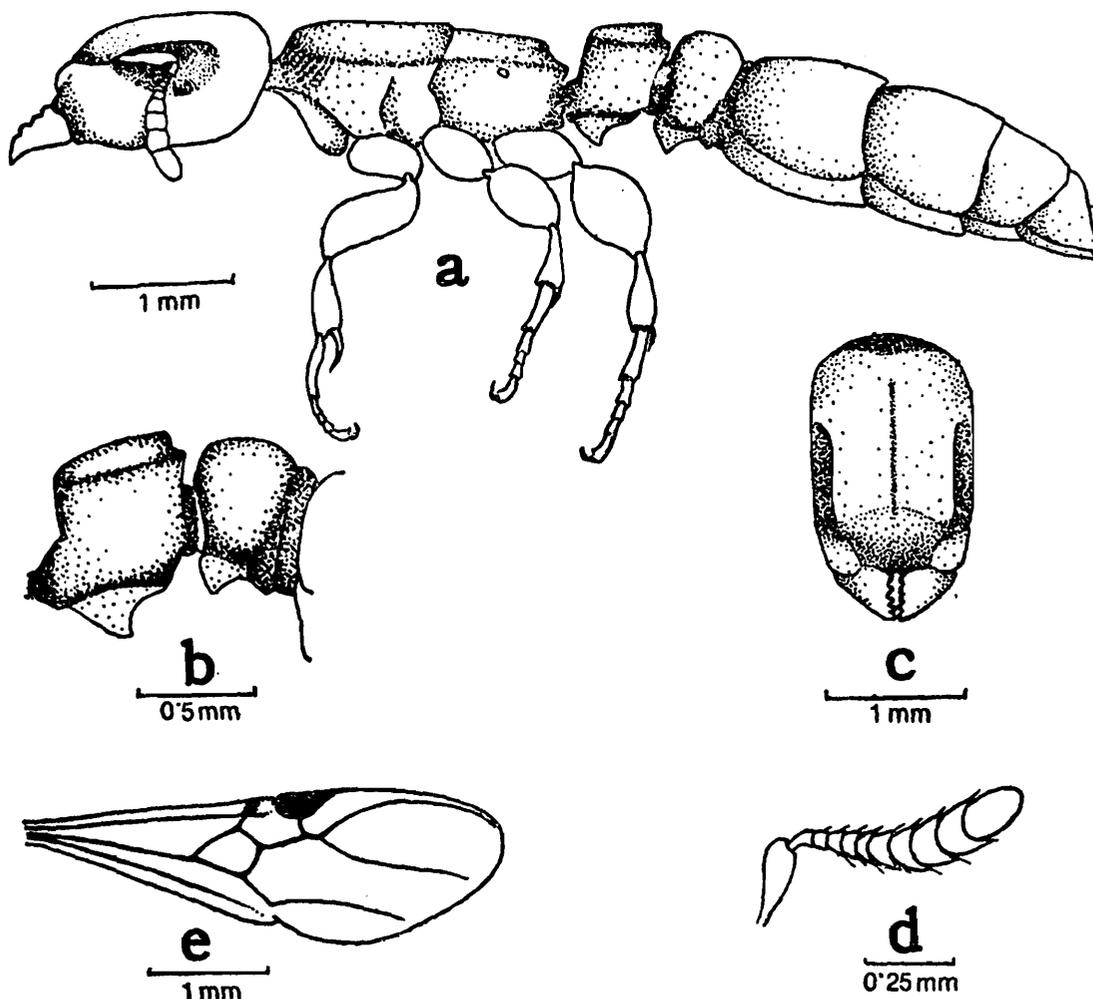


Fig. 1. (a-e) *Metapone nicobarensis* sp. nov. ; (a) body, lateral view ; (b) petiolar nodes, enlarged view ; (c) head, front view ; (d) antenna, enlarged view ; (e) forewing of female.

Head subrectangular, about 1.4x as long as wide, sides of the head straight, posterior border of the head weakly concave. Head and alitrunk in general uniformly finely longitudinally striated ; head subpolished, sparsely and coarsely punctate, posteriorly tending to be smooth, with a median longitudinal groove. Mandibles stout, their outer borders curved, the apical border oblique, with 5 teeth ; apical tooth largest in size, striatopunctate, basally sparsely punctate. Eyes small, roundish, situated at the lower posterior border of the scrobe. Clypeus rectangular, little narrow in front, raised laterally and continuous with the frontal carinae, separated behind from the head by a suture, with weak anterio-median lobe. Antennae short, flattened, scape elliptical, about 3.5x as long as broad ; funiculus flattened with distinct 3-segmented club ; first segment of the funiculus longer than broad, segments 2-7 small, apical

segment about as long as the preceding two segments taken together. Striae on the pro- and mesonotum almost as strong as on the head, tending to be weaker towards the apex of the propodeum. Petiolar nodes and gaster shiny, petiolar nodes with moderate sized sparse punctures, gaster with weak scattered punctures. Legs smooth and shiny. Alitrunk oblong, about 2.5x longer than its width, a little narrower than the head, broad anteriorly and slightly narrowed behind, the antero-lateral angles of the pronotum rounded, posteriorly at sides almost straight. Propodeum when seen dorsally, forms a gentle slope at its posterior margin. Petiolar node anteriorly as broad as propodeum, gradually widening posteriorly, with lateral blunt teeth, in dorsal view anteriorly convex, posteriorly concave, subpetiolar process stout, backwardly directed, triangular, keel-shaped, lamellate. Postpetiolar node weakly convex, a little narrow anteriorly, subpostpetiolar process with one large and one small, downwardly directed triangular tooth-like projection. Gaster oval, its first segment larger than others, sting long and stout; legs short, flattened, all the femora very broad, elliptical, apical margins of middle and hind tibiae and metatarsal segments dentate.

Body reddish-brown, except alitrunk in front and at sides blackish. Pubescence whitish-yellow, hairs moderately long and sparse; Legs with moderately thick bristle-like hairs.

*Paratype female* : Essentially similar to worker, except as follows :

Body length 8.6 mm; HL 1.26 mm; HW .91 mm; SL .31 mm; CI 72; SI 35; PW .7 mm; PNL .56 mm; PPNL .49 mm; PH .56 mm; PPH .56 mm; DPW .49 mm; DPPW .59 mm; PNI 70; PPNI 84; LPI 100; PPI 87. Head rectangular in shape without distinct median groove, its surface with moderately strong longitudinal striations and moderately deep punctures in between the striae. Eyes oval, placed on the postero-lateral side of the head, about 1.4x as long as the length of the scape. Three ocelli present. Pronotal humeri present. Scutellum broader than long, transverse at base with lateral raised margins. Pro- and mesonotum with deep and longitudinal striations. Petiolar node vertebrae-like, its base as broad as propodum and about as long as its apical width; its lateral angular process acute; the posterior corners produced in the form of two long divergent conical teeth, posterior margin evenly concave. Petiolar node with fine somewhat concentric transverse striations and moderate sized sparse punctures. Postpetiolar node oval in shape, slightly broader than long, with fine and dense longitudinal striations and coarse shallow punctures. Gaster long tubular, broader at base, gradually narrowing towards the apex, its

first segment longer than broad. First tergite mat with sparse shallow setiferous punctures ; following tergites mat and subpolished. Legs short, with posterior tibiae and metatarsi apically dentate.

*Holotype worker* and *paratypes* 1 worker & 2 females, INDIA : Nicobar Is : Rajendra Nagar, 30.xii.1975, P. K. Maity and party (Z. S. I. Calcutta).

#### SUMMARY

This paper deals with the description of a new species of ants, viz., *Metapone nicobarensis* sp. nov. from Nicobar Islands in Indian Ocean. This is the first record of the genus from Indian region.

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