DISCOVERY OF THE WORKER CASTE OF PLATYTHYREAE CLYPEATA FOREL AND A NEW SPECIES OF PROBOLOMYRMEX MAYR IN YUNNAN, CHINA (HYMENOPTERA: FORMICIDAE)*

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Abstract
The worker caste of the ant species Platthyrea clypeata Forel is discovered and described for the first time. The genus Platthyrea Roger and the species P. clypeata Forel are newly recorded in China. Two species of the genus Probolomyrme Mayr are recorded in China; P. longinodus Terayama et Ogata from Taiwan Province, and P. longiscapus sp. nov. from Yunnan Province.

Key words
Formicidae, Platthyrea, Probolomyrme, new species

The ant genus Platthyrea Roger is distributed over the world tropics, 38 species of the genus were described in the world (Bolton 1995), among them 12 species were reported from Indo-Australian (Brown 1975). Brown (1975) had a revision of the genus. In this study, the worker caste of Platthyrea clypeata Forel is discovered in Xishuangbanna Nature Reserve of Yunnan Province and described for the first time. The genus Platthyrea Roger and the species P. clypeata Forel are newly recorded in China.

The genus Probolomyrme Mayr is distributed over the world tropics and Japan, 13 species of the genus were known in the world (Bolton, 1995), among them 7 species were reported in South and Southeast Asia. Taylor (1965) had a monographic revision of the genus and 9 species were treated. Terayama (1990) reported P. longinodus Terayama et Ogata in Taiwan Province and the genus were recorded in China for the first time. In this study, a new species of the genus is described from Xishuangbanna Nature Reserve of Yunnan Province, which becomes the second Chinese species of Probolomyrme.

Standard measurements and indices are as defined in Holldobler et al. (1990): TL = total length, HL = head length, HW = head width, CI = cephalic index, SL = scape length, SI = scape index, PW = pronotal width, AL = alitrunk length, ED = maximum diameter of eye, ML = mandibular length, PNL = petiolar node length, PNW = petiolar node width, PH = petiole height. All measurements are expressed in mm.

The type specimens are deposited in The Insect Collection, Faculty of Resources, Southwest Forestry College, Kunming, Yunnan Province, P. R. China.

Platthyrea Roger, New Record in China

Platthyrea Roger, 1863, Berlin. Entomol. Zeitschr., 7: 172. Type-species:

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Pachycondyla punctata Smith, by subsequent designation of Bingham, 1903: 73.
Range: World tropics.

**Platythyrea clypeata** Forel, New record in China (Figs. 1—3)


Forel (1911) described *P. clypeata* from Southeast Asia based on queen caste. Another species *P. thwaitesi* Donisthorpe, which was revised as a junior synonym of *P. clypeata* by Brown, was also described on queen caste. So only queen caste of *P. clypeata* was known before this study. During the course of study on bio-diversity of ants of Xishuangbanna Nature Reserve, the worker caste of *P. clypeata* was discovered for the first time. The single worker well conformed to *P. clypeata* according to the key and figures of Brown (1975) although with the following difference: the worker caste with petiolar node slender and roundly convex at apex, petiole and gaster blackish brown. A full description is provided for the worker caste as below.

Worker: TL 8.7, HL 1.90, HW 1.20, CI 63, SL 1.93, SI 161, PW 1.10, AL 3.00, ED 0.23, ML 0.67, PNL 1.07, PNW 0.53, PH 0.70 (1 measured). Head roughly rectangular, longer than broad, weakly narrowed backward. In full-face view occipital margin almost straight, slightly emarginate in the center. Occipital corners blunt. Lateral sides of head weakly convex. Mandible with 8 teeth. Clypeus convex, anterior margin extruded as a blunt angle in the middle. Eyes flat. Antennae long, scape surpassed occipital corner by about 1/4 of its length. In profile view dorsum of alitrunk at the same level, promesonotal suture distinct, metanotal groove absent. Dorsum of propodeum longer than declivity, posterodorsal corner of propodeum rounded. Propodeal spiracle seam-like. In profile view petiolar node longer than high, the node inclined backward, anterodorsal corner rounded, posterodorsal corner formed an acute angle. In dorsal view the node rectangular, about 2 times as long as broad, posterior border complete and rounded. Subpetioar process low and rounded at apex. Constriction between the two basal segments of gaster indistinct. Body surface finely shagreened and sparsely punctured. Dorsum of head and body and appendages without hairs, but with dense depressed pubescence. Body in color brown, petiole and gaster blackish brown, flagella and tarsi yellowish brown.

Material examined: 1 worker, No. A97—2318, 1280m, Papo Village, Meng' a Town, Menghai County, Yunnan Province, collected from a ground sample of secondary monsoon evergreen broad-leaf forest, Sep. 10, 1997 (XU Zheng-hui).

Distribution: China (Yunnan Province); Sri Lanka; Southeast Asia.

**Key to species of Probolomyrmex of China based on worker caste**
- Apex of scape reach to posterior 1/4 of head length, SI 117. Propodeal teeth smaller. In dorsal view petiolar node not narrowed backward (Figs. 6—8) (China; Taiwan Province; Japan) ..............................................
  .......................................................... *P. longinosus* Terayama et Ogata
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- Apex of scape almost reached to occipital margin, SI 133—136. Propodeal teeth larger. In dorsal view petiolar node narrowed backward (Figs. 9—11) (China; Yunnan Province) .......... *P. longiscapus* sp. nov.
Figs. 1—11  Workers and queen of Platystyrea and Probolomyrmex.
**Probolomyrmex longiscapus** sp. nov. (Figs. 9—11)

Holotype worker: TL 3.0, HL 0.70, HW 0.45, CI 64, SL 0.60, SI 133, PW 0.36, AL 0.96, PNL 0.38, PW 0.20, PH 0.26. Head distinctly longer than broad, anterior 1/4 narrowed obviously. Occipital margin nearly straight, very shallowly emarginate, occipital corner blunt. Lateral sides of head evenly convex. Anterior margin of clypeus convex. Frontal carinae erect, close to each other and parallel for most of their length, anterior apices reached to anterior margin of clypeus. Apex of scape almost reached to occipital margin. Antennal segments 3—6 about as broad as long, segments 7—11 broader than long. In full-face view mandibles invisible. In profile view dorsum of alitrunk straight, promesonotal suture and metanotal groove absent. Propodeum with a pair of triangular teeth, declivity depressed and marginate laterally. In profile view petiolar node longer than high, anterior and dorsal faces formed an even arch, posterodorsal corner formed an acute angle, posterior face depressed and marginate laterally. Ventral face of petiole convex, anteroventral corner with a slender tooth. In dorsal view petiolar node rectangular, lateral sides nearly parallel, posterior 1/3 narrowed backward, posterior border straight. Constriction between the two basal segments of gaster distinct. Surfaces of head and the whole body shagreened. Head and alitrunk weakly and sparsely punctured. Petiole and gaster distinctly punctured. Dorsum of head and body, and appendages without erect hairs, but with dense decumbent short pubescence. Body in color reddish brown.

Paratype worker: TL 2.8, HL 0.70, HW 0.44, CI 63, SL 0.60, SI 136, PW 0.34, AL 0.94, PNL 0.38, PW 0.19, NH 0.24 (n = 1). As holotype.

Holotype: worker, No. A98—537, 820m, Nanqian Village, Mengla County, Yunnan Province, collected from a soil sample of hilly land shrub, Mar. 11 1998 (ZENG Guang). Paratype: 1 worker, with same data as holotype.

This new species is close to *P. longinodus* Terayama et Ogata (Figs. 6—8), but head relatively long (CI = 67 in *P. longinodus*); occipital margin almost straight; scape much longer (SI = 117 in *P. longinodus*), apex almost reached to occipital margin; propodeal teeth larger; in dorsal view posterior 1/3 of petiolar node narrowed backward.

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角唇宽猛蚁工蚁的发现及中国云南小盲猛蚁属一新种记述（膜翅目：蚁科）
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首次发现并描述角唇宽猛蚁 Platythrya clypeata Forel 的工蚁。宽猛蚁属 Platythrya Roger 和角唇宽猛蚁 P. clypeata Forel 为中国新记录属种。在中国记载小盲猛蚁属 Probolomyrmex Mayr 2 种：长结小盲猛蚁 P. longinodus Terayama et Ogata 分布于台湾省，长柄小盲猛蚁 P. longiscapus sp. nov. 新种分布于云南省。

关键词 蚁科 宽猛蚁属 小盲猛蚁属 新种