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A NEW SPECIES OF THE GENUS *GNAMPTOGENYS* (HYMENOPTERA: FORMICIDAE: PONERINAE) FROM SOUTHWESTERN CHINA

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Abstract A new ant species *Gnamptogenys bannana* sp. nov. from Southwestern China is described. It close to *G. bicolor* (Emery), but the former with its occipital corners of the head elongating into lobe-like processes posteriorly; head, alitrunk, petiole and first gastric segment with coarse foveolae; dorsal surfaces of tibiae with suberect hairs but without pubescences; head and legs black. A key to species of the genus *Gnamptogenys* from China is provided.

Key words: Hymenoptera, Formicidae, *Gnamptogenys*, new species, China

Introduction

The genus *Gnamptogenys* was erected by Roger in 1863. Brown revised the genus in 1958. 24 species were recorded in the old World. Up to date, four species of the genus were reported in China, namely *G. bicolor* (Emery), *G. taivanensis* (Wheeler), *G. panda* (Brown) and *G. sinensis* Wu et Xiao. When we study the ant fauna of Southwestern China, a new species is discovered. The type specimens are deposited in the Insect Collection, Institute of Zoology, Shaanxi Normal University, Xi'an, China. A key to species of the genus from China is provided.

Standard measurements and indices are as defined in Brown (1975): Total length (TL), Head length (HL), Head width (HW), Cephalic index (CI = HW × 100/HL), Scape length (SL), Scape index (SI = SL × 100/HW), Pronotum width (PW), Alitrunk length (AL), Maximum diameter of eye (ED), Mandible length (ML), Petiolar node length (NL), Petiolar node width (NW). All measurements are expressed in millimeters.

Gnamptogenys bannana, sp. nov. (figs. 1～7)

Holotype worker. TL 6.0, HL 1.38, HW 1.13, CI 82, SL 1.18, SI 104, PW 1.00, AL 1.98, ED 0.29, ML 0.70, NL 0.60, NW 0.68.

Head longer than broad, narrowering anteriorly; the occipital corners elongate posteriorly into lobe-like processes; the occipital margin deeply concave. Eyes large and prominent, situated behind the middle line of the head. Mandibles elongately triangular, finely longitudinally rugose, with the apex strongly curving down; the masticatory margin with numerous minute teeth. Clypeus low and flat, the anterior margin bluntly angled. Frontal area weakly defined. Frontal carinae strong, expanding laterally and covering the insertions of

the antennae; parallel with each other and extending backward to the anterior margins of the eyes, with the ends incurved. Antennae with 12 segments, scapes extending backward just to the apices of the elongate occipital corners; flagellum incrassite toward apex. In profile view, the dorsal surface of alitrunk forming a complete arch, lowering down posteriorly. Promesonotal suture and metanotal groove inconspicuous on the dorsal surface. Pronotum forming a groove on each side of its anterior face to recept the elongate lobes of the occipital corners. Propodeum with a pair of blunt teeth at apex; the apical face depressed. Hind coxa with a strong blunt spine on the upper surface. Each tibia with a pectinate spur; claw with a subbasal tooth. Petiolar node low, paniform; subpetiolar process large, lamelliform, with a tooth-like anteroventral process; in dorsal view the node broader than long, narrowering forward. Gaster with a curved transverse ridge anteroventrally; the two basal segments very large, with distinct constriction between them; the second one strongly curved downward; sting exerted. Head, alitrunk, petiole and first gastric segment with coarse foveolae; clypeus longitudinally striate; anterior dorsal surface of the head with coarse striations. Central portion of the first, and the other gastric segments smooth and shining; a few foveolae are present on the lateral surfaces of the second segment. Dorsal surfaces of head and body with abundant erect or suberect hairs. Flagellum of antennae, margins of alitrunk and petiole, coxae, and apex of gaster with dense pubescences. Dorsal surfaces of scapes and hind tibiae with abundant suberect hairs; furthermore, a few suberect long hairs present on the scapes. Head, femurs and tibiae of legs, and gaster black; anterior portion of head, mandibles, antennae, alitrunk, coxae and tarsi of legs, petiole and apex of the gaster reddish brown.

Paratype workers. TL 4.6-6.3, HL 1.23-1.50, HW 0.96-1.20, CI 77-82, SL 1.03-1.20, SI 100-108, PW 0.83-1.08, AL 1.68-2.03, ED 0.26-0.30, ML 0.65-0.75, NL 0.48-0.60, NW 0.54-0.70(5 measured). As holotype.

Holotype worker, China: Menglun Town(21.9°N, 101.2°E), 560m, Yunnan Prov., 15—Ⅷ—1989, NO. A89-1(Niu Yao).

Paratypes: 5 workers, with same data as for holotype.

G. bannana is close to *G. bicolor* (Emery), but the former with the occipital corners of head elongate as lobe-like processes posteriorly; head, alitrunk, petiole and first gastric segment with coarse foveolae; dorsal surfaces of tibiae with suberect hairs but without pubescences; head and legs black.

Key to Species of *Gnamptogenys* from China

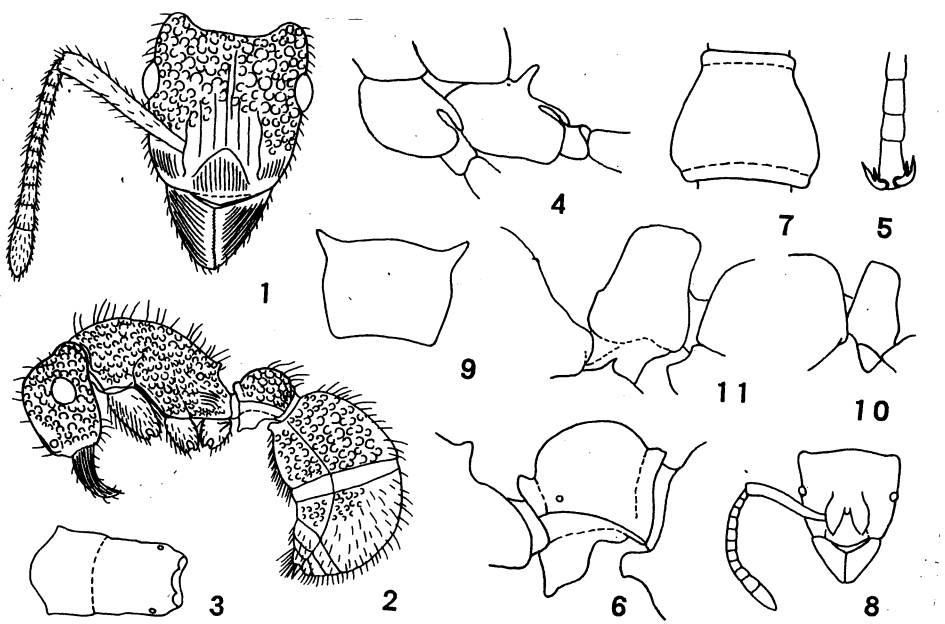
1. Petiolar node anteroposteriorly compressed, excluding ventral process, higher than long, with steep, high anterior and posterior faces(Figs. 10～11) ……2
   Petiolar node low, paniform, gently rounded above, longer than high, excluding ventral process (Fig. 6) …… 4
2. Humeral angles of pronotum with a pair of long teeth; color dark ferruginous brown(Figs. 8～10) (Hunan Prov.) …… *G. sinensis* Wu et Xiao
   Humeral angles of pronotum without long teeth …… 3
3. Gastric dorsum with fine, irregular interpunctural sculpture developed and reaching even to the center of the second gastric tergum, rendering the surface more opaque; color reddish brown; in lateral view, posterior occipital corner terminating in a distinct point or lobe(Fig. 11) (Si-

chuan and Hunan Prov.) ..... *G. panda* (Brown)

Gastric dorsum with interpunctural space smoother, more shining, especially the disc of the second tergum; color blackisk brown; in lateral view, posterior occipital corner evenly rounded, without lobe or point (Taiwan Prov.) ..... *G. taivanensis* (Wheeler)

4. Head, alitrunk, petiole and first gastric segment coarsely punctured, the punctures confluent on the dorsum of alitrunk and forming short longitudinal furrows bounded by sharp carinated striae; occipital corners of head without elongate lobes; head, alitrunk, legs and petiole ferruginous red, gaster black (Hainan Prov. and Hong Kong; S. E. Asia to Java) ..... *G. bicolor* (Emery)

Head, alitrunk, petiole and first gastric segment with coarse foveolae; occipital corner of head terminating in an elongate lobe; head, femurs and tibiae of legs, and gaster black; antennae, mandibles, alitrunk and petiole reddish brown (Figs. 1～7) (Yunnan Prov.) ..... *G. bannana* Xu et Zhang, sp. nov.



Figs. 1～11 *Gnamptogenys* worker. 1～7. *G. bannana*. 1. head; 2. body profile; 3. alitrunk (dorsal); . 4. hind coxa (anterolateral); 5. claw; 6. petiole (profile); 7. petiole (dorsal). 8～10. *G. sinensis*. 8. head; 9. pronotum (dorsal); 10. petiole (profile). 11. *G. panda*. petiole (profile). Pilosity and sculpture omited from 3～11. (8～10 after Wu et Xiao; 11 after Brown)

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中国西南地区曲颊猛蚁属一新种

(膜翅目:蚁科:猛蚁亚科)

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本文记述中国西南地区曲颊猛蚁属 *Gnamptogenys* Roger 1新种——版纳曲颊猛蚁 *G. bannana*, sp. nov.,本新种与双色曲颊猛蚁 *G. bicolor* (Emery)接近,但前者后头角向后延长成叶状突;头、胸、腹柄和腹部第1节具粗糙窝状刻纹;头和足黑色。文中提供了该属中国已知5种的检索表。模式标本保存于陕西师范大学动物研究所昆虫标本室。

关键词 膜翅目 蚁科 曲颊猛蚁属 新种 中国