

A TAXONOMIC STUDY ON THE ANT GENUS PHEIDOLOGETON MAYR (HYMENOPTERA, FORMICIDAE, MYRMICINAE) FROM CHINA

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Abstract Ten species and three subspecies of the ant genus *Pheidologeton* Mayr are treated in the paper. One of them is described as new to science, i. e. *P. zengchengensis* sp. nov. A key based on major worker caste to the known Chinese species of the genus is presented.

Key words Hymenoptera, Formicidae, *Pheidologeton*, taxonomy, China.

The ant genus *Pheidologeton*, was established by Mayr in 1862 based on the type species *Oecodoma diversa* Jerdon (= *Pheidologeton diversus* (Jerdon)). The genus consists of 27 species, 16 subspecies and 2 fossil species in the world (Bolton, 1995), most species distributed in the Indo-Australian, Oriental and Afrotropical regions. The first Chinese species of the genus, *P. vespillo*, was described by Wheeler in 1921, then in 1930 he reported 3 species and 3 subspecies, i. e. *P. affinis*, *P. diversus*, *P. vespillo*, *P. diversus* subsp. *draco*, *P. diversus* subsp. *fictus*, and *P. diversus* subsp. *laotinus*. Chou and Terayama recorded 4 species and 1 subspecies in Taiwan, added 2 species, i. e. *P. dentiviris* and *P. yanoi*, to Chinese ant fauna except the species and subspecies known in the mainland. While the species *P. dentiviris* was doubtful because it was described by Forel on the male only in 1913. Emery suggested that *P. dentiviris* was probably the male of *P. yanoi*, Wheeler suggested that it did not even belong to the genus *Pheidologeton*. Li and Tang described a species *P. nanningensis* from Guangxi in 1986. Zhou and Zheng studied the genus in Guangxi and described 3 species, i. e. *P. melasolenus*, *P. latinodus* and *P. trechideros* in 1997. When we studied the ants deposited in the Insect Collection of Zhongshan University, a new species was found. Ten species and three subspecies are recorded in China up to date. A key based on major worker caste to the known Chinese species and subspecies of the genus is given except for an uncertain species, *P. dentiviris* Forel.

The measurements and indices used in the paper are as defined by Bolton (1995): TL (Total Length),

HL (Head Length), HW (Head Width), CI (Cephalic Index = $HW \times 100 / HL$), SL (Scape Length), SI (Scape Index = $SL \times 100 / HW$), PW (Pronotal Width), AL (Alitrunk Length). All measurements are expressed in mm.

Key to the known species of the genus *Pheidologeton* Mayr in China (Based on major worker caste)

1. Propodeal spines long, longer than, or at least more than half of the distance between the base of the two spines 2
Propodeal spines short, less than 1/3 length of the distance between the base of the two spines 8
2. The maximum workers with their total length 10 to 11 mm
..... *P. diversus* subsp. *fictus* Forel
The maximum workers with their total length more than 14 mm ...
..... 3
3. Head transversely striate in front
..... *P. diversus* subsp. *laotinus* Santschi
Head longitudinally striate in front 4
4. Occipital lobes of head longitudinally striate
..... *P. diversus* subsp. *draco* Shantschi
Occipital lobes of head transversely striate 5
5. Propodeal spines curved forward and inclined *P. yanoi* Forel
Propodeal spines directly backward or erect 6
6. Propodeal spines backward, mesoscutellum slightly convex, with 8 yellow hairs *P. nanningensis* Li et Tang
Propodeal spines erect, mesoscutellum very convex, with more than 10 yellow hairs 7
7. Front of head bearing a single ocellus; petiolar node with its upper border concave; color dark chestnut-brown; body very coarsely striate
..... *P. diversus* (Jerdon)
Front of head without ocellus; petiolar node not concave on its upper border; color chestnut-brown but lighter; striation on body much finer
..... *P. affinis* (Jerdon)
8. Head and body smooth and shining in most part 9
Head and body coarsely striate 11
9. Propodeal spines laterally compressed; petiolar node broadly rounded above in profile view *P. latinodus* Zhou et Zheng
Propodeal spines thick at base and straight, not compressed; petiolar node narrowed above, more or less triangular in profile view 10

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