

## A NEW SPECIES OF THE ANT GENUS LEPTOTHORAX MAYR (HYMENOPTERA, FORMICIDAE) FROM HUNAN, CHINA

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**Abstract** A new species of the genus *Leptothorax* Mayr, i. e. *L. hengshanensis* sp. nov. was described in this paper. The new species close to *L. braunsi* (Forel) but in profile the posterolateral propodeum angular; in dorsal view petiole node 1.5 times longer than broad; metanotal groove not impressed; gaster smooth and shining, not punctate. Because there was only one known species in the genus lacking propodeal armament before, so this new species can be easily distinguished from other known species.

**Key words** Hymenoptera, Formicidae, *Leptothorax*, new species, China.

*Leptothorax* Mayr is a large genus in the family Formicidae. More than 300 species have been described. The majority of species, 283 species, more than 80 percent in total, are in Neotropical, Nearctic, and Palaearctic Region. 28 species were recorded in Oriental Region (Bolton, 1995; Imai et al., 2003). When we study the ant fauna of Hunan Province, a new species is discovered. Description of the new species is as below. The type specimen is deposited in the Insect Collection, Guangxi Normal University, Guilin, China.

Measurements and indices are as defined in Bolton (1982): TL (total length), HL (head length), HW (head width), CI (cephalic index = HW × 100 / HL), SL (scape length), SI (scape index = SL × 100 / HW), PW (pronotal width), AL (alitrunk length). All measurement are in mm.

*Leptothorax hengshanensis* sp. nov. (Figs. 1-2)

Holotype Worker. TL 2.1, HL 0.56, HW 0.47, CI 83, SL 0.44, SI 93, PW 0.36, AL 0.72. Mandibles longitudinal striae, spaces between striae smooth and shining; its masticatory with 5 teeth which decease in size from apex to base. Median lobe of clypeus prominent, its anterior margin evenly convex. Frontal carinae short, reaching in front of eyes. Antennal scrobes absent. Antennae 12 segments, with 3-segmented apical club. Scapes of antennae relatively long, slightly projecting beyond the occipital margin, SI 93. Eyes moderate large, situated slightly in front of the midlength of the sides of the head, maximum

diameter 0.11 mm, 0.23 times as head width, with 12 ommatidia in the longest row. In full-face view occipital margin convex. Alitrunk convex in profile, promesonotal groove absent, metanotal groove not impressed. Propodeum unarmed, forming a blunt angle between dorsum and declivity. In dorsal view the pronotal corners rounded, pronotum narrowing posteriorly. Petiole node in profile sub-rectangular, in dorsal view 1.5 times longer than broad; postpetiole broader than long and broader than the petiole. Dorsum of head longitudinally rugose, spaces between rugae roughly shegreened, sides of head above and behind eyes punctate, in front of and bellow eyes with cross-meshes. Dorsum of alitrunk irregularly rugose. Sides of mesoplurum and propodeum densely puctate. Dorsum of petiole node irregular rugose, postpetiole and sides of petiole densely puctate. Gaster smooth and shining. Thort stout erect hairs present on dorsum of head, alitrunk, petiole, postpetiole and gaster. Appendages without erect hairs. Color uniform brownish yellow.

Holotype worker, Hengshan Nature Reserve, Hengyang City, Hunan Province, China (200 m). 8 Sep. 2003, HUANG Jian-Hua leg.

This new species close to *L. braunsi* (Forel) (Figs. 4-5) but in profile the posterolateral propodeum angular; in dorsal view petiole node 1.5 times longer than broad; metanotal groove not impressed; gaster smooth and shining, not punctate; color uniform yellowish brown. Besides, the new

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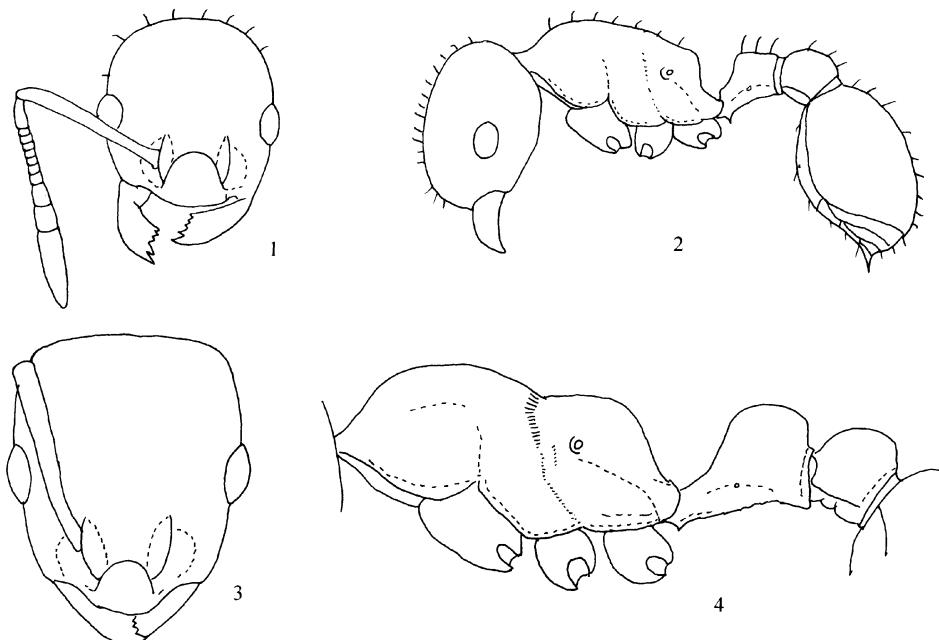
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species much smaller in size than *L. brauni* (Forel), measurements of two species comparison are as in Table 1.

Because there are only two species in the genus lacking propodeal armament, so the new species can be easily distinguished from other known species.

Table 1. Measurements of two *Leptothorax* species comparison.

Species	TL	HL	HW	CI	SL	SI	PW	AL
<i>L. hengshanensis</i> sp. nov.	2.1	0.56	0.47	83	0.44	93	0.36	0.72
<i>L. brauni</i> (Forel)	5.2-5.9	1.20-1.36	1.00-1.16	83-86	0.82-0.94	79-83	0.78-0.96	1.44-1.62



Figs. 1-4. *Leptothorax* workers. 1-2. *L. hengshanensis* sp. nov. 3-4. *L. brauni* (Forel) 1, 3. Head in full-face view. 2, 4. Body in profile view. 3-4. After Bolton.

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## 中国湖南细胸蚁属一新种 (膜翅目, 蚁科)

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**摘要** 描述中国湖南省细胸蚁属 1 新种, 衡山细胸蚁 *Lep-*  
*tothorax hengshanensis* sp. nov.。新种与布朗氏细胸蚁 *L.*  
*brauni* (Forel) 相似, 但并胸腹节侧观后侧呈角形; 背面

观第 1 结节长为宽的 1.5 倍; 并胸腹节缝不凹陷; 后腹部光  
亮, 无刻点。因为本属目前仅有 2 个已知种并腹胸缺刺, 因  
此新种易于与其他已知种区别。

**关键词** 膜翅目, 蚁科, 细胸蚁属, 新种, 中国.

**中图分类号** Q969.554.2