

A NEW SPECIES OF THE ANT GENUS
LIOMETOPUM MAYR FROM GUANGXI, CHINA
(HYMENOPTERA: FORMICIDAE)

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Abstract A new species of the genus *Liometopum* Mayr, *L. minimum* sp. nov., is described. A key based on worker caste is given to the known species of the genus in China.

Key words Hymenoptera, Formicidae, *Liometopum*, new species.

Liometopum Mayr is a small genus in the subfamily Dolichoderinae of the family Formicidae. Eight living species, one subspecies and six fossil species were described in the world (Bolton, 1995). Among them four species and one subspecies distribute over America, two species over Yugoslavia, two species over Baltic Amber. Mexico, Austria, and Russia each has only one species or varieties. Only two species and one variety were recorded in Oriental Region: *L. lingreeni* Forel from India, *L. sinense* Wheeler and *L. sinense* var. *sericatum* Wheeler from China. While we had a biodiversity survey in Guangxi, a new species was discovered.

The type specimens are deposited in the Insect Collection of the Department of Biology, Guangxi Normal University, Guilin.

Standard measurements and indices used in this paper are as follows: HL (head length), HW (head width), SL (scape length), PW (pronotum width), AL (alitrunk length), ED (eye diameter), CI (cephalic index = $HW \times 100 / HL$), SI (scape index = $SL \times 100 / HW$), TL (total length).

Key to the species of *Liometopum* Mayr in China

(Based on worker caste)

1. Small species, TL less than 2.5 mm; mandibles with 5 teeth; pubescence on gastral segments pointed backward (Distribution: Guangxi) *L. minimum* sp. nov.
Larger species, TL more than 3 mm; mandibles with more than 10 teeth; pubescence on the first gastral segment pointed outward, those on second and third segments pointed inward. 2
2. Body reddish; pubescence denser, so that the surface of the gaster is completely concealed (Distribution: Shannxi, Hubei, Hunan, Jiangsu, Shanghai, Zhejiang, Jiangxi, Yunnan, Sichuan, Guizhou, Guangxi, Guangdong) *L. sinense* Wheeler
Body less reddish; pubescence sparser, not completely concealed the surface of the gaster (Distribution: Jiangsu)
..... *L. sinense* var. *sericatum* Wheeler

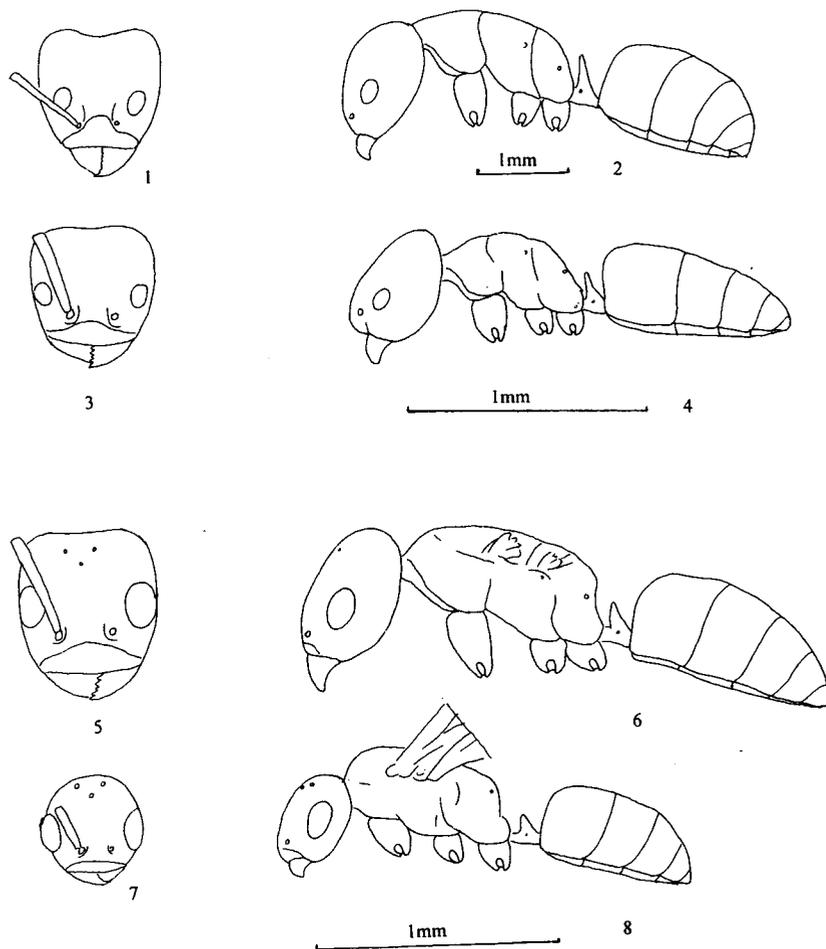
***Liometopum minimum* sp. nov.** (Figs. 3-8)

Holotype worker (Unit: mm). HL 0.55, HW 0.53, SL 0.38, PW 0.36, AL 0.60, CI 94, SI 70, ED 0.08, TL 2.0. Head large, a little longer than broad, broader posteriorly than in front, the anterior corners not swollen and prominent. Mandibles moderately convex, with 5 teeth, the third the smallest. Clypeus convex in the middle, ecarinate, its anterior border sinuate, shallowly concave in the middle. Eyes flattened. Frontal area and frontal groove obsolete.

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Frontal carinae indistinct. Antennal scapes scarcely reached to the occipital corners of the head; funicular joints each broader than long except the first and the terminal ones. Thorax narrower than head, with distinct promesonotal and mesopropodeal sutures. In profile view, thorax with the dorsal outline arched, basal surface of propodeum short, feebly convex; declivity slope down backward, about $3\times$ as long as the basal surface. Petiolar node scale-like, inclined forward, compressed anteroposteriorly, upper border acute. Gaster large and flattened dorsoventrally. Legs moderately long and stout. Body shining, very finely and densely punctate-shagreened; mandibles sparsely and evenly punctate. Erect hairs very sparse, only present on the dorsum of head and gaster. Pubescence very short and delicate, closely depressed on head, thorax, petiole, antennae and legs, and not conceal the sculpture. Pubescence on gaster much longer and thicker, directed uniformly backward on all segments. Head and gaster yellowish brown, thorax and petiole yellow.

Female. HL 0.62, HW 0.58, SL 0.50, PW 0.50, AL 0.87, CI 93, SI 86, ED 0.18, TL



Figs. 1-8 *Liometopum sinense* Wheeler and *L. minimum* sp. nov.

1-2. *L. sinense* Wheeler (worker) 3-8. *L. minimum* sp. nov. 3-4. worker 5-6. female
7-8. male 1, 3, 5, 7. head in full face view 2, 4, 6, 8. body in profile view

2.7. Eyes larger than in worker. Clypeus flattened in the middle, anterior border straight. Mandibles with 2 large teeth and 5 to 6 denticles. In profile view, thorax with its dorsal outline straight, basal surface of propodeum as long as declivity which steeply sloping backward. Petiolar node thicker at the base. Body in color darkish brown, antennae and legs paler. Other characters as in worker.

Male. HL 0.42, HW 0.38, SL 0.15, PW 0.40, AL 0.68, CI 90, SI 39, ED 0.18, TL 1.8. Head small and rounded, with very large eyes and ocelli. Antennal scapes short, reaching only to 1/2 of the distance from their insertions to the occipital corners of the head. Mandibles with only one apical acute tooth. Thorax, petiole, and gaster as in female. Body color as in female.

Holotype worker, Shiwandashan Nature Reserve, Guangxi, China, 26 Sep. 2000, ZHOU Shan-Yi leg. Paratypes: 22 workers, 4 females and 4 males, in the same nest of the holotype.

Paratype workers: HL 0.55-0.57, HW 0.53-0.54, SL 0.38-0.40, PW 0.36-0.37, AL 0.60, CI 94-96, SI 70-75, ED 0.08, TL 2.0-2.3. (5 individuals measured)

This new species can be easily distinguished from the other two Oriental species by the following characters: body smaller, mandible with 5 teeth, basal surface of propodeum much shorter, 1/3 times as long as the declivity; pubescence on gaster pointed backward.

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广西光胸臭蚁属一新种 (膜翅目:蚁科)

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摘 要

记述采自广西十万大山自然保护区的光胸臭蚁属 1 新种,即小光胸臭蚁 *Liometopum minimum* sp. nov.。新种个体小,上颚具 5 齿,并胸腹节基面短,为斜面长的 1/3,后腹部绒毛指向后方而易于与东洋界已描述的 2 种相区别。文中还提供中国已知 2 种及 1 变种的工蚁分种检索表。新种模式标本保存于广西师范大学生物系昆虫标本室。

关键词 膜翅目,蚁科,光胸臭蚁属,新种.

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