A new record of the *Liomyrmex gestroi* Emery, 1887 (Hymenoptera: Formicidae) from Thailand and a new evidence of the relations of this species with termites

Новая находка *Liomyrmex gestroi* Emery, 1887 (Hymenoptera: Formicidae) в Таиланде и новые доказательства связи этого вида с терmitами

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**Abstract.** A rare species of ants with poorly studied biology *Liomyrmex gestroi* Emery, 1887 is found in Southern Thailand in galleries of termites. Relations between this species of ants and termites are discussed.

**Резюме.** Редкий вид муравьев с недостаточно изученной биологией *Liomyrmex gestroi* Emery, 1887 обнаружен на юге Таиланда в ходах термитов. Обсуждается связь этого вида муравьев с терmitами.

**Introduction**

As a result of the latest revision of the genus *Liomyrmex* Mayr, 1865 [Rigato, Bolton, 2001], eight species of this genus have been reduced to synonyms of *Liomyrmex gestroi* Emery, 1887, so this genus is currently monotypic and belongs to the also monotypic tribe Liomyrmecini Bolton, 2003 of the subfamily Myrmecinae [Bolton, 2003]. *Liomyrmex gestroi* was originally described from the territory of Papua New Guinea, and is now known of the few collections of the Oriental region and Australasia. The workers of this species morphologically are poorly variable throughout the areal, this is true in relation to my specimens (Fig. 1–3). Biological characteristics of this species are not well understood.

**Material and methods**

I found this species in peninsular part of Thailand in the province of Songkhla, near Hat Yai, on the area of primary forest Kho Hong Hills (Colour plate 8: Fig. 4) on October 21, 2011, where I could watch over its biology. Unfortunately, I could possible to observe only a not large group of individuals (about 20 workers), 6 of which were collected and are in the collections of the Zoological Institute RAS in St. Petersburg (ZISP).

**Discussion**

Data about possible relationships of *Liomyrmex gestroi* with termites are known from several references from W.M. Wheeler, E.O. Wilson and B. Bolton. Their evidence suggests about finding of workers of this species of ants in the galleries of termites. W.M. Wheeler supposed that the relationship of *Liomyrmex gestroi* with termites “might be more intimate than a merely termite-ant predator one”. However, there is an indication of B.B. Lowery to the discovery of this species in rotten log without termites (all cited from Rigato, Bolton, 2001). Thus, the nature of the relationship of these ants with termites remained unclear.

A group of workers of *Liomyrmex gestroi* was discovered in one of the peripheral gallery of termites when I broke it. At this time, the workers of *Liomyrmex* caught termites and stung them. Part of the workers after stinging threw a termite and attacked others (8 such cases were registered). Mostly, one termite has been attacked by 2 or 3 ant workers. Most of captured and immobilized termites were immediately carried by ants into the cavities in soil and leaf litter (all other individuals, except for 6 collected specimens). Workers of *Liomyrmex gestroi* always chose the smallest individual of termites as a victim, not greatly exceeding their size. Near this gallery of termites, as well as in other parts of the this termites nest workers of *Liomyrmex gestroi* were no longer detected. Sadly, a nest of ants not been found, either.

**Results**

Based on my small observations and what is known about the biology of *Liomyrmex gestroi* at this point, I think most likely that this species is a special predator of termites. The nests of this species are located in the upper soil layers, and small groups of workers enter the galleries of termites, where prey on them. But, when this report was ready to publishment I have been talk with Dr. Anisyutkin who study termites in ZISP. He gave me information about collecting of few specimens of ants from Vietnam which were found inside ball-shaped nest of termites belonging to the subfamily Nasutitermitinae, and it turned out that
Color plate 8. A new record of *Liomyrmex gestroi* Emery, 1887 (Hymenoptera: Formicidae) from Thailand

Fig. 1–4. *Liomyrmex gestroi* Emery, 1887 and its habitat.
1 – body, lateral view; 2 – face, dorsal view; 3 – body, dorsal view; 4 – yellow arrow indicate location of ants in destroyed termite nest.

1 – вид сбоку; 2 – голова, вид сверху; 3 – вид сверху; 4 – желтая стрелка указывает место нахождения муравьев в разрушенном гнезде термитов.
it was *Liomyrmex gestroi*. This fact give evidence of close relations between this species and termites.

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**References**


References
