

## A New Synonymy in the Subgenus *Dendrolasius* of the Genus *Lasius* (Hymenoptera, Formicidae, Formicinae)

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**Abstract** *Lasius* (*Dendrolasius*) *morisitai* Yamauchi, 1978, was synonymized with *L. (D.) capitatus* (Kusnetzov-Ugamsky, 1928). An annotated list of the Japanese species of *Dendrolasius* is given, which corresponds to the names in the Ant Color Image Database.

**Key words:** *Lasius morisitai*, *Lasius capitatus*, Japanese Ant Color Image Database.

The genus *Lasius* Fabricius, 1804, is among the most difficult groups to classify in the taxonomy of ants because of the paucity of morphological information that is needed to distinguish species. Many taxonomic problems relating to precise identification remain unresolved, especially in the East Palearctic species, and comprehensive systematic study based on examination of type specimens is required.

Radchenko (2005) revised the East Palearctic species of the subgenus *Dendrolasius* Ruzsky, 1912, genus *Lasius*, and recognized six species in the subgenus: *L. nipponensis* Forel, 1912; *L. capitatus* (Kusnetzov-Ugamsky, 1928); *L. orientalis* Karawajew, 1912; *L. spathepus* Wheeler, 1910; *L. morisitai* Yamauchi, 1978; and *L. fuji* Radchenko, 2005. Radchenko's (2005) study offers a concise review, but the designations of *L. capitatus* and *L. morisitai* are obscure; *i.e.*, they are poorly differentiated based on the redescrptions. Radchenko (2005) examined the types of almost all species noted in the review, but was unable to examine that of *L. morisitai*. Moreover, the type series of *L. capitatus* was based on only a few workers. Many species of *Lasius* are very difficult, or impossible, to identify based only on worker material, although they are easily identified by their alates. Therefore, a revision of both species was required.

Recently, I visited southern Primorskyi, in the

far east of Russia, near the type locality of *L. capitatus*, and collected several workers of a *Dendrolasius* species that were well suited to the redescription of the *L. capitatus* types by Radchenko (2005). I was also able to examine the type material of *L. morisitai*. After considering the morphological characteristics of this material, I came to the conclusion that *L. capitatus* and *L. morisitai* were synonymous. *Lasius morisitai* is herein synonymized with *L. capitatus*.

Additionally, an annotated list of the Japanese species of *Dendrolasius* corresponding to the names in the Ant Color Image Database has been given, because the species names based on both the arrangements of Radchenko (2005) and this study were changed considerably.

### *Lasius* (*Dendrolasius*) *capitatus* (Kusnetzov-Ugamsky, 1928)

*Lasius* (*Dendrolasius*) *morisitai* Yamauchi, 1978: 176. Syn. nov.

*Type material examined.* Paratype (holotype nest series), worker; “Kamigamo, Kyoto/VI 21, 1972/K. Onoyama leg./j 122//Paratype/(Holotype/nest series).” (in the collection of Mr. Kyoichi Kinomura).

*Other material examined.* Japan: w (workers), q (queens), m (males), Isshiki, Shōkawa-chō, Takayama-shi, Gifu-ken, 13 VI 2004, K. Ki-

nomura; w, q, m, Fujiidani, Matsumoto-shi, Nagano-ken, 21 VII 2004, T. Komatsu; Russia: w, Kamenushka, Ussuryisk, Primorskyi krai, 28 V 2005, M. Maruyama. Materials from several other localities in Japan were also examined.

*Comments.* Radchenko (2005) differentiated *L. morisitai* from *L. capitatus* based on the setal state of the scape (subdecumbent in *L. capitatus* and decumbent in *L. morisitai*), the shape of the emargination in the occipital margin, and the aspect ratio of the head. However, the setal state of the scape in the *L. morisitai* paratype was in complete agreement with the *L. capitatus* type described by Radchenko (2005). The setal state of the scape depends on the condition of the specimens. For example, in a specimen covered with body fluid, the setae on the scape appear to be decumbent. The specimens identified as *L. morisitai* by Radchenko (2005) were probably in this state. Other diagnostic characters of both species were often observed in the same nest series; *i.e.*, they were no more than intraspecific variations.

#### An annotated list of the Japanese species of *Dendrolasius*

Based on the taxonomic arrangements by Radchenko (2005) and the present study, all scientific names of the Japanese *Dendrolasius* ants were changed, except for *L. spathepus*. Here, a corresponding list of the latest scientific names (head, bold), the Japanese names, and the former scientific names used in the Ant Color Image Database (Japanese Ant Database Group [JADG], 1995, 2003) are given. JADG (1995) largely follows Morisita *et al.* (1988).

##### ***Lasius (Dendrolasius) nipponensis*** Forel, 1912

[Japanese name: Fushiboso-kusa-ari]

*Lasius fuliginosus* var. *nipponensis* Forel, 1912: 339 (type locality: Tôkyô, Honshû, Japan).

JADG, 1995: *Lasius (Dendrolasius) crispus* Wilson, 1955 (type locality: Kôchi, Shikoku, Japan).

JADG, 2003: "*Lasius (Dendrolasius) capitatus* Kusnetzov-Ugamsky, 1928."

*Comments.* In his comprehensive monograph of the genus *Lasius*, Wilson (1955) examined the type of *L. fuliginosus* var. *nipponensis*, but erroneously synonymized it with *L. fuliginosus* (Latreille, 1798). In the same paper, Wilson (1955) designated *L. crispus* as a new species. Kupyanskaya (1989) misidentified this species as *Lasius capitatus*, and synonymized *L. crispus* with *L. capitatus*; the JADG (2003) followed this assignment. Radchenko (2005) reexamined the type of *L. f. var. nipponensis* and clarified the identity of this species.

##### ***Lasius (Dendrolasius) capitatus***

(Kusnetzov-Ugamsky, 1928)

[Japanese name: Morishita-ke-ari]

*Acanthomyops fuliginosus* var. *capitatus* Kusnetzov-Ugamsky, 1928: 18 (type locality: Vladivostok, Russia)

JADG, 1995, 2003: *Lasius (Dendrolasius) morisitai* Yamauchi, 1978 (type locality: Kyôto, Honshû, Japan).

*Comments.* Although Kupyanskaya (1989) examined the type of *L. capitatus*, the name was assigned to *L. nipponensis*. Radchenko (2005) reexamined the type of *L. capitatus* and clarified the identity of this species. *Lasius morisitai* is synonymized with *L. capitatus* in the present study.

##### ***Lasius (Dendrolasius) orientalis***

Karawajew, 1912

[Japanese name: Teranishi-ke-ari]

*Lasius fuliginosus* var. *orientalis* Karawajew, 1912: 586 (type locality: Korea).

JADG, 1995, 2003: *Lasius (Dendrolasius) teranishii* Wheeler, 1928 (type locality: Hokkaidô, Japan).

*Comments.* Wilson (1955) did not examine the type of *L. fuliginosus* var. *orientalis*, but tentatively synonymized it with *L. fuliginosus*. Radchenko (2005) examined the type of *L. f. var. orientalis*, revived it from synonymy, and then raised it to species status and synonymized *L. teranishii*, a junior synonym of *L. orientalis*, with it.

***Lasius (Dendrolasius) spathepus***

Wheeler, 1910

[Japanese name: Kusa-ari-modoki]

*Lasius (Dendrolasius) spathepus* Wheeler, 1910: 130  
(type locality: Japan).

JADG, 1995, 2003: *Lasius (Dendrolasius) spathepus*  
Wheeler, 1910.

*Comments.* This is only the species for which the scientific name has been stable.

***Lasius (Dendrolasius) fuji* Radchenko, 2005**

[Japanese name: Kuro-kusa-ari]

*Lasius (Dendrolasius) fuji* Radchenko, 2005: 91 (type locality: Chagang, North Korea).

JADG, 1995: *Lasius (Dendrolasius) fuliginosus* (Latreille, 1798) (type locality: France).

JADG, 2003: “*Lasius (Dendrolasius) nipponensis* Forel, 1912.”

*Comments.* Wilson (1955) regarded this species as the East Palearctic population of *L. fuliginosus*, and synonymized *L. nipponensis* with *L. fuliginosus*. Espadaler *et al.* (2001) regarded “the East Palearctic population of *Lasius fuliginosus*” as a distinct species based on its morphological differences to *L. fuliginosus* and the contents of the mandibular gland, and erroneously assigned “*L. nipponensis*” to this species, in accord with Wilson’s (1955) arrangement. Radchenko (2005) assigned the name *L. fuji* to this species.

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