

MATERIAL AND METHODS

This work is based on the investigation of some collected personally material and of type and non-type specimens, preserved in different museums and institutions: Museum of the Comparative Zoology of Harvard University, Cambridge, Massachusetts, USA (MCZ); Muséum d'Histoire naturelle, Geneva, Switzerland (MHNG); Institute of Zoology of the Ukrainian National Academy of Sciences, Kiev, Ukraine (IZK); Museum and Institute of Zoology of the Polish Academy of Sciences, Warsaw, Poland (MIZ); Jagiellonian University, Cracow, Poland (JUK); Zoological Museum of the Moscow State University, Russia (ZMMU); Zoological Institute of the Russian Academy of Sciences, St.-Petersburg, Russia (ZIN); Biological and Soil Institute of the Russian Academy of Sciences, Vladivostok, Russia (BPI).

The following measurements (in mm) and indices are used:

HL₁ – head length in full-face view, measured from the mid-point of the occipital margin to the mid-point of the anterior clypeal margin; HL₂ – head length in full-face view, measured as a diagonal line from the uppermost point of an occipital corner to the mid-point of the anterior clypeal margin; HW₁ – maximum head width in full-face view, excluding eyes; HW₂ – minimum head width near the level of the mandibular insertion; SL – maximum straight-line length of the antennal scape in profile; OL – maximum diameter of the eye; AL – diagonal length of the alitrunk seen in profile, from the neck shield to the posterior margin of propodeal lobes (workers), or from the anterio-dorsal point of alitrunk to posterior margin of propodeal lobes (queens).

Indices:

CI = HW₁ / HL₁; CLI = HL₂ / HL₁; CWI = HW₁ / HW₂; SI₁ = SL/HL₁; SI₂ = SL/HW₁; OI = OL / HW₁.

TAXONOMY

Lasius (Dendrolasius) nipponensis Forel, 1912, stat. rev. (Figs 1–7, 15–21)

Lasius fuliginosus var. *nipponensis* Forel 1912: 339, w, nec q, Japan.

Lasius nipponensis: Santschi 1941: 278 (raised to species).

L. fuliginosus var. *nipponensis*: as junior synonym of *L. fuliginosus* (Latreille): Wilson 1955: 138; Yamauchi 1978: 171; Bolton 1995: 224; revived from synonymy and raised to species as the first available replacement name for "oriental *fuliginosus*": Espadaler et al. 2001: 340; Imai et al. 2003: 60.

Lasius crispus Wilson, 1955: 144, w, q, m, Japan (unresolved primary homonym of *Lasius crispus* Théobald, 1935: 68, France, Miocene); Yamauchi and Hayashida 1968: 401, 402; Yamauchi 1978: 174, syn. nov.

Material examined. Paralectotypes, 3 workers on the same pin, "*L. fuliginosus* Latr., worker, Tokyo (Yano)",

"*v. nipponensis* Forel, worker, Type, Tokyo" (both hand written by Forel), "Coll. Forel", "Typus" (red printed label) (MHNG); "paralectotype" queen, "*L. fuliginosus* Latreille, ♀, Japan (Yano)", "*v. nipponensis* Forel, ♀, Type, Tokyo" (both hand written by Forel), "Coll. Forel", "Typus" (red printed label) (MHNG) (really this queen is *L. fuji*, see below). Non-type material: more than 20 workers, 2 queens from the Russian Far East, North Korea and Japan (IZK, MIZ, ZMMU, BPI, JUK).

Measurements and indices of the paralectotype workers: HL₁ = 1.09–1.25, HL₂ = 1.15–1.30, HW₁ = 1.09–1.26, HW₂ = 0.67–0.76, SL = 1.01–1.18, OL = 0.23–0.25, AL = 1.26–1.51; CI = 1.00–1.01, CLI = 1.04–1.05, CWI = 1.63–1.67, SI₁ = 0.92–0.94, SI₂ = 0.92–0.94, OI = 0.20–0.21.

Diagnosis of workers and queens. Workers: petiolar scale (seen in profile) thin, distinctly narrowing to the top and with flattened dorsal crest, symmetrical; seen in front or from behind, it is the widest at the level of the spiracles, clearly tapering to the top, its dorsal crest narrowly rounded, without notch; head in full face view distinctly narrowing anteriorly and with shallowly emarginate occipital margin; scape, mid and hind tibiae not flattened, elliptical in cross-section; ratio of min/max diameters of the scape > 0.7; scape and legs with numerous subdecumbent hairs; promesonotal dorsum and occipital margin with rather long standing hairs; body with sparse, short decumbent pubescence.

Queens: petiolar scale (seen in profile) thin, narrowing to the top; head in full face view distinctly narrowing anteriorly, with almost straight lateral margins in front of the eyes, and with hardly emarginate occipital margin; scape, mid and hind tibiae not flattened, elliptical in cross-section; ratio of min/max diameters of the scape > 0.7; legs and scape with dense decumbent pubescence and numerous subdecumbent hairs; head, alitrunk and gaster with very abundant, long, often curved standing hairs.

Notes. Forel (1912) described *L. fuliginosus* var. *nipponensis* from workers and queen from Japan (vicinity of Tokyo). The most important features, separating the workers of this form from those of *L. fuliginosus*, have been emphasised in the original description: "... l'écaille de l'ouvrière est assez tranchante et non obtuse, la tête est plus rétrécie devant..." [e.g.: ... the petiolar scale of the worker is rather sharp (thin) and not blunt, the head is narrower anteriorly...] (loc. cit., p. 339). These features fully correspond to those of the type specimens (see above).

The taxonomic position of *L. nipponensis* is somewhat confused because the queen, described by Forel (1912), indeed belongs to the "*oriental fuliginosus*". It has a thick, slightly narrowing to the top petiolar scale (seen in profile); mid and hind tibiae and tarsi with dense decumbent pubescence only, without subdecumbent hairs; the head in full face view only slightly narrowing anteriorly, with distinctly emarginate occipital margin, and with abundant, though relatively short,