

Taxonomic Notes on the Ant Genus *Crematogaster* in Japan (Hymenoptera: Formicidae)

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Abstract. Taxonomic notes on four species of the ant genus *Crematogaster* in Japan are given. The species treated are *C. matsumurai* Forel (= *C. matsumurai* var. *iwatensis* Santschi syn. nov.), *C. nawai* Ito stat. nov. (= *C. laboriosa* Smith, 1874 syn. nov.), *C. teranishii* Santschi stat. nov., and *C. vagula* Wheeler stat. nov. Key to species, a table of diagnoses, and SEM pictures are presented.

Key words: *Crematogaster*, ant, taxonomy, synonyms, Japan.

Introduction

The genus *Crematogaster* has been one of the ant genera unchallenged in Japan from the current viewpoint of classification. Onoyama & Morisita (1992) gave a key to and descriptions of 5 species or subspecies of the subgenus *Crematogaster* and 2 species of the subgenus *Orthocrema* occurring in Japan, but did not mention 2 available varieties described from Japan. The status of two subspecies and 2 varieties of the subgenus *Crematogaster* has not been assessed. As Onoyama (1980) stated, the examination of type material of the taxa so far described is necessary to solve the problems. I have examined some of these, and obtained some taxonomic results on four species of the subgenus *Crematogaster*, including new synonyms. As stated by Onoyama (1976), Santschi's (1930) characterization of Japanese *Crematogaster* forms is still useful. Although the number of the taxa treated in Onoyama & Morisita (1992) is the same as here, the nomenclature and taxonomic status are changed.

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Measurements and Indices

Head length (HL): maximum dorsal full-face view length from the anteriormost margin of clypeus to the posterior margin of occiput.

Head width (HW): maximum dorsal view distance across head excluding eyes.

Cephalic index (CI): $HW/HL \times 100$.

Scape length (SL): length of scape excluding radicle.

Scape index (SI): $SL/HW \times 100$.

Eye length (EL): maximum length of eye.

Width of frontal lobes (FW): maximum width between the right and left outermost margins of frontal lobes in dorsal view.

Pronotal width (PW): Maximum width of pronotum in dorsal view.

Weber's length of mesosoma (WL): maximum diagonal distance from the base of anterior slope of pronotum (namely excluding cervix) to the propodeal lobe (=metapleural lobe).

Propodeal spine length (PSL): lateral view length from the base of propodeal spine to its apex.

Distance between propodeal spines (PSD): maximum distance between the apices of propodeal spines.

Petiole width (PtW): maximum width of petiole in dorsal view.

Postpetiole width (PPW): maximum width of postpetiole in dorsal view.

All measurements were carried out with a direct reading micrometer apparatus (Sokubi-keisoku-souchi