Kontyû, Tokyo, **50** (2): 189–197. June 25, 1982

Taxonomic Study of the Ant Genus *Pheidole* WESTWOOD of Japan, with a Description of a New Species (Hymenoptera, Formicidae)*

Kazuo OGATA

Entomological Laboratory, Faculty of Agriculture,
Kyushu University, Fukuoka, 812 Japan

Synopsis Seven species of the genus *Pheidole* of Japan are treated. *P. ryukyuensis* is described as new based on the worker, soldier and female. The male genitalia of six species, *nodus*, *fervida*, *pieli*, *indica*, *megacephala* and *fervens* are described and illustrated for the first time. Keys to Japanese species based on the worker, soldier and female are given.

Introduction

The genus *Pheidole* was erected by WESTWOOD in 1840 based on the type-species *Atta providens* SYKES, 1835 from India. This genus is one of the largest genera of ants, including more than 400 species. It occurs from the tropics to the temperate zone of the world.

In 1874, Fr. SMITH described *P. fervida* and *P. nodus* from Hyogo (Hiogo), Honshu. This is the first record of the genus from Japan. WHEELER (1928) recorded *P. pieli* SANTSCHI, 1925 from Nagasaki, Kyushu, and OKAMOTO (1957) *P. indica* MAYR, 1878 from the southern coast of Shikoku. In Japan proper, these 4 species have been recognized. Another species *P. megacephala* (FABRICIUS, 1793) was reported from the Ryukyus (SONOBE, 1973). Thus, the genus *Pheidole* has been represented by 5 known species in Japan (ONOYAMA, 1980).

In the southern part of Japan including the Ryukyus, however, our knowledge of the species of *Pheidole* is in confusion. ABE *et al.* (1976) reported *P. fervens* Fr. SMITH, 1858 and *P. oceanica* MAYR, 1866 from Okinawa Island. Unfortunately, they did not note any morphological characters of these species. It is very probable that their identification of these species is doubtful. No further record of these two species has appeared since then. ONOYAMA (1976) recognized 7 species of *Pheidole* from the Ryukyus: *P. nodus*, *P. megacephala*, *P. pieli* and 4 undetermined species. In the present study, I have confirmed the occurrence of *P. fervens* Fr. SMITH and found a new species, *P. ryukyuensis*, from the Ryukyus.

The male genitalia of this genus have hitherto been poorly studied. I examined the detailed structure of aedeagus of Japanese species, except for *P. ryukyuensis* of which the male is unknown, and found that the ventrodistal margin of aedeagus

* Contribution from the Entomological Laboratory, Faculty of Agriculture, Kyushu University, Fukuoka (Ser. 3, No. 91).