

THE ANT TRIBE ODONTOMACHINI (HYMENOPTERA : FORMICIDAE)
FROM TAIWAN, WITH A DESCRIPTION OF A NEW SPECIES

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台湾産アギトアリ族および1新種の記載

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Synopsis Three Taiwanese species of the tribe Odontomachini are recognized; they are *Anochetus taiwaniensis* n. sp., *A. subcoecus* and *Odontomachus monticola*. The new species is separated from the other congeners by small denticles of the dorsal inner margin of the mandible, smooth and shining pronotal disc, narrowly rounded petiolar apex, and longer mandibles, antennal scapes and convexed large eyes. A key to these species is also provided.

Introduction

The ant tribe Odontomachini, belonging to the subfamily Ponerinae, is represented by about 130 species in two genera distributed in the tropical and subtropical regions of the world (BROWN, 1976, 1977, 1978; LATTKKE, 1986).

FOREL (1912, 1913) described three forms from Taiwan in the tribe Odontomachini, i. e., *Odontomachus monticola* var. *formosae*, *O. monticola* var. *major*, and *Anochetus subcoecus*. However, YASUMATSU (1962) and BROWN (1976) showed that both of *O. monticola* var. *formosae* and *O. monticola* var. *major* are synonyms of *O. monticola*. Thus, up to present two species, *Odontomachus monticola* and *Anochetus subcoecus*, have been reliably recorded from Taiwan.

Recently, I have examined several specimens of the tribe Odontomachini from Taiwan. As a result, I recognized three species of the tribe Odontomachini and confirmed that one of them was new to science. In this paper, I briefly review the Taiwanese species of the tribe Odontomachini with a description of a new species.

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Key to the Taiwanese species of Odontomachini (Worker)

1. Larger species, head length more than 2.3 mm, body length more than 10 mm; petiolar apex tapered gradually into a slender, spiniform tip *Odontomachus monticola* EMERY
—Smaller species, head length less than 2.0 mm, body length less than 8 mm; petiolar apex narrowly rounded or conical, not spiniform 2
2. Antennal scapes long, exceeding posterior lobes of head; eyes large, ca. 0.25 mm in diameter; body length ca. 7 mm *Anochetus taiwaniensis* n. sp.
—Antennal scapes short, not reaching posterior lobes of head; eyes small, consist of only 7-10 facets; body length ca. 4 mm *Anochetus subcoecus* FOREL

Genus *Anochetus* MAYR, 1861

Anochetus taiwaniensis n. sp.

(Figs. 1-6)

Holotype worker. Head length 1.60 mm; head width 1.40 mm; mandibular length 1.15 mm; scape length 1.55 mm; cephalic index 87; mandibular index 72; scape index 97; WEBER's length of alitrunk 2.35 mm; dorsal pronotal width 0.80 mm; petiolar node length 0.45 mm; petiole height 0.73 mm; body length 7.3 mm.

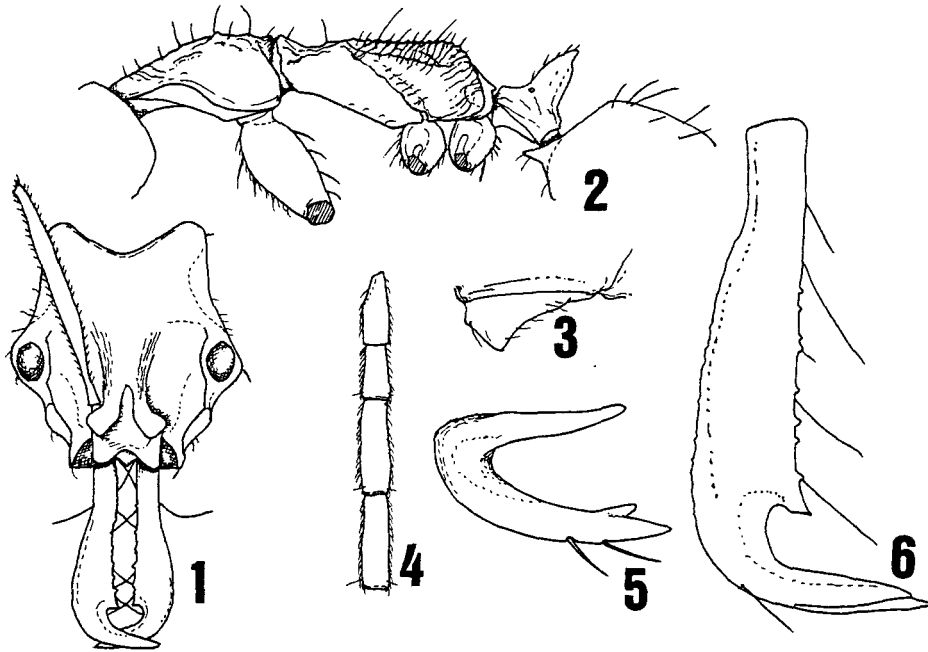
General form of head as shown in Fig. 1. Eyes large and convex, 0.25 mm in diameter. Mandibles long, broadest toward apices; dorsal inner margin almost straight with 8 small denticles; ventral apical tooth longer than dorsal tooth, and adjoined dorsally by small intercalary tooth $\frac{2}{3}$ the length of ventral tooth. Antennae long and slender; scape surpasses posterior margins of occipital lobes of head an amount more than the length of the second segment of antenna; second segment $2.6\times$ as long as diameter; third segment $2.0\times$ as long as diameter; fourth and fifth segments each $3.0\times$ as long as diameter.

General form of alitrunk and petiole shown in Fig. 2. Seen from lateral side, dorsum of propodeum straight; postero-dorsal corner rounded, not forming an angle. Mesonotal disc about $1.1\times$ as wide as long, concave in side view, with moderately distinct anterior rim. Petiolar node long and slender, with narrowly rounded apex; seen from lateral side, both anterior and posterior slopes gently convex; in front view, lower halves of node nearly parallel and rapidly tapered to narrowly rounded apex. Subpetiolar process triangular shown in Fig. 2.

Head and mandibles smooth and shining, antennae shagreened and opaque. Pronotum smooth and shining but lateral margins of disc weakly striate; lateral faces of mesonotum and lower halves of lateral faces of propodeum smooth and shining; dorsum of propodeum with about 17 transversely striate. Petiolar node smooth but somewhat rugulose. Gaster smooth and shining. Legs subopaque. Erect or suberect hairs moderately abundant; longest pronotal hair about 0.20 mm in length.

Color reddish brown, legs and antennal funicles yellow.

Paratypes. Five paratype workers from the same series as holotype with following dimensions and indices: Head length 1.55-1.65 mm; head width 1.35-1.45 mm; mandibular length 1.10-1.20 mm; scape length 1.45-1.65 mm; cephalic index 86-88; mandibular index 70-



Figs. 1-6 *Anochetus taiwaniensis* n. sp. worker; 1, Head, frontal view; 2, alitrunk and petiole, lateral view; 3, subpetiolar process; 4, antennal 2-5th segments; 5, apex of mandible, adaxial view; 6, right mandible, dorsal view.

73; scape index 93-100; WEBER's length of alitrunk 2.30-2.35 mm; dorsal pronotal width 0.75-0.85 mm; petiole height 0.68-0.73 mm; petiole length 0.43-0.45 mm; eye diameter 0.25-0.28 mm; body length 6.7-7.2 mm.

Holotype. Worker, Liukuei, Kaohsiung Hsien, 17-VIII-1987, S. KUBOTA leg.

Paratypes. 45 workers, same data as the holotype; 10 workers, same locality and date, H. SAKAI leg.; 10 workers, same locality and date, M. TERAYAMA leg.; 1 worker, Wulai, Taipei Hsien, 2-VIII-1981, S. KUBOTA leg.

Type depository. The holotype and some paratypes are deposited in the collection of the National Institute of Agro-Environmental Sciences, Tsukuba, Japan, and the other paratypes are in the Taiwan Agricultural Research Institute.

Remarks. This new species belongs to the *risii*-group of BROWN (1978) and resembles especially *risii* FOREL from Southeast Asia, *modicus* BROWN from Indonesia and the Philippines, and *brevis* BROWN from the Philippines. But the species is distinguished from those of the three species as follows: *Taiwaniensis* differs from *risii* in having broader mandibular shafts and small denticles of the dorsal inner margine of the mandible. *Taiwaniensis* differs from *modicus* and *brevis* in having longer mandibles (mandibular length more than 1.00 mm in *taiwaniensis*; mandibular length less than 0.90 mm in *modicus* and *brevis*), larger eyes (eye diameter ca. 0.25 mm in *taiwaniensis*; eye diameter less than 0.22 mm in *modicus* and *brevis*), and longer antennal scapes which surpass posterior margins of occipital lobes of head an amount more than the length of the antennal second segment.

Anochetus subcoecus FOREL

(Figs. 7-8)

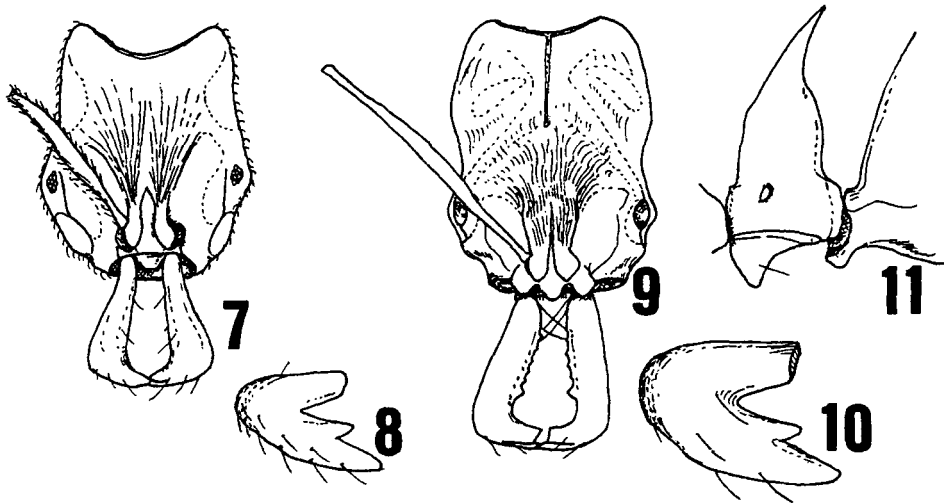
Anochetus subcoecus FOREL, 1912, Ent. Mitt., 1: 46.

Material examined. 2 workers, Liukuei, Kaohsiung Hsien, 17-VIII-1987, S. KUBOTA leg.; 3 workers, same locality and date, H. SAKAI leg.; 4 workers, same locality and date, M. TERAYAMA leg.

This species has been known only from a single worker specimen. In the present study, I have examined nine more workers. For worker's alitrunk, petiole and base of gaster, see BROWN (1978).

Other locality previously recorded. Chiasien (=Kosempo), Kaohsiung Hsien.

Distribution. Taiwan.



Figs. 7-11. — 7, 8. *Anochetus subcoecus*, worker; 7, Head, frontal view; 8, apex of mandible, adaxial view. — 9-11, *Odontomachus monticola*, worker; 9, Head, frontal view; 10, apex of mandible, adaxial view; 11, petiole, lateral view.

Genus *Odontomachus* LATREILLE, 1804

Odontomachus monticola EMERY

(Figs. 9-11)

Odontomachus monticola EMERY, 1892, Ann. Soc. ent. Fr., 60: 560.

Material examined. A total of 34 individuals were examined from many localities. This species is commonly found in forest.

Distribution. Taiwan, Japan, China, Burma, southeastern Asia, northeastern India.

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摘 要

台湾産のアギトアリ族として、*Anochetus taiwaniensis* n. sp., *A. subcoecus* FOREL, *Odontomachus monticola* EMERY の3種を報告した。新種として記載した *A. taiwaniensis* は、BROWN(1978) による *risii*-group に属し、特に *risii* FOREL, *modicus* BROWN, *brevis* BROWN に類似するが、大あごの形状、触角柄節の長さ、複眼の大きさなどによってこれらの種とは容易に区別される。

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