Descriptions of a new and an unrecorded species of the Heleomyzidae (Diptera) from Japan

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Abstract: A new species, *Eccoptomera chibaensis* sp. nov. and an unrecorded species, *Neoleria prominens* (Becker) of the family Heleomyzidae, are described from Japan. The male genitalia of both species are illustrated.

INTRODUCTION

The genus *Eccoptomera* Loew is a member of the tribe Oecothieini, subfamily Heleomyzinae. It includes 28 species, of which 21 occur in the Palaearctic and 7 in the Nearctic Regions (Gorodkov, 1970; Gill, 1962). However, none of the species were distributed in common in both regions. In Japan only *Eccoptomera itoi* Okadome was described from Kyushu and Honshu by Okadome (1969). In the present paper, a new species is described under the name of *E. chibaensis* Okadome, sp. nov. from Chiba Prefecture, Honshu, Japan; the genitalia of the male is illustrated and a key to the Japanese species is also presented.

The genus *Neoleria* Malloch, 1919, belonging to the tribe Heleomyzini, comprises 14 species, of which 10 occur in the Palaearctic, and 7 in the Nearctic Regions (Gorodkov, 1970; Gill, 1962). The author examined a total of 20 males and 5 females of *N. prominens* (Becker, 1897) collected from Hokkaido (Nukabira), Honshu (Saitama and Aichi Prefectures) and Kyushu (Nagasaki Prefecture) in Japan. This is a new record of the genus from Japan.

Genus *Eccoptomera* Loew

Eccoptomera Loew, 1862a: 47; 1862b: 127. Type species: *Helomyza longiseta* Meigen, 1830 (des. Coquillett, 1910).

Key to the Japanese species of *Eccoptomera* Loew

1. Body testaceous yellow; arista very long; antennae yellowish-orange and one katepisternal bristle *E. itoi*
- Body ash-gray; arista short; antennae black; two katepisternal bristles *E. chibaensis* sp. nov.

Eccoptomera chibaensis sp. nov.

[Japanese name: Chiba-togeasi-togehanebae]
(Fig. 1a)

Male. Head: Higher than length; eye nearly round; frons reddish-yellow becoming dull anteriorly; width at level of posterior orbital bristles about 1.3 times the length from anterior ocellus to frontal margin; sides distinctly narrowing anteriorly and frontal setulae dense; ocellar triangle darkened with grayish pruinose; ocellars strong subequal in inner verticals; antennae arising from above 1/3 of head;

Fig. 1. Male genitalia. —a, *E. chibaensis* sp. nov.; b, *N. prominens*.

1st and 2nd segments yellowish-brown, 3rd segment almost velvety-black, and rounded; arista long, more than 4 times as long as the 3rd antennal segment, shortly pubescent and thickened on basal part; face and cheeks pale yellowish-brown with whitish thin pollen; palpus entirely yellow with about 10 small bristles on ventrally; 1 very long vibrissa and row of about 8 buccal setae present.

Thorax: Mesonotum dull-grey pollinosity; 1+3 *dc* and fine mesonotal setae rising from small dark-brown spots; scutellum bare except for 2 pairs of lateral bristles; pleura paler than mesonotum and slightly tinged with brown mesopleuron; 1 propleural and 2 katapisternal bristles with supplementary hairs.

Legs: Yellowish-brown, except dark brownish femora and 3 apical segments of tarsi; fore femur with a row of 6–7 long bristles on posterodorsal and a row of about 10 long bristles on posteroventral surfaces; mid femora with a row of some short bristles on middle part of anterior- and about 10 small bristles on posteroventral surfaces; hind femora with about 3 bristles on anterodorsal and about 10 small bristles on posteroventral surfaces.

Wing: Glassy-clear; stigma slightly dar-

kened; veins mostly pale brown; distance between apices of R_{2+3} and R_{4+5} clearly broader than that between apices of R_{4+5} and M_{1+2} . Halter pale yellow.

Abdomen: Dull-grey pollinose; hind marginal bristles of epandrium relatively long; genital segments yellowish-brown, small and rounded in lateral view. The genitalia shown in Fig. 1a.

Length: Body 7.0 mm, wing 6.0 mm.

Female. Resembling male, but the hind femur without a row of small bristles on posteroventrally.

Length: Body 8.0 mm, wing 7.0 mm.

Holotype: ♂, Aobanomori-Park, Chiba-shi, Chiba-Pref., 16. XII. 1998, R. Kano leg.; Paratypes: 2♂2♀, Same data as holotype.

Distribution. Japan (Honshu).

Remarks. This species is similar to the Russian *E. promethei* Gorodkov, 1966, but is distinguished from it by the height of its genae (about half of that of *promethei*) and its anterior margin of editum with a few setae or hairs (bare in *promethei*).

Note. *Eccoptomera chibaensis* sp. nov. is rare, and its biology is unknown. According to Leister (1967), 42 specimens of a Russian species, *E. promethei* Gorodkov, were found in the burrows of the long-clawed mole-vole, *Prometyheomys schaposhnikovii* Sat. in Caucasia.

Genus *Neoleria* Malloch

Neoleria Malloch, 1919: 83 c. Type species: *Neoleria rotundicornis* Malloch, 1919.

Neoleria prominens (Becker, 1897)

[Japanese name: Togari-kenashi-togehanebae]
(Fig. 1b)

Tephrochlamys prominens Becker, 1897, Ann. Mus. Zool. Acad. Sci. St. Petersburg. 2: 402.

Neoleria prominens (Becker): Gill, 1962, Proc. U. S. Natl. Mus., 113: 551. —Gorodkov, 1984, Catalog. Palae. Reg., 10: 22.

Male. Head: Dark-gray higher than length; frons reddish-yellow becoming dull anteriorly; width at level of posterior orbital bristles about 1.8 times the length from anterior ocellus to frontal margin; frontal sides slightly narrowing anteriorly and setulae rather dense; ocellar triangle darkened, grayish pruinose; ocellar bristle strong; orbit yellowish-brown with whitish pruinose; antennae reddish-yellow, arising from about the middle of head; the 3rd segment oval and darkened; arista brownish-gray to black, pubescent; frontal lunule and face reddish-yellow with whitish thin pruinosity; 1 very long vibrissa and a row of about 6 buccal setae present.

Thorax: Mesonotum ash-gray to black; 1 + 3 *dc* and fine mesonotal setae rising from small dark-brown dots; humerus and edges of pleura grayish-brown to dark; scutellum bare on dorsum, except for usual lateral bristles.

Wings: Hyaline membrane, slightly clouded along the costal area; veins yellowish-brown; costal spines rather long, about twice the width of the costa. Halter entirely pale yellowish-brown.

Legs: Yellowish-brown except darkened fore femur and distal ends of tibia and tarsi; fore femur posterodorsally with a row of about 10 long bristles and posteroventrally with a row of about 5 short bristles; mid femur with some short bris-

gles on anterior surface and a row of about 10 short bristles antero- and posteroventral surfaces; hind femur with a row of about 10 short bristles on antero- and posteroventral surfaces.

Abdomen: Dark ash-gray, conspicuously becoming yellowish-orange distally; posterior marginal bristles of tergites 2–5 well developed; epandrium pale yellow and rounded in lateral view. Male genitalia shown in Fig. 1, b.

Length: Body 4.0 mm, wing 5.5 mm.

Female. Resembling male, but rows of short bristles on antero- and posteroventral surfaces of mid and hind femora are inconspicuous, and the setulae of the legs are uniformly weakly.

Length: Body 5.5 mm, wing 6.0 mm.

Specimens examined. [HOKKAIDO] 1♂, Fujikawa, 19. VII. 1967, T. Saigusa leg.; [HONSHU] 1♂, Mikajima, Tokorozawa, Saitama Pref., 2–16. III. 1990, H. Mitsui leg.; 2♂, Nissin, Aichi Pref., 21. III. 1971, K. Yamagishi leg.; [KYUSHU] 16♂ 5♀, Mt. Gokahara, Hegi (500 m), Nagasaki Pref., 20. III. 1992, H. Kurahashi leg.

Distribution. Japan (Hokkaido, Honshu and Kyushu); Nearctic.

Remarks. According to Gill (1962), this species is similar to *N. inscripta* (Meigen, 1830) known from the Holarctic region. *N. prominens* differs from *inscripta* by having the following features: antennae darkened, especially 3rd segment becoming blackish; arista brown to black; mesonotum ash-gray to black; *dc* becoming gradually weaker anteriorly; legs reddish-brown to dark brown; abdomen dark ash-gray.

Note. This species has been found from the nest of a glaucous gull [*Linscripta arus hyperboreus* Gunners; Charadriiformes, Laridae] (Collin, 1923), from the carcass of an Eskimo dog (Weber, 1954), and from a garbage dump (Gill, 1962). The species is known as a common synanthropic fly, and the larvae are reared in latrines (Gorodkov, 1970). In Japan, most of the adult flies examined were attracted to a decayed meat trap.

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