

A New Species of the Anomalous Ant-attended Mealybug
Genus *Eumyrmococcus* (Homoptera,
Pseudococcidae) from Japan

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Abstract A new species of the genus *Eumyrmococcus*, *E. nipponensis*, is described and illustrated from Mikura-jima Is., Yaku-shima Is. and Tokunoshima Is., Japan. This ant-attended mealybug was found in nests of *Acropyga nipponensis* TERAYAMA.

The genus *Eumyrmococcus* SILVESTRI, 1926 is known only by a single species, *E. smithii* SILVESTRI, 1926, occurring in Japan, continental China and Taiwan. This species lives in a subterranean habitat and is closely associated with a subterranean ant, *Acropyga sauteri* FOREL (SILVESTRI, 1926, 1927; UYE, 1928).

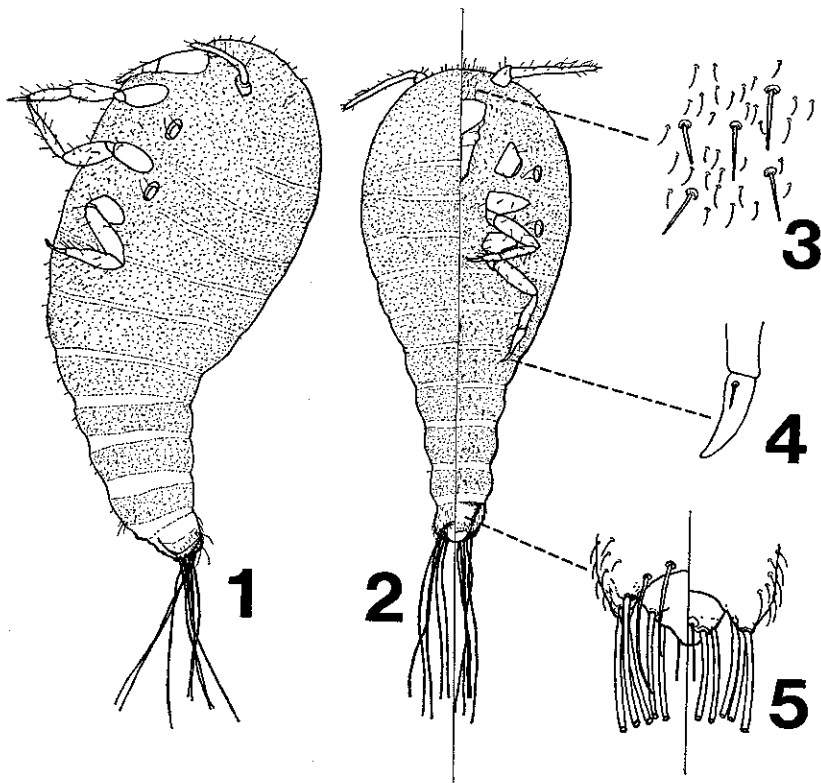
In the course of my study on *Acropyga* ants in Japan, I found a rhizocine mealybug in the nest of *A. nipponensis* TERAYAMA, 1985. Another material of the mealybug, associated with *A. nipponensis*, was collected by Messrs. K. MASUKO and S. KUBOTA and was submitted to me for study. After my close examination I came to the conclusion that the mealybug is a new species of the genus *Eumyrmococcus*.

Eumyrmococcus nipponensis sp. nov.

(Figs. 1-10)

Adult female. Body pyriform, 1.23-1.24 mm long except for apical setae. Cephalothorax swollen, 0.48 mm in length, 0.48 mm in maximum width and 0.52 mm in maximum height. Abdomen recurved and gradually tapering toward the tip. Antennae 2-segmented, attached to rather ventral surface of head; 1st segment short, semispherical, 51-57 μm in maximum width; 2nd segment long and stick-like, 222-228 μm long, with about 18 standing or substanding setae and 3 decumbent setae. Labium 3-segmented, 165 μm long and 74 μm broad; apical segment with 9 pairs of setae; medial segment with a pair of setae; basal segment with 4 pairs of setae. Two pairs of spiracles relatively large, about 40 μm in maximum diameter, located at lower 1/5 of thorax. One circulus present, circular, 40 μm in maximum diameter, situated in the middle of 4th abdominal sternite. Apical abdominal segment with 5 pairs of long setae, of which 3 pairs are about 462 μm long, and 2 pairs are 275 μm long.

Legs short. Fore femorotrochanter 155 μm long, fore tibia 97 μm and fore



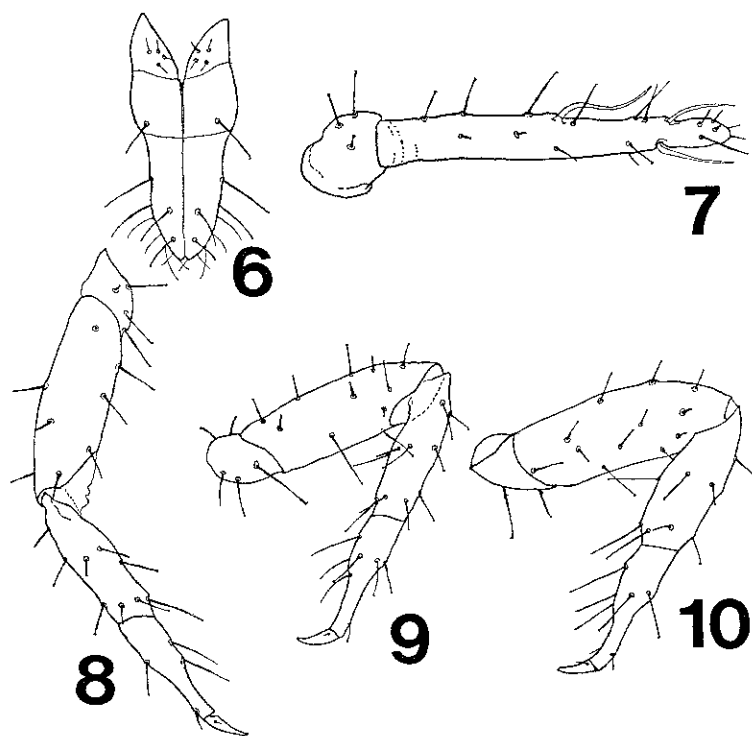
Figs. 1-5. *Eumyrmococcus nipponensis* sp. nov., ♀. — 1, Lateral view; 2, dorsal and ventral view; 3, setae of the ventral surface of body; 4, claw; 5, apical segment of abdomen, dorsal and ventral view.

tarsus 77 μm , claw ca. 29 μm ; middle femorotrochanter 155 μm long, middle tibia 86 μm , middle tarsus 84 μm , claw ca. 26 μm ; hind femorotrochanter 155 μm long, hind tibia 86 μm and hind tarsus 84 μm , claw ca. 26 μm . Each leg segment with setae; the longest one on fore femur 88 μm long; the longest one on fore tibia 88 μm long. Fore tibia with 12 setae, 2 near base, 5 near middle and 5 near tip; middle and hind tibia each with 13 setae, 2 near base, 5 near middle and 6 near tip. Claws long and narrow, with a pair of setose digitules.

Dorsal setae extremely short, decumbent, and concaved at apex. Head and ventral surface of body with short, weakly capitate setae of 28 μm long.

Color white; head, legs, apical segment of abdomen slightly brownish.

Third instar female. Similar to adult female, but smaller in size and with fewer body setae. Body length 1.13 mm except for apical setae. Cephalothorax 0.30 mm in length, 0.45 mm in maximum width, 0.46 mm in maximum height. First antennal segment 38 μm in maximum width; 2nd segment 171 μm in length. Fore femorotrochanter 132 μm long, fore tibia 80 μm and fore tarsus 74 μm ; middle



Figs. 6-10. *Eumyrmococcus nipponensis* sp. nov., ♀. — 6, Labium; 7, antenna; 8, fore leg; 9, middle leg; 10, hind leg.

femortrochanter 143 μm long, middle tibia 91 μm and middle tarsus 83 μm ; hind femortrochanter 143 μm long, hind tibia 91 μm and hind tarsus 80 μm .

Holotype: ♀, 30. VIII. 1980, Noboritachi, Mikura-jima Is., Tokyo, Japan, K. MASUKO leg.

Paratypes: 2 ♀, 7 ♀ (third instar), same data as holotype, 1 ♀, 2 ♀ (third instar) were slide-mounted; 11 ♀, 4 ♀ (third instar), 8. VIII. 1984, Tampatsu-yama, Tokunoshima Is., M. TERAYAMA leg.; 1 ♀, 8. VIII. 1984, Tampatsu-yama, Tokunoshima Is., S. KUBOTA leg.; 7 ♀, 6 ♀ (third instar), 17. X. 1984, Amboh, Yakushima Is., M. TERAYAMA leg.

Type depository: The holotype and some paratypes are kept at the National Institute of Agro-Environmental Science, and the other paratypes at the National Science Museum, Tokyo, the Osaka Museum of Natural History and author's collection.

Biological notes. The specimens were collected from rootlets of plants in nests of *Acropyga nipponensis* TERAYAMA, under stones or rotten woods on the floor of broad-leaved forests.

Remarks. The new species is distinguishable from *E. smithii* by the following

characters: 1) Size small (in *smithii* 0.70 mm in maximum width); 2) one circulus present on the venter of 4th abdominal segment (circulus absent in *smithii*); 3) antenna longer, more than 250 μ m in adult female (less than 180 μ m in *smithii*); 4) five pairs of long setae present in the apical abdominal segment (4 pairs in *smithii*).

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