

A New Species of *Nipponosega* (Hymenoptera, Chrysididae, Amiseginae) from Central Japan

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Abstract The second species of brachypterous cuckoo wasp genus *Nipponosega*, *N. kantoensis*, is described from Central Japan. Additional specimens of *N. yamanei* are recorded; its description and generic diagnosis are supplemented.

The genus *Nipponosega* was recently established by KURZENKO and LELEJ (1994) for a single species, *N. yamanei* KURZENKO et LELEJ, 1994. Though the original description of the type species was based on a female specimen, the author was able to examine four additional specimens of *Nipponosega* obtained from various sources. They are separable into two species, one of which will be described as a new species in this paper.

Nipponosega KURZENKO et LELEJ, 1994

In order to incorporate the characteristics of the new species and variation of the type species, the generic diagnosis of *Nipponosega* should be revised as follows (underlined parts are revised): the distance between posterior ocelli approximately 2.0–2.5 times as wide as that between posterior ocellus and eye, and 0.67–1.50 times as wide as that between posterior and anterior ocelli; pronotum approximately 1.2–1.5 times as long as the combined medial length of mesoscutum and scutellum; scutellum 0.38–0.57 times as long as mesoscutum; posterior surface of propodeum with medial carina sometimes divided above into two parts and forming a small triangle with transverse metanotal ridge.

Remarks. All amisegine species are considered to be parasitic on phasmatid (walking sticks) eggs which are either scattered on leaf litters on the ground or glued to plants (KROMBEIN, 1983). All the known species of walking sticks inhabiting Kanto district, wherein all the known specimens of *Nipponosega* species were collected, scatter their eggs to the ground (YASUMATSU, 1965). However, at least three out of the five specimens of *Nipponosega* species so far collected were found above the ground level, i.e. one specimen of *Nipponosega* (T. NAMBU leg.) was found on a low plant about 50–60 cm above the ground (T. NAMBU pers. comm.), one specimen of the new species (H. NAGASE leg.) was

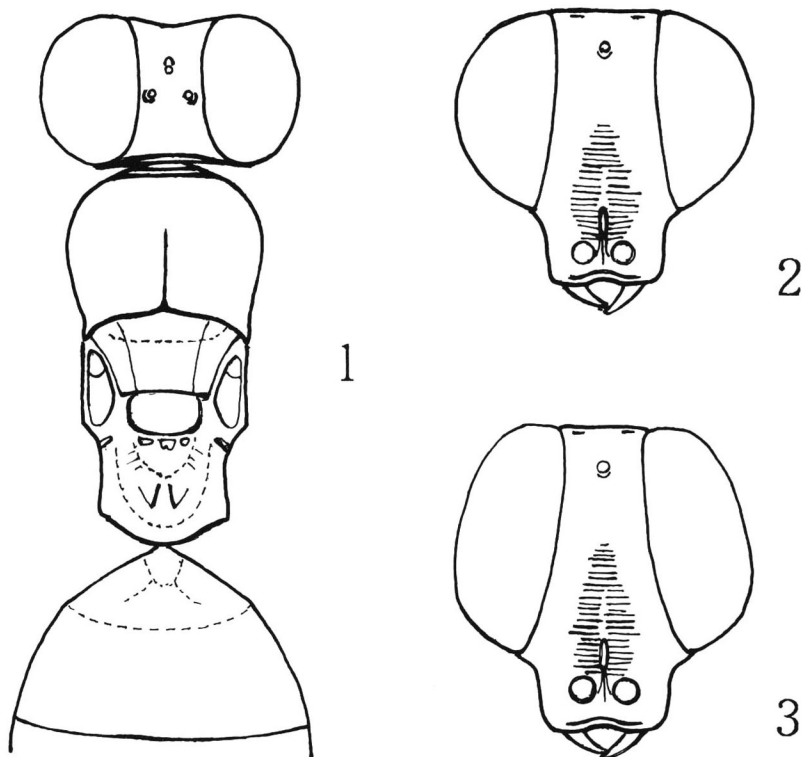
collected on a wall of an old wooden house about 100 cm above the ground, and the holotype of *N. yamanei* was collected on plant leaves along a forest road (KURZENKO & LELEJ, 1994). Since ground surface is likely to be normal habitat of *Nipponosega* species, we need to accumulate more collecting data, especially from ground surface, to confirm their real habitats.

Nipponosega kantoensis sp. nov.

[Japanese name: Kantoh-nanafushi-seibou]

(Figs. 1, 2)

Description. Female. Body length 3.0–4.0 mm. Head, seen from front (from the angle at which posterior ocelli can be barely seen) 1.1–1.2 times wider than high (from apex of clypeus to vertex). Eyes large, ocular distance at front ocellus level 0.35–0.37 times head width, inner margin diverging below, with abundant pale short erect setae which are equal to or shorter than front ocellus diameter. Scapal basin concave, cross-ridged and shining, with ridgeless irregular linear shining area in the center of the upper part, and a narrow groove below,



Figs. 1–3. *Nipponosega kantoensis* sp. nov. and *N. yamanei*, females. —1, *N. kantoensis*, dorsal view; 2, same species, face; 3, *N. yamanei*, face.

which continues as a furrow to the base of antennal sockets. Frons to vertex except scapal basin with numerous large but shallow punctures; from ocellar area to sides of scapal basin distance between punctures equal to or less than puncture diameter, punctures sparser toward vertex where space between punctures more than puncture diameter. Ocelli placed in small depressions so that ocelli are hardly raised from surrounding surface, and small pits are left in front of anterior ocellus and dorso-lateral sides of posterior ocelli. OOD 0.4 times POD, distance between posterior and anterior ocelli 0.66–0.80 times POD. Clypeus short, length less than antennal socket diameter, polished with microsculpture, margin widely and shallowly emarginate. Mandible simple. Head except scapal basin with sparse pale hair, some of which, especially those along inner margin of eyes and vertex, are fairly long. Occipital carina distinct, becoming obscure at about middle of eyes.

Pronotal width 0.8 times head width. Pronotal length (from front line of collar to center of posterior margin) 0.75–0.79 times pronotal width. Pronotum strongly convex from side to side. Carina of collar continuing along lateral margin of pronotum and ending in an angled lamella at postero-lateral part of pronotum. Postero-dorsal corners of pronotum, seen from side, forming rectangular pronotal lobes with small pronotal pits in front and several short carinae below the pits. Posterior margin of pronotum centrally slightly depressed, forming a small pit, distinct medial pronotal furrow originating from the pit extending upto two-thirds of pronotal length. Pronotum polished, dorso-central part with scattered small and shallow punctures, size of punctures in this area smaller than those of vertex, punctures larger and denser toward lateral part of pronotum where space between punctures is still more than puncture diameter. Mesoscutum with anterior one-third sloping forward, postero-lateral corners angled, scattered with shallow punctures which are smaller than those on vertex. Notauli conspicuous, diverging anteriorly. Scutellum sparsely with large shallow punctures. Metanotum (sensu KIMSEY & BOHART, 1990) long, hemioval in shape and covering much of dorsal surface of propodeum. Enclosure of metanotum more or less semicircular, with punctures of the same size as those on scutellum and a few small irregular depressions inside; a pair of posteriorly directed triangular denticles posterior to enclosure, pointed apices of which are directed slightly inward seen from above. Several short carinae radiating out from outer margin of enclosure. Anterior half of metapleuron-lateral-propodeum-complex glabrous and shining, posterior half with irregular oblique carinae. Propodeum more or less box-shaped, dorso-lateral corners forming blunt angles. Lateral surface of propodeum separated from dorsal and posterior surfaces by weak but distinct carinae. Dorsal and posterior surfaces of propodeum separated by several indistinct carinae. Posterior surface of propodeum with a medial longitudinal carina from which transverse carinae run for about

one-third of posterior surface width. This carinated area is polished but in the area outside of carinated part the posterior surface of propodeum is roughened with tendency of oblique striations.

Hind coxa ventrally somewhat dilated and with carinate margin.

Abdomen polished with sparse microscopic punctures bearing setae. First tergite dorsally divided by a weak semicircular ridge into posterior horizontal part and anterior slanting part. Sides of tergites folded down ventrally forming ridges.

Thorax, abdomen and legs sparsely bearing rather long erect setae, somewhat denser in femora. Mesopleuron, metapleuron, lateral surface of propodeum and anterior half of first tergite almost glabrous. Tibiae and tarsi covered with dense shorter setae, mixed with some long ones on tibiae. Setae on posterior surface of propodeum pointing upward.

Head black, except for labrum and mandible light brown, tip of mandible yellowish brown. Antenna black, scape, pedicel and flagellomere 1 except for its tip semi-transparent brownish yellow, flagellomeres 4–10 brownish below, flagellomeres 2 and 11 partly brownish yellow. Pronotum reddish. Metapleuron-lateral-propodeum-complex dark brownish red. Wing pad area and metanotal enclosure reddish brown; rest of thorax dark brown. First abdominal tergite with anterior slanting surface reddish brown or dark brown and ventral side yellowish brown or dark brown; rest of abdomen dark brown. Legs semi-transparent and brownish yellow. All setae yellowish.

Male. Unknown.

Types. Holotype. Female, 11–VIII–1991, Tonbo-Park, Sueno, Yoriimachi, Saitama Pref., Japan, T. NAMBU leg., deposited in National Science Museum, Tokyo. Paratype. One female, 11–VII–1991, Kamakura, Kanagawa Pref., Japan, H. NAGASE leg. (coll. H. NAGASE).

Remarks. Though similarly looking, *N. kantoensis* can be easily separated from *N. yamanei* by the shape of head and resulting measurements (Figs. 2–3). In *N. yamanei*, the widest part of head in frontal view is lower than the middle of eye height (about one-third from the bottom), while in *N. kantoensis* the widest part is at about the middle. The frons is narrower in *N. yamanei*. In *N. yamanei*, the maximum interocular distance (at the lower end of the face) is 1.7 times or more than the minimum interocular distance (at frons), while it is 1.5 times or less in *N. kantoensis*. The distance between anterior and posterior ocelli is 1.25–1.50 times as long as POD in *N. yamanei*, while it is 0.67–0.80 times in *N. kantoensis*.

Nipponosega yamanei KURZENKO et LELEJ, 1994

[Japanese name: Yamane-nanafushi-seibou]

(Fig. 3)

Material examined. One female, 15-IX-1951, Nagatoro, Chichibu, Saitama Pref., Japan, K. SATO leg. (coll. Natn. Sci. Mus., Tokyo). 1 female, 1-X-1988, Mt. Hiwada, Hidakamachi, Saitama Pref., Japan, T. NAMBU leg. (coll. M. TERAYAMA).

Remarks. Taking the variation of two additional specimens into account, the original description should be supplemented as follows: Length 3.0-4.0 mm. Head width about 1.0 times height. Interocular distance at anterior ocellus 0.26-0.29 times head width. Distance between posterior ocelli 0.67-0.80 times as long as distance between posterior and anterior ocelli. Metapleuron and lateral surface of propodeum glabrous and shining with irregular oblique striae in the lower or posterior half. Integument color somewhat variable, i.e. antennae with second flagellar segment light yellow above, brownish below, other ones black, brownish below, tip of terminal segment sometimes pale brown; anterior part of metanotum reddish brown to almost black; tegulae light brown to dark brown; metasoma reddish brown to black, last segment lighter colored.

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References

- KIMSEY, L. S., & R. M. BOHART, 1990. The Chrysidid Wasps of the World. Oxford University Press, New York, 626 pp.
- KROMBEIN, K. V., 1983. Biosystematic studies of Ceylonese wasps. XI: A monograph of the Amiseginae and Loboscelidiinae (Hymenoptera, Chrysididae). *Smiths. Contr. Zool.*, (376): 1-79.
- KURZENKO, N. V., & A. S. LELEJ, 1994. *Nipponosega yamanei* gen. et sp. nov., a new remarkable cuckoo wasp (Hymenoptera, Chrysididae, Amiseginae) from Japan. *Bull. natn. Sci. Mus., Tokyo*, (A), **20**: 83-86.
- YASUMATSU, K., 1965. Prisomeridae, Pachymorphidae and Necrosciidae. In: *Iconographia Insectorum Japonicorum Colore Naturali Edita*, **3**: 55-58. Hokuryukan, Tokyo. (In Japanese.)

