

[Short Communication]

New records of *Thanatus vulgaris* Simon 1870 (Araneae: Philodromidae) from Japan

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Abstract – *Thanatus vulgaris* Simon 1870 is newly recorded from Japan. This species was known as a species distributed in Europe, the Far East, Central and East Asia, North America, South Africa and Australia. In East Asia, it was recorded from China and Korea. In Japan, it was collected at a livestock farm and is considered to be anthropogenically distributed, having been brought in with imported feed.

Key words – alien species, Araneae, artificial distribution

There are 99 species of *Thanatus* recorded in the world (World Spider Catalog 2022), and five species are known from Japan: *Thanatus arcticus* Thorell 1872, *T. bungei* (Kulczynski 1908), *T. miniaceus* Simon 1880, *T. nipponicus* Yaginuma 1969, and *T. roseofemoralis* (Karsch 1879) (Ono & Ogata 2018; Tanikawa 2022). The World Spider Catalog 2022 includes Japan in the distributional range of further two species, *T. atratus* Simon 1875 and *T. formicinus* (Clerck 1757). However, *T. formicinus* in Yaginuma (1960, 1971) was a misidentification of *T. miniaceus* (Yaginuma 1986) and the species is no longer confirmed in Japan. *Thanatus atratus* is distributed in western Russia (Logunov 1996), and no record from Japan is recognized.

Recently, I collected several specimens of an unknown *Thanatus* species in Mie Prefecture, Honshu, Japan. As a result of the taxonomic examination of these specimens, the spider was identified as *Thanatus vulgaris* Simon 1870, which is newly recorded from Japan. I hereby report on the spider, along with a short description and a note on the environment in which the spider was found. The specimens used in this study are deposited in the arachnid collection of Department of Zoology, National Museum of Nature and Science, Tsukuba.

Abbreviations: ALE, anterior lateral eye; AME, anterior median eye; d, dorsal; F, adult female(s); MOA, median ocular area; MOA-L, length of MOA; MOA-WA, anterior width of MOA; MOA-WP, posterior width of MOA; PLE, posterior lateral eye; PME, posterior median eye; pr: prolateral; rt, retrolateral; v, ventral.

Taxonomy

Family Philodromidae

Thanatus vulgaris Simon 1870

[Japanese name: Ô-yadokari-gumo]

(Figs. 1–6)

Thanatus vulgaris Simon 1870, p.328.; Paik 1979, p. 123, figs. 27–35.; Logunov 1996, p. 196, figs. 194–197, 204–206.; Song, Zhu & Chen 1999, p.478, fig. 273B, M. See the World Spider Catalog (2022) for the complete taxonomic list.

Specimens examined. 2F 30-VIII-1994, Ikemura, Meiwa-cho, Taki-gun, Mie Prefecture (NSMT-Ar 22138, NSMT-Ar 22139); 1F 18-VI-2010, Takanoo-cho, Tsu-shi, Mie Prefecture (NSMT-Ar 22140); 1F 21-VI-1998, Mizusawa-cho, Yokkaichi-shi, Mie Prefecture (NSMT-Ar 22141). All specimens were collected by Ken-ichi Kumada.

Description based on the Japanese specimens.

Measurements. Female (NSMT-Ar 22138). Carapace 3.17 long and 2.73 wide. Abdomen 5.35 long and 3.75 wide. Distances between eyes: AME-AME 0.18, AME-ALE 0.11, PME-PME 0.34, PME-PLE 0.29. Median ocular area: MOA-WA 0.36, MOA-WP 0.50, MOA-L 0.48. Clypeal height 0.44. Cheliceral length 1.13. Length of leg segments (in mm): [femur + patella + tibia + metatarsus + tarsus = total]: I, 3.13 + 1.33 + 2.50 + 2.10 + 1.27= 10.33; II, 3.70 + 1.67 + 3.00 + 2.50 + 1.40= 12.27; III, 3.23 + 1.23 + 2.40 + 2.13 + 1.07= 10.06; IV, 3.67 + 1.30 + 2.93 + 2.53 + 1.17= 11.60.

Spination (according to Ono 1988) of leg I: femur d 0-1-0, pr and rt 0-1-1-1, v 0; patella d 0-0-1, pr 0-1-0, rt and v 0; tibia d 0, pr 1-0-1, rt 1-1-1, v 2-2-2; metatarsus d 0, pr 1-1-0, rt 1-0-0, v 2-2-0.

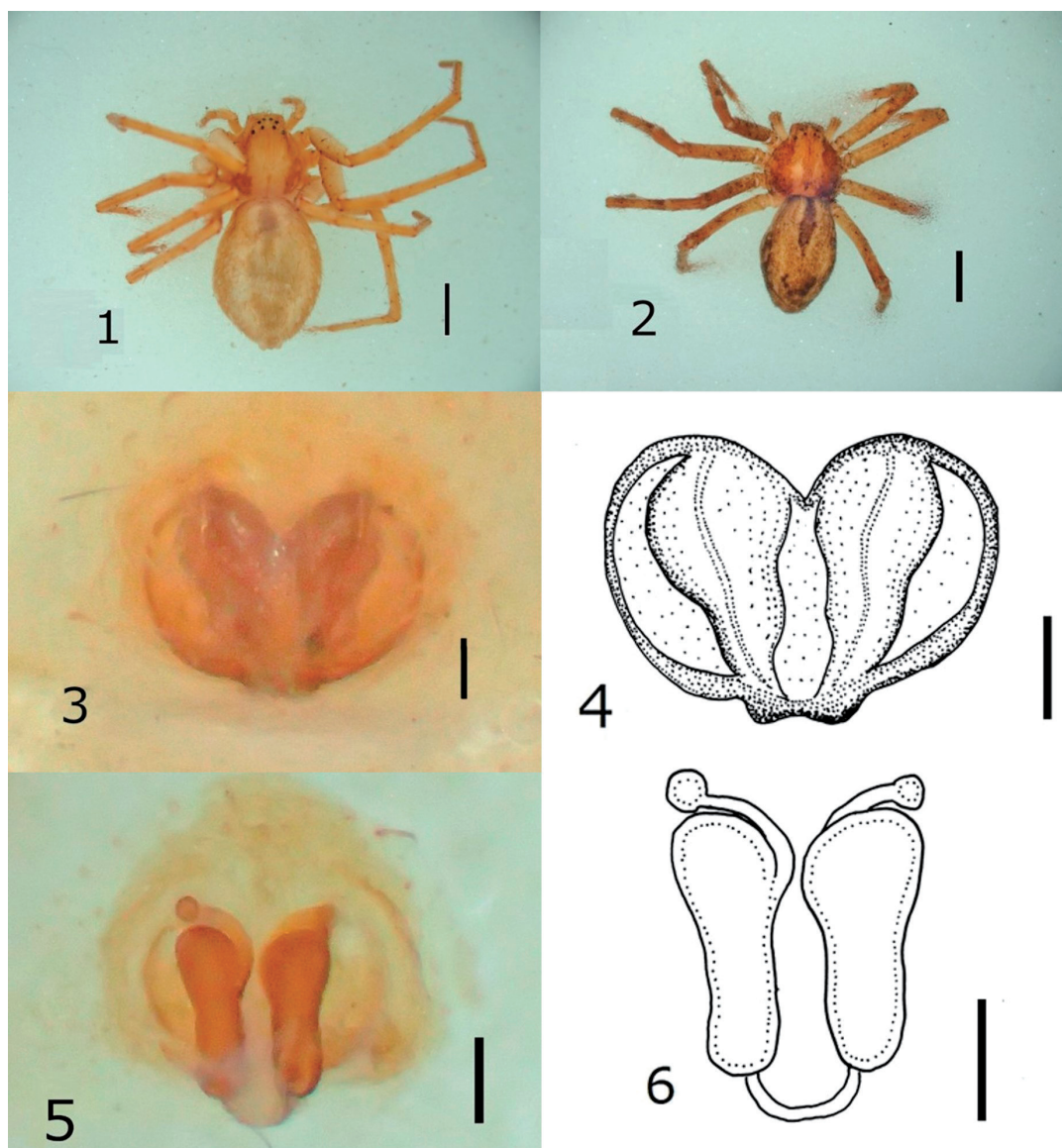
Shape and color: The shape of the body is Figs. 1–2 (NSMT-Ar 22138, NSMT-Ar 22141). Cephalothorax light reddish brown, abdomen pale yellowish brown. Both sides of the carapace, thoracic groove, abdominal cardiac pattern and its circumference slightly darker; posterior part of the abdomen having a V-shaped patch. Dorsal sides of legs light reddish brown; ventral sides light yellowish brown.

Variation. A darker specimen is also obtained as in Figs. 2 (NSMT-Ar 22141).

Notes on the environment of the habitat. The specimens were obtained at the feed compounding stations of livestock farms in Meiwa, Tsu and Yokkaichi. The species is widely distributed in the world and is assumed to have been introduced with imported feed. Japan relies on imports for most of the livestock feed. It was surmised that the *Thanatus* spiders have been introduced from abroad by attaching to the livestock feed, which is imported primarily from the United States, Canada, Australia and Argentina.

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Figs. 1–6. *Thanatus vulgaris* Simon 1870. 1, habitus of female (NSMT-Ar 22138), dorsal view; 2, habitus of female (NSMT-Ar 22141), dorsal view; 3–4, epigyne, ventral view; 5–6, vulva, dorsal view (3–6, NSMT-Ar 22139). Scales = 2 mm (1–2); 0.2 mm (3–6).

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