

A new species of the spider genus *Octonoba* (Araneae: Uloboridae) from Takarajima Is., the Tokara Isls., Japan

Akio Tanikawa

Laboratory of Biodiversity Science, School of Agriculture and Life Sciences, The University of Tokyo,
1-1-1, Yayoi, Bunkyo-ku, Tokyo, 113-8657 Japan
E-mail: dp7a-tknw@j.asahi-net.or.jp

Abstract — A new species of the uloborid spider, *Octonoba yoshidai*, is described using the specimens collected in Takarajima Is., the Tokara Isls., Japan. This new species can be distinguished from *Octonoba grandiconcava* by epigynum having posterior projection, or the shape of median apophysis bulb of male palp.

Key words — taxonomy, new species, spider, Uloboridae, Tokara Islands, Takarajima Island, *Octonoba yoshidai*.

Yoshida (1981, 1983a, 1983b) reviewed that the species of *Octonoba* are differentiated among the Nansei Isls., South West Japan. Including nine species described by him, ten *Octonoba* species have been recorded from the Nansei Isls. (Yoshida 1981, 1983a, 1983b), in contrast to four species from the Japan mainland (Yoshida 1980). Although he examined many specimens from various parts of the Nansei Isls., the specimens from the Tokara Isls. were not included.

Recently, I examined *Octonoba* specimens collected from Takarajima Is. of the Tokara Isls. and found that they belong to neither of the known species. It will be described in this paper under the name *Octonoba yoshidai*. Holotype and paratypes designated in this paper are deposited in the collection of the Department of Zoology, National Science Museum, Tokyo. The abbreviations used in this paper are as follows: MAB, median apophysis bulb; MAS, median apophysis spur; NSMT, National Science Museum, Tokyo.

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Taxonomy

Genus *Octonoba* Opell 1979

Octonoba yoshidai new species

[Japanese name: Takarajima-uzu-gumo]

(Figs. 1–5)

Type series. Holotype: ♀, 24-VIII-2000, near Takarajima Port, Y. G. Baba leg. (NSMT-Ar 5892). Paratypes: 2♀, same data as the holotype (NSMT-Ar 5893–5894); 1♀, Sentakuba-no-ana Cave, H. Tamura leg. (NSMT-Ar 5895); 1♂, 2-V-2005, Osezaki-A Cave, H. Yoshigou leg. (NSMT-

Ar 5896); 1♂, 7-V-2005, Mt. Megami-yama, H. Tamura leg. (NSMT-Ar 5897); 1♀1♂, 1-V-2005, Kan-non-do Cave, H. Yoshigou leg. (NSMT-Ar 5898–5899); 1♂, 30-IV-2005, Uemiya-no-ana Cave, H. Yoshigou leg. (NSMT-Ar 5900); 1♂, 3-V-2005, Mukura-no-ana Cave, H. Yoshigou leg. (NSMT-Ar 5901). All the specimens were collected in Takarajima Is., the Tokara Isls., Kagoshima Pref., Japan.

Description. Measurements. Based on the holotype ♀ and paratype 1♂ (NSMT-Ar 5897), measurements in parentheses indicate the range among specimens used in this paper. Body ♀4.90 (4.41–4.90), ♂3.91 (3.16–3.91) long. Carapace ♀1.69 (1.44–1.69), ♂1.51 (1.50–1.65) long; ♀1.65 (1.07–1.65), ♂1.36 (1.34–1.47) wide. Length of legs [female/male; tarsus + metatarsus + tibia + patella + femur = total]: I, 1.10 + 2.97 + 2.60 + 0.83 + 3.00 = 10.50 / 1.03 + 2.60 + 2.29 + 0.66 + 2.49 = 9.07; II, 0.73 + 1.47 + 1.10 + 0.60 + 1.67 = 5.57 / 0.69 + 1.46 + 1.20 + 0.49 + 1.57 = 5.41; III, 0.57 + 0.97 + 0.63 + 0.43 + 1.17 = 3.77 / 0.56 + 0.89 + 0.86 + 0.49 + 1.31 = 4.11; IV, 1.03 + 1.50 + 1.50 + 0.63 + 1.90 = 6.56 / 0.83 + 1.31 + 1.20 + 0.34 + 1.49 = 5.17. Abdomen ♀3.52 (3.14–3.92), ♂2.38 (1.84–2.43) long; ♀1.84 (1.62–2.56), ♂1.25 (0.84–1.25) wide.

Female and male. Carapace longer than wide [length/width ♀1.27 (1.16–1.34), ♂1.11 (1.09–1.13)]. Median ocular area wider than long [length/width ♀0.90 (0.77–0.90), ♂0.79 (0.75–0.79)]; wider behind than in front [anterior width/posterior width ♀0.72 (0.67–0.77), ♂0.75 (0.69–0.75)]. Labium longer than wide in female, almost as long as wide in male [length/width ♀1.19 (1.06–1.55), ♂1.00 (0.81–1.00)]. Sternum longer than wide [length/width ♀1.68 (1.35–1.68), ♂1.43 (1.26–1.49)]. Length of leg I/length of carapace ♀7.89 (5.55–7.89), ♂6.01 (5.82–6.01). Male palp (Fig. 2): embolus hidden by swollen MAB in ventral view; MAB with two sclerotized parts (Fig. 2, arrow); MAS concave. Abdomen longer than wide [length/width ♀1.91 (1.53–1.94), ♂1.90

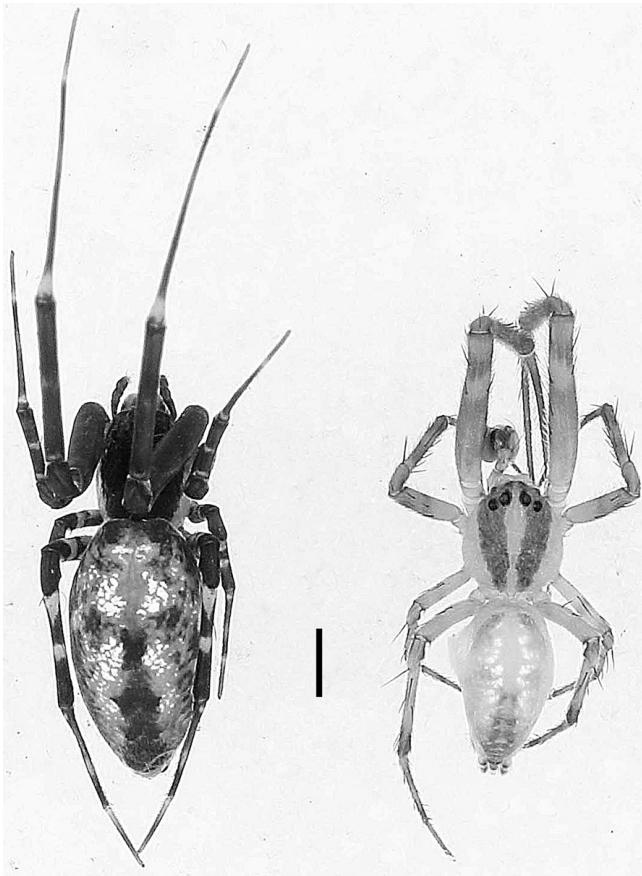


Fig. 1. *Octonoba yoshidai* new species — left, appearance of female (holotype, NSMT-Ar 5892); right, appearance of male (paratype, NSMT-Ar 5897). (Scale: 1 mm)

(1.71–2.19)]. Epigynum: with a pair of posterior projections (Fig. 3); opening situated at end of projection (Figs. 4–5); copulatory duct long and winding (Fig. 5).

Coloration and markings. Female (Fig. 1): carapace blackish brown with yellow border; dorsum of abdomen dusky white with black markings. Male (Fig. 1): carapace dark brown with yellow longitudinal midline and border; dorsum of abdomen dusky white with dark colored marking.

Remarks. The present new species resembles *Octonoba grandiconcava* Yoshida 1981, but can be distinguished from the latter by the following points. 1) Female: epigynum of *yoshidai* have posterior projection (Fig. 3), but not in *grandiconcava* (Yoshida 1981, fig. 7). 2) Male: sclerotized parts of MAB closely situated in *yoshidai* (Fig. 2, arrow), but a little apart in *grandiconcava* (Yoshida 1981, fig. 6).

Distribution. Japan (Takarajima Is., the Tokara Isls.)

Etymology. The specific name is dedicated to Dr. Hajime Yoshida, Yamagata Prefectural Museum, who endeavored to study on *Octonoba* spiders of Japan.

References

- Yoshida, H. 1980. Six Japanese species of the genera *Octonoba* and *Philoponella* (Araneae: Uloboridae). *Acta Arachnol.*, 29: 57–64.
 Yoshida, H. 1981. Seven new species of the genus *Octonoba* (Araneae: Uloboridae) from the Ryukyus, Japan. *Acta Arachnol.*, 30: 21–32.
 Yoshida, H. 1983a. A new species of the genus *Octonoba* (Araneae, Uloboridae) from the Iheya Islands, Okinawa Prefecture, Japan. *Annot. Zool. Jap.*, 56: 42–45.
 Yoshida, H. 1983b. A new spider of the genus *Octonoba* (Araneae, Uloboridae) from Uotsuri-jima of the Senkaku Islands, Japan. *Bull. Biogeogr. Soc. Japan*, 38: 35–38.

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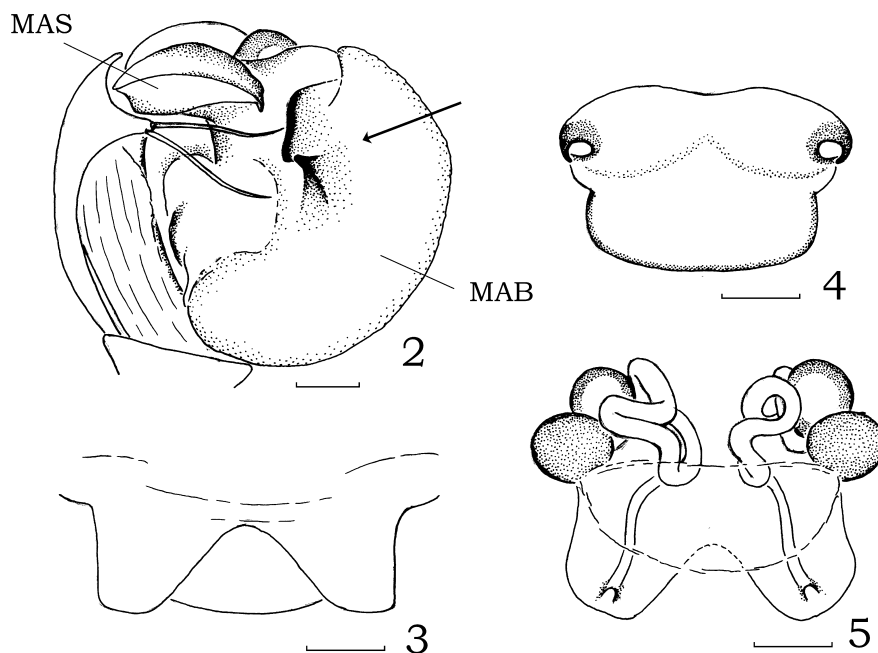


Fig. 2–5. *Octonoba yoshidai* new species — 2, male palp, ventral view (paratype, NSMT-Ar 5897); 3, epigynum, ventral view (holotype, NSMT-Ar 5892); 4, same, posterior view (paratype, NSMT-Ar 5895); 5, female internal genitalia, dorsal view (paratype, NSMT-Ar 5893). MAB, median apophysis bulb; MAS, median apophysis spur. (Scales: 0.1 mm.)