Acta Arachnologica, 60(1): 1–4, September 30, 2011

Descriptions of the females of two Japanese jumping spiders, *Neon nojimai* and *Spartaeus bani* (Araneae: Salticidae)

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Abstract — The females of salticid spiders, *Neon nojimai* Ikeda, 1995 and *Spartaeus bani* (Ikeda, 1995) are described for the first time.

Key words — Salticidae, *Neon, Spartaeus*, Japan

I described *Neon nojimai* Ikeda, 1995 and *Mintonia bani* Ikeda, 1995, which were both males (Ikeda 1995a, b), and their females have been unknown. Recently, I found their females in the specimens collected in Japan, which are described here.

The specimens used for this study are deposited in the collection of the National Museum of Nature and Science, Tokyo.

The following abbreviations are used: ALE, anterior lateral eye; AME, anterior median eye; p, prolateral; PLE, posterior lateral eye; PME, posterior median eye; r, retrolateral.

Description

Neon nojimai Ikeda, 1995
(Figs. 1–7)

Neon nojimai Ikeda, 1995, p.33; Ono, Ikeda & Kono, 2009, p.587.

Specimens examined. 1♀, Shimo-ichiki, Mihama-cho, Minami-Muro-gun, Mie Pref., Japan, 20–III–1993, T. Shiozaki leg. (NSMT-Ar 9068); 1♀, Kawauchi, Amami-shi, Kagoshima Pref., Japan, 16–III–2008, M. Yoshida leg. (NSMT-Ar 9069).

Description of female. Measurement (in mm) [NSMT-Ar 9068/NSMT-Ar 9069]. Body length 3.60/2.60; prosoma length 1.34/1.12, width 1.46/1.17, height 0.96/0.91; opisthosoma length 2.08/1.55, width 1.95/1.34. Eye fields: Width of eye row I 1.15/1.09, width of eye row III 1.24/1.17, length of eye row 0.78/0.73, half length of eye row 0.37/0.37, AME diameter 0.33/0.33; ratio ALE/AME 0.65/0.72, ALE/PLE 1.04/1.21, PME/PLE 0.20/0.21.

Length of legs (NSMT-Ar 9068) as shown in Table 1 and spiniformation of legs of the same specimen as shown in Table 2.

Female genitalia (Figs. 2–4). Epigynum with large round atria anterior to the twinned tubes of spermathecae. Internal structure as shown in Figs. 3–4.

Coloration and markings (Figs. 1, 5–7). Prosoma yellowish brown with white hairs, surroundings of eyes black with white hairs, blackish spots on posterior part as same as in male. Clypeus brown with white hairs. Sternum brown with dark margin. Labium, maxillae and chelicerae yellowish brown. Opisthosomal dorsum in ethanol gray with dark spots with some anterior white hairs, and covered without hairs. Venter of opisthosoma gray and hairless. Legs I: All segments brown except metatarsi with blackish dorsal distal end. Leg II, III and IV: All segments pale brown with blackish end, femora with blackish band on the middle. The specimen from Kagoshima darker than that from Mie as in Fig. 7 and with blackish hairs.

Distribution. Japan (known from Okayama, Mie and Kagoshima Pref.)

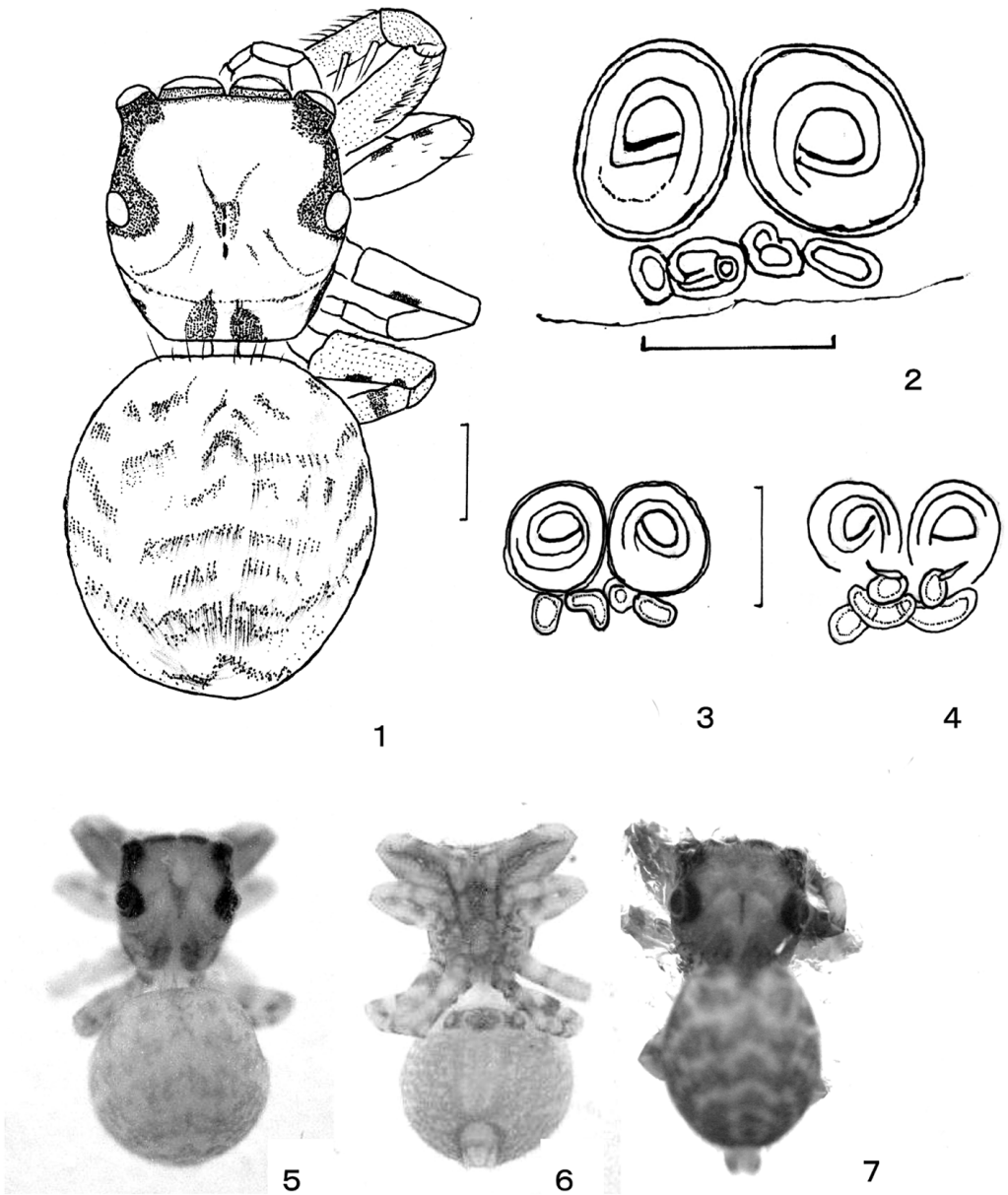
Remarks. The female of *Neon nojimai* resembles that of *Neon minutus*, but can be easily distinguished from each other by the structure of epigynum.

Spartaeus bani (Ikeda, 1995)
(Figs. 8–15)

Mintonia bani Ikeda, 1995, p.118.
Spartaeus bani: Ono, Ikeda & Kono, 2009, p.562.

Specimens examined. 1♀, Mikyo, Tokunoshima Island, Kagoshima Pref., Japan, 8–V–1997, Takeshi Sasaki leg. (NSMT Ar-9070); 2♂ and 1 nymph, same data (NSMT Ar-9071).

Description. Measurement (in mm) of the female (NSMT Ar-9070). Body length 8.21; prosoma length 3.47, width 2.67, height 1.80; opisthosoma length 4.30, width 2.33. Eye fields: Width of eye row I 2.42, width of eye row III 2.08, length of eye row 1.46, half length of eye row 0.52, AME diameter 0.67; ratio ALE/AME 0.75, ALE/PLE 1.20, PME/PLE 0.70. Length of legs as shown in Table 3.



Figs. 1–7. *Neon nojimai*, female. — 1, dorsal appearance; 2, epigynum; 3, female internal genitalia, ventral view; 4, same, dorsal view; 5, Mie specimen, dorsal appearance; 6, same, ventral appearance; 7, Amami specimen, dorsal appearance. (Scales: 1, 0.5 mm; 2–4, 0.2 mm)

Table 1. Measurement of leg segments of *Neon nojimai*, female (in mm).

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	0.97	0.42	0.75	0.40	0.28	2.82
II	0.77	0.33	0.50	0.38	0.30	2.28
III	0.85	0.42	0.50	0.43	0.33	2.53
IV	0.75	0.43	0.58	0.58	0.33	2.67

Table 2. Spiniformation of legs of *Neon nojimai*, female. [No spine on other segments.]

Leg	Tibia	Metatarsus	Tibia	Metatarsus
	Ventral		dorsal	
I	2–2–2–0	2–2	none	none
II	1r–1r–2	2–2	0–0–1p–0	1p–1p
III	0–0–1	2–2	0–2–0	2–2
IV	0–0–1	2–3	0–1p–0	2–2

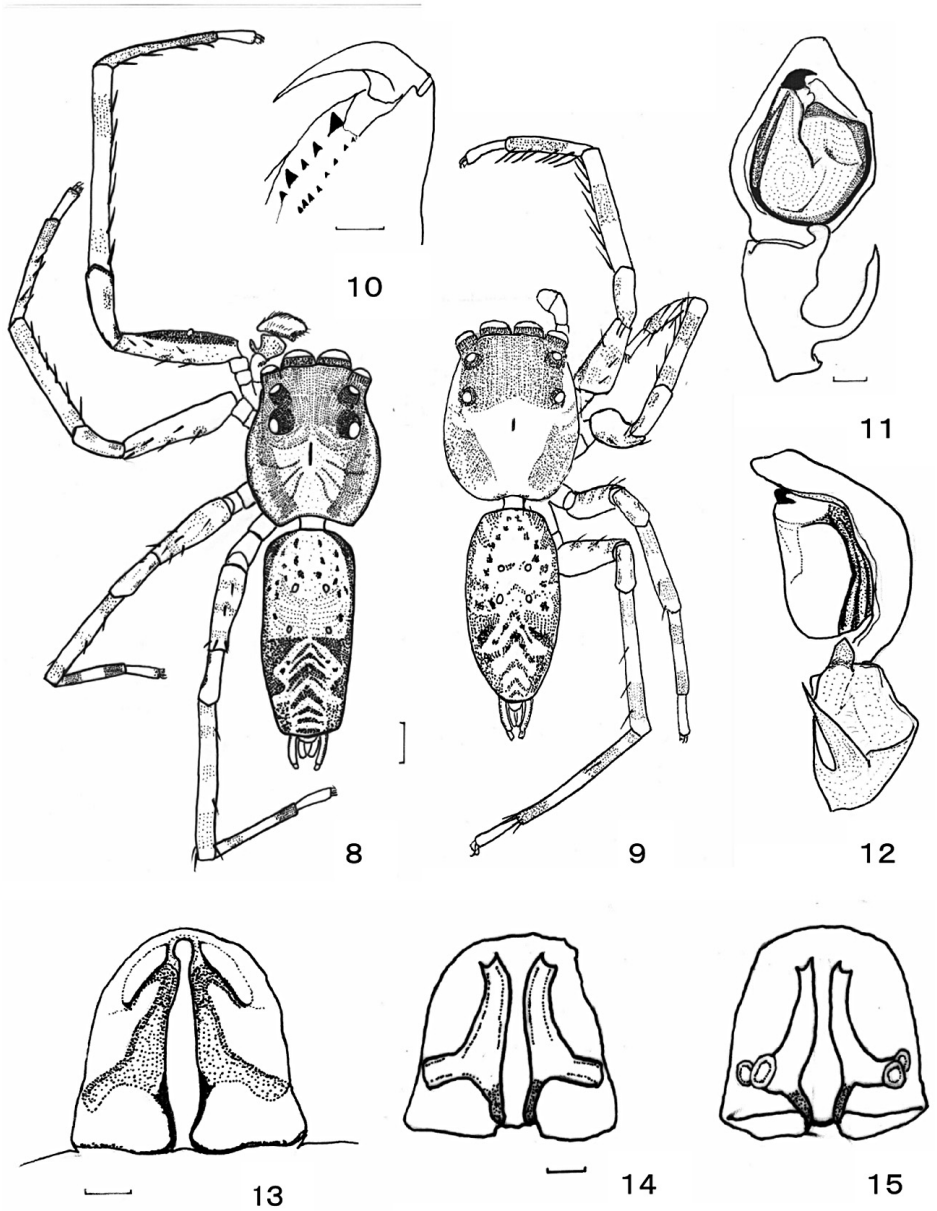
Table 3. Measurement of leg segments of *Spartaeus bani*, female (in mm).

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	3.00	1.63	2.93	2.07	0.83	10.46
II	2.70	1.33	2.47	1.67	0.77	8.94
III	3.00	1.33	2.40	2.13	1.03	8.86
IV	3.67	1.33	3.13	3.13	1.17	12.43

Spiniformation of legs as shown in Table 4.

Female genitalia (Figs. 13–15). Epigynum large, blackish brown with copulatory openings anteriorly, seminal ducts elongated posteriorly and connected to receptacles.

Coloration and markings of males examined in this study (Fig. 8). Same as the holotype (NSMT Ar-3295) (Ikeda,



Figs. 8–15. *Spartaeus bani*, male and female. — 8, male dorsal appearance; 9, female dorsal appearance; 10, teeth of female chelicera; 11, male palp, ventral view; 12, same, retrolateral view; 13, epigynum; 14, female internal genitalia, ventral view; 15, same, dorsal view. (Scales: 8–9, 1.0 mm; 10–15, 0.2 mm)

Table 4. Spiniformation of legs of *Spartaeus bani*, female (dorsal/ventral). [No spine on other segments.]

Leg	Femur	Patella	Tibia	Metatarsus
I	1–0–1–1p–1–1p–2/none	none/none	none/2–1p–2–2–2–1p	none/0–2–2–2–2
II	0–1–2–1 • 1r–1p–3/none	none-none	none/2–1p–2–2–2–1p	none/0–2–2–2–2
III	0–1–1–3/none	0–2–0/none	0–0–0–1r–0/0–0–2	0–0–1/0–0–1r–0
IV	0–1–1–3/none	0–1r–0/none	0–1r–0–1r–0/0–0–1p–2	0–0–2/0–2–2

1995b).

Female coloration and markings (Fig. 9). Prosoma paler than that of male, the cephalic part covered with brownish black hairs and white hairs, the thoracic part with lateral sides covered with short brownish black hairs. Eyes with black surrounds, fringed with hairs. Clypeus brown clothed with white hairs and scattered with long black hairs. Maxillae and labium brownish yellow. Sternum yellow, slightly darkly marginated, clothed with fine, transparent hairs. Opisthosomal dorsum mottled with black, clothed with brown and white hairs and black setae. Venter of opisthosoma white with grey posterior center. Legs yellow,

tibiae and metatarsi of all legs distally dark, tibiae and metatarsi of legs III and IV proximally slightly dark.

Chericeral promargin with five teeth, retromargin with eight denticles, but five of these reduced (Fig. 10).

Distribution. Japan (Amami-Oshima and Tokunoshima Islands).

Remarks. This species resembles *Mintonia breviramus* Wanless 1984, but can be distinguished from the latter by the structure of male palp and the leg length (Figs.11–12; Wanless, 1984, 1987).

The genus *Spartaeus* resembles the genus *Mintonia*, however the leg length and the promarginal teeth on chericera are different between both the genera. The legs in *Spartaeus* are unnaturally long and slender, in male the ratio of first leg to body length is 2.58–2.75, and that of female is 1.67. The legs of *Mintonia* are moderately long, in male the ratio of first leg length to body length is 1.02–1.15, and that of female is 0.96–1.04. The leg formula of *Spartaeus* is I > IV > II ≥ III in male, and IV > I > III ≥ II in female. The leg formula of *Mintonia* is IV > III ≥ I ≥ II in male, and IV > I ≥ III > II in female (Wanless, 1987). The number of promarginal teeth on chericera of *Spartaeus* is 5–7, while that of *Mintonia* is 3 (Wanless 1984).

The male of *Spartaeus bani* has very long leg I twice as long as body length and chericeral promargin with 5 teeth (Ikeda 1995b).

Acknowledgement

I wish to express my thanks to Dr. Makoto Yoshida, Mr. Tetsuya Shiozaki and Mr. Takeshi Sasaki, for offering the specimens, and to Dr. Hirotsugu Ono for scientific advice.

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Received April 20, 2010 / Accepted November 17, 2010