Taxonomic Notes on the Genus *Scaphidium* (Coleoptera: Staphylinidae) from the Ryukyus, Japan

Hideto HOSHINA

琉球産鞘翅目ハネカクシ科 *Scaphidium* 属の分類学的知見

保科 英人

Synopsis

A new species, *Scaphidium sakura* Hoshina sp. nov., is described from Okinawa Is., the Ryukyus, Japan, and *S. kumejimaense* Hoshina et Maruyama is recorded for the first time from Ishigaki Is. and Iriomote Is. A key to Ryukyuan species of the genus *Scaphidium* is given.

Key words: *Scaphidium*, Scaphidiinae, Staphylinidae, new species, Ryukyus, Japan

The genus *Scaphidium* Olivier belongs to the tribe Scaphidiini of the subfamily Scaphidiinae in the family Staphylinidae (Newton & Thayer, 1992) and comprises 276 species in the world (Löbl, 1997, 1999; Hoshina & Maruyama, 1999; Hoshina & Morimoto, 1999). In the Ryukyus, 6 species of *Scaphidium* have hitherto been known to occur (Miwa & Mitono, 1943; Shirózu & Morimoto, 1963; Löbl, 1982; Morimoto, 1985; Hoshina & Morimoto, 1999; Hoshina & Morimoto, 1999). However, these 6 species were recorded from Amami and Okinawa Islands Groups, and no species from Yaeyama Islands Group.

Recently, I had an opportunity to examine 2 specimens collected in Okinawa Is. and 23 specimens in Ishigaki Is. and Iriomote Is. which belong to Yaeyama Islands Group. After careful examination, it has become clear that the former specimens belong to a new member of *Scaphidium* and the latter is identified as *S. kumejimaense* Hoshina et Maruyama, 1999 which has been collected only in Kumejima Is., Okinawa Islands Group. In the present paper, I am going to describe a new species from Okinawa Is., and record *S. kumejimaense* for the first time from Ishigaki Is. and Iriomote Is., and provide a key to all species of *Scaphidium* in the Ryukyus.

The holotype described in the present paper is preserved in the collection of Kanagawa Prefectural Museum of Natural History, Kanagawa.

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1) Department of Soil Zoology, Institute of Environmental Science & Technology, Yokohama National University, Yokohama, 240-8501 Japan

横浜国立大学環境科学研究センター 〒240-8501 横浜市保土ヶ谷区常盤台79-7
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Scaphidium sakura Hoshina sp. nov.
(Japanese name: Sakura-deokinokomushi)
(Figs. 1, 4, 8, 11-13, 17)

Male and Female. Coloration. Dorsum clearly bicolorous (Fig. 1). [female] head yellowish brown to brown; 1st segment of antennae light brown, 2nd-6th and about apical half of 11th brown; other segments dark brown; pronotum and elytra yellowish brown with black patches (Fig. 1); trochanter and base of femora dark brown and other parts of legs brown; propygidium and pygidium yellowish brown to brown; meso- and metasterna and venter

Figs. 8-10: antenna. 8, Scaphidium sakura Hoshina sp. nov.; 9, S. kamejimaense Hoshina et Maruyama; 10, S. brunnenum Hoshina et Morimoto. Scale: 1.0 mm for Figs. 8-10.
brown. [male] coloration of male lighter than that of female in general, because of a teneral specimen.

Body almost glabrous, about 1.9 times as long as wide.

Head almost impunctate; eyes round in dorsal view, about 0.60 times as long as head in lateral view, deeply curved inward near antennal pits in frontal view; frons almost flat, about 0.27 times as wide as head at its narrowest part in frontal view; antennae about 2.0 times as long as cephalic width; all segments longer than wide; 7th segment about 1.3 times as long as and about 1.9 times as wide as 6th; 11th segment oval (Fig. 8).

Pronotum about 1.4 times as wide as long, about 0.93 times as wide as and about 0.69 times as long as elytra (Fig. 1), sharply curved and narrowing apically at sides, widest at base, strongly sinuate in the middle of posterior margin, feebly pointed posteriorly at latero-basal angles, without microsculptures and discal punctures; basal row of coarse punctures deeply impressed, but unclear at the middle.

Elytra widest at about basal two-seventh of lateral margins (Fig. 1), almost as wide as long, moderately round at sides, without microsculptures; discal punctures of elytra sparse, and minutely or strongly impressed; each basal transverse stria with about 9-12 minutely impressed punctures; each adustural stria with about 15 punctures smaller than those of basal stria.

Propygidum impunctate and glabrous; pygidium impunctate, and with about 1-2 very fine hairs.

Undersurface smooth in general; metasternum in male with dense and decumbent hairs, in female almost glabrous.

All femora slender; in male fore femora 0.9 mm, middle and hind femora 1.2 mm in length; in female fore femora 0.8 mm, middle and hind femora 1.1 mm in length; all tibiae almost straight; in male fore tibiae 0.9 mm, middle tibiae 1.5 mm, hind tibiae 1.6 mm in length; in female fore tibiae 0.8 mm, middle and hind tibiae 1.2 mm; hind tibiae in both sexes without a longitudinal groove.

Male. Male genitalia (Figs. 11-13) about 0.93 mm in length, oval in general; the median lobe round basally, gradually narrowing from apical one-fourth to apex of lateral margins, triangular apically in ventral and dorsal views, sharply pointed apically in lateral view; parameres almost symmetric, sinuate in ventral and dorsal views, almost straight in lateral view; inner sac simple, with 5 sclerites (Fig. 17).

Body length. 3.5 mm.

Distribution. Japan: Ryukyus (Okinawa Is.).


Remarks. The present new species is the third species of the genus Scaphidium in Okinawa Is., and related to Scaphidium reitteri Lewis, 1879, but the body length is 3.5 mm, dorsum is relatively weakly shining, parameres of the male genitalia are relatively thick (Figs. 11-13), inner sac is simple (Fig. 17), whereas in S. reitteri, the body length is 4.3-5.8 mm, dorsum is relatively strongly shining, parameres of the male genitalia are relatively slender (Figs. 14-16), and inner sac is complex (Fig. 18).

Moreover, Scaphidium sakura Hoshina sp. nov. is also similar to S. sauteri Miwa et Mitono, 1943, but the pygidium almost concolorous, yellowish brown to brown. In contrast, S. sauteri has the pygidium with a longitudinal black band.

Etymology. The specific epithet is derived from the elytral black patch which is distant from sutural black stripe and similar in shape to a petal of sakura, a Japanese popular flower.

Scaphidium kumejimaense Hoshina et Maruyama, 1999
(Japanese name: Kumejima-deokinokomushi)
(Figs. 2, 9, 19, 21-22)

Distribution. Japan: Ryukyus (Kumejima Is., Ishigaki Is., Iriomote Is.).

Type series. Holotype, male, Captured in a forest along Shirase River, Kumejima Is., Okinawa Pref., the Ryukyus, 14-16. iii. 1998, M. Maruyama leg. (preserved in the collection of Entomological Laboratory, Kyushu University); paratype, 1 female, same data as holotype.
Figs. 11-16: male genitalia. 11 & 14, ventral view; 12 & 15, dorsal view; 13 & 16, lateral view. 11-13, *Scaphidium sakura* Hoshina sp. nov.; 14-16, *S. reitteri* Lewis. Scale A: 0.5 mm for Figs. 11-13. Scale B: 1.0 mm for Figs. 14-16.
Figs. 17-18: inner sac of male genitalia, dorsal view. 17, Scaphidium sakura Hoshina sp. nov.; 18, S. reitteri Lewis. Figs. 19-20: metasternum. 19, S. kumejimaense Hoshina et Maruyama; 20, S. seriatum Heller. Scale A: 0.25 mm for Fig. 17 and 0.4 mm for Fig. 18. Scale B: 1.0 mm for Figs. 19-20.


Remarks. Scaphidium kumejimaense is recorded for the first time from Ishigaki Is. and Iriomote Is. in this paper. Dorsum coloration of specimens collected from these two Islands is reddish brown, and darker than that collected from Kumejima Is., type locality (dorsum coloration: brown).

S. kumejimaense is similar to Scaphidium seriatum Heller, 1917 in appearance, but is distinguished from the latter by having the male metasternum densely hairy and almost impunctate (Fig. 19) and the median lobe of the male genitalia which is triangular apically in ventral view (Fig. 21) and relatively weakly curved in lateral view (Fig. 22). In contrast, S. seriatum has the metasternum sparsely hairy and punctate (Fig. 20) and the median lobe of the male genitalia which is round apically in ventral view (Fig. 23) and sharply curved in lateral view (Fig. 24).

A key to species of the genus Scaphidium in the Ryukyus

1. Elytra immaculate, concolorous, black or reddish brown to brown .................................................. 2
   - Elytra maculate, yellowish brown with black patches ............................................................... 4
2. Dorsum black; pronotum with a reddish brown transverse band along anterior margin, prolonged posteriorly at

Figs. 21 & 23: median lobe of male genitalia, ventral view, 22 & 24, median lobe of male genitalia, lateral view. 21-22, Scaphidium kumejimaense Hoshina et Maruyama; 23-24, S. seriatum Heller. Scale: 0.5 mm for Figs. 21-24
sides and at the middle; distribution: Yoro Is. .............................................. Scaphidium morimotoi Löbl
3. Body 3.1-3.3 mm in length, about 1.8 times as long as wide; antennae with 11th segment longer than wide (Fig. 9); pronotum with almost no discal punctures (Fig. 2); the median lobe of the male genitalia triangular apically in ventral and dorsal views; parameres crooked in ventral and dorsal views; distribution: Kumejima Is., Ishigaki Is., Iriomote Is. ................................................................. S. kumejimaense Hoshina et Maruyama
- Body 4.5-4.7 mm in length, about 2.2 times as long as wide; antennae with 11th segment almost as long as wide (Fig. 10); pronotum with discal punctures strongly impressed (Fig. 3); the median lobe of the male genitalia feebly projected apically in ventral and dorsal views; parameres slightly sinuate in ventral and dorsal views; distribution: Okinawa Is. ................................................................. S. brunneum Hoshina et Morimoto
4. Pronotum sharply narrowing anteriorly at sides (Figs. 4-5) ........................................ 5
- Pronotum gradually narrowing anteriorly at sides (Figs. 6-7) ........................................ 6
5. Body 3.5 mm in length; dorsum relatively weakly shining; parameres of the male genitalia relatively thick (Figs. 11-13), and inner sac simple (Fig. 17); distribution: Okinawa Is. ......................... S. sakura Hoshina sp. nov.
- Body 4.3-5.8 mm in length; dorsum relatively strongly shining; parameres of the male genitalia relatively slender (Figs. 14-16), and inner sac complex (Fig. 18); distribution: Honshu, Shikoku, Kyushu, Tsushima Is., Amami Is. ...
........................................................................................................................................ S. reinerti Lewis
6. Antennae slender, 7th segment about twice as long as wide, 11th segment 1.6 times as long as wide; dorsum with larger black patches, median black band on elytra wider, confluent with sutural stripe; distribution: Amami Is. ...
........................................................................................................................................ S. amamiense Hoshina et Morimoto
- Antennae less slenderer, 7th segment about 1.5 times as long as wide, 11th segment 1.4 times as long as wide; dorsum with smaller black patches, median black patches distant from sutural stripe on elytra; distribution: Okinawa Is. .................................................................................................................. S. okinawaense Hoshina et Morimoto

References