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Notes on the Genus *Scaphidium* OLIVIER of China with Description of a New Species (Coleoptera: Staphylinidae: Scaphidiinae)

Wen-Jia HE, Liang TANG and Li-Zhen LI*

Department of Biology, Shanghai Normal University, Shanghai
100 Guilin Road, Shanghai, 200234 P. R. China

Abstract A new species of the genus *Scaphidium* collected from Zhejiang Prov. and An'hui Prov. is described under the name of *Scaphidium biwenxuani* sp. nov. and its diagnostic characters are illustrated. *Scaphidium comes* (recorded from Zhejiang Prov.) and *S. grande* (recorded from Yunnan Prov., Fujian Prov. and Guangdong Prov.) are recorded from the mainland of China for the first time.

Key words Coleoptera, Staphylinidae, Scaphidiinae, *Scaphidium*, new species, new record, China.

The genus *Scaphidium* OLIVIER, 1790 is a large genus of subfamily Scaphidiinae (LATREILLE, 1807). Up to the present, at least 325 species of the genus have been known from the world (LÖBL, 1997; HOSHINA and MORIMOTO, 1999; FIERROS-LÓPEZ, 2005) and 35 from China.

In general face, *Scaphidium* as well as other genera of Scaphidiinae are quite easy to be distinguished from rest genera of Staphylinidae by the box-like and highly convex body form, with the elytra covering the abdomen, but not the flexible staphylinoid body form. To compare with the relative genera of Scaphidiinae, this genus can be distinguished by the combination of following characters: robust species; head retracted under pronotum; eye notched; segments of antennal club symmetrical; scutellum large and visible; procoxal cavities closed posteriorly; base of elytron impressed to receive extended basal angle of pronotum; centre of metasternum pubescent in male; mesosternal keel bifid basally.

Recently, we examined a lot of specimens belonging to the genus *Scaphidium* in our collections. And among them, one new species, which is described here, and two new records from P. R. China are recognized. Since the *Scaphidium* species of P. R. China have been well revised by I. LÖBL in his excellent work at 1999, we insert these three species to his key (marked as #) for facilitating the identification.

All the type specimens are deposited in SHNU (Department of Biology, Shanghai Normal University). Other materials treated in this study were deposited in SHNU and SEM (Shanghai Entomology Museum, the Chinese Academy of Science).

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*Corresponding author: lizhenli@shnu.edu.cn

Scaphidium biwenxuani sp. nov

(Figs. 1, 4–8)

Holotype: ♂, Longwangshan, Anji County, Zhejiang Prov., alt. 950–1,200 m, 25. IV. 2006, BI Wen-Xuan and TANG Liang leg.

Paratypes: 5♂♂, 2♀♀, same data as for the holotype; 1♂, 1♀, Mt. Tianmu, Lin'an City, Zhejiang Prov., alt. 1,100 m, 24. VIII. 2006, BI Wen-Xuan and TANG Liang leg.; 4♀♀, Guniujiang, An'hui Prov., alt. 950–1,050 m, 28. IV. 2005, HU Jia-Yao and TANG Liang leg.; 1♂, Mt. Tianmu, Lin'an City, Zhejiang Prov., 18. V. 2007, WU Yong-Xiang leg.; 1 ex., Mt. Tianmu, Lin'an City, Zhejiang Prov., alt. 100 m, 15. VIII. 2007, HUANG Hao leg.; 1ex., Mt. Tianmu, Lin'an City, Zhejiang Prov., 2. VIII. 2007, SONG Xiao-Bin leg.

Description: Coloration. Male and female: head dark reddish brown. Antennae (Fig. 4) segments I–VI dark brown, antennae VII–X black, XI slightly lighter than the former four segments. Pronotum with two longitudinal black fasciae, while the remaining surface of the pronotum reddish brown. Each elytron with two round, black basal spots: one humeral spot and one spot near the suture, and with one "∞"-shaped median fascia and one apical fascia while the remaining surface of the elytron yellowish brown. Exposed abdominal tergites reddish brown. Prohypomera black mostly with yellowish brown laterally. Prosternum, mesosternum and metasternum black. Abdominal sternite I black to dark reddish brown apicaridly, and the remaining sternites reddish brown. Femora and tibiae very dark brown, tarsi light brown.

Frons and vertex finely and sparsely punctate, frons at narrowest point between eyes 0.18 mm (holotype).

Pronotum not raised above elytra, weakly inflexed anteriorly, with lateral edges slightly sinuate; discal punctation almost evenly fine and sparse, similar to that on frons, consisting of shallow punctures; antebasal puncture row impressed, not interrupted at middle.

Elytra weakly convex, humeral area slightly raised; discal impression absent, disc slightly impressed apically, adsutural area flat and impressed; discal punctation very fine and sparse on large inner portion, much sparser than pronotal punctation, obsolete on lateral area; each elytron with 3 discal puncture rows, which are almost equal in length; sutural stria puncture row relatively fine, basal stria row deeply impressed, with punctures much coarser than those forming pronotal antebasal row.

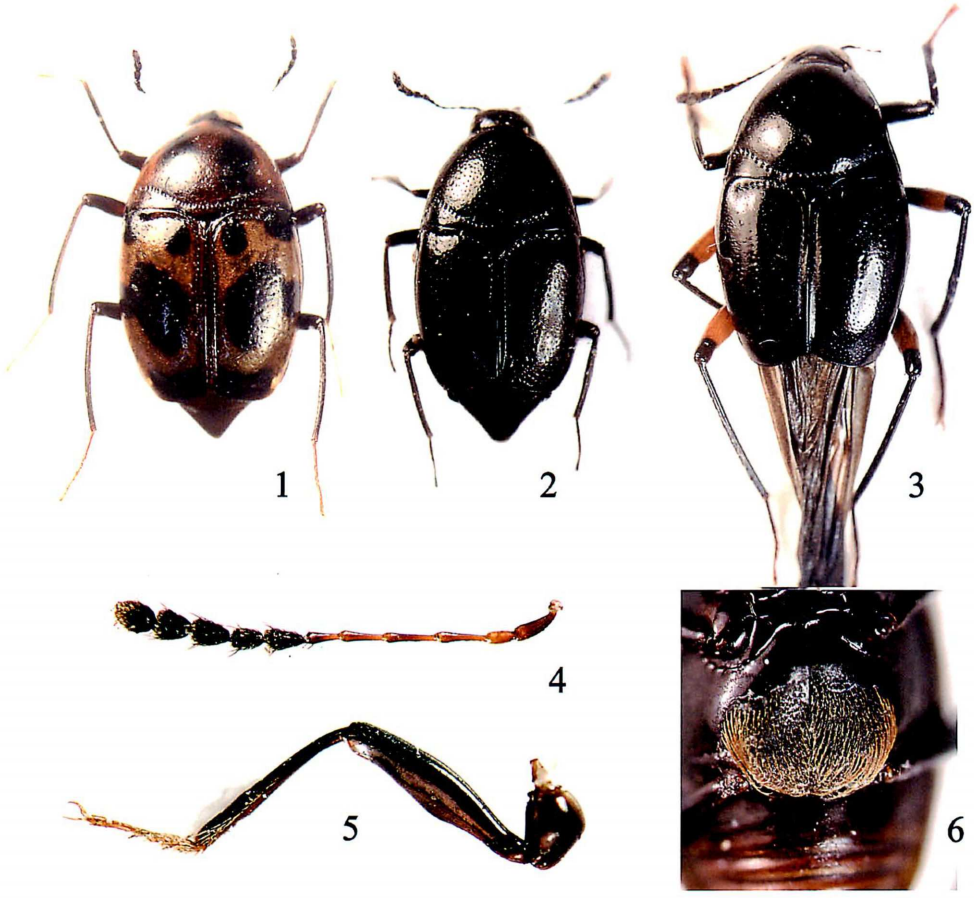
Prohypomera even, without microsculputre, black in most inner portion, brown lateral edges.

Mesepisterna very finely punctate.

Exposed abdominal tergites very finely punctate and with microsculpture consisting of punctures. Centre of sternite I with microsculpture consisting sparse punctures, lateral portions without mesh-like microsculpture.

Legs (Fig. 5) long, mesotibiae and metatibiae curved.

Aedeagus and male sexual characters: Metasternum (Fig. 6) impressed in middle, with short lodged pubescence, and two long lateral setal tufts. Profemora with ventral side cornuted on basal third portion with ridge. Protibiae even, hardly sinuate. Aedeagus (Fig. 7) 1.46–1.47 mm long. Median lobe subparallel posterior basal bulb, with tip angular and inflexed. Parameres slightly sinuate, almost evenly wide. Internal sac (Fig. 8) with apical complex of sclerites: one apical insert, one transverse X-like complex, two large comma-like sclerites and one transverse



Figs. 1–6. *Scaphidium* spp. — 1–3, Habitus; 4, antenna; 5, male front leg in ventral view; 6, male metasternum; 1, 4–6, *S. biwenxuani* sp. nov.; 2, *S. comes*; 3, *S. grande*.

membrane, three couples of clubs.

Length: 5.0–5.5 mm.

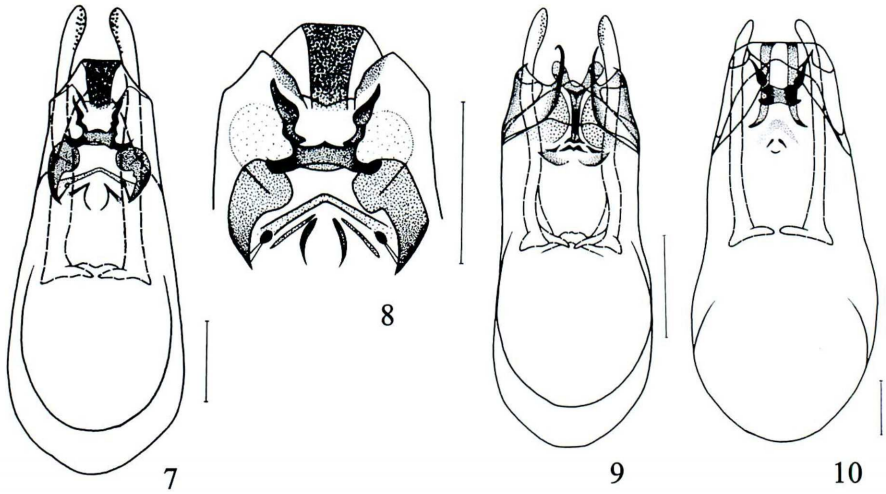
Distribution: China (Zhejiang, An'hui).

Remarks: This species is similar to *S. takahashii* MIWA et MITONO (China, Taiwan), from which it differs by the following points: 1. pronotum without spots on lateral portion, while in *S. takahashii* it bears two spots on lateral portion of pronotum; 2. elytra with apical fascia while in *S. takahashii* with subapical fascia.

In the key of LÖBL 1999, this species should be placed at # 10 and can be distinguished from *S. formosanum* by spots pattern on elytra: each elytron with two basal spots, one "∞"-shaped fascia on median portion and one apical fascia while in *S. formosanum* it with one humeral spot, three separated spots on median portion and one apical fascia.

Fascia variation is widely occurred in the genus *Scaphidium*, but it is undiscovered in *S. biwenxuani* sp. nov. presently.

Ecology. The specimens of this species are mainly captured under the bark of decayed



Figs. 7–10. *Scaphidium* spp. — 7, 9, 10, Aedeagus in dorsal view; 8, internal sac in detail; 7–8, *S. biwenxuani* sp. nov.; 9, *S. comes*; 10, *S. grande*. Scales = 0.25 mm.

wood.

Etymology. This species is named in honor of Mr. Bi Wen-Xuan, who collected some specimens used in this study and helped us a lot in field work.

Scaphidium comes Löbl, 1968

(Figs. 2, 9)

Materials examined. 1♂, 5♀♀, Tianmushan N. R., Anji County, Zhejiang Prov., alt. 350 m, 1. V. 2006, Wu Yong-Xiang leg.

Distribution. North Korea; China (Zhejiang).

Remarks. This species was originally described from Korea and was newly recorded from China. In the key of Löbl (1999), this species should be placed at # 3 and can be distinguished from *S. fukiense* from following points: 1, *S. comes* with tarsi and I-VI antennal segments brownish while in *S. fukiense* body, antennae and legs (including tarsi) entirely black; 2, head, pronotum and elytra with punctation dense and close while in *S. fukiense* bears one discal row of coarse punctures; remaining discal punctation obsolete; pronotal punctaion very fine; 3, pro-hypomera uneven, with microsculpture consisting of coarse and dense punctures while in *S. fukiense* smooth and without impressions; 4, sternite I with microsulpture consisting of obvious punctures on the most large median potion and even coarser and denser on the outboard portion while in *S. fukiense* sternite I extremely finely punctate, without microsculpture.

Scaphidium grande GESTRO, 1880

(Figs. 3, 10)

Materials examined. 1♂, Manfei, Nabanhe, Yunnan Prov., alt. 630 m, 29. VII. 2005, LI Li-Zhen and LI Jin-Wen leg.; 1♂, Jinghong, Yunnan, 11. VI. 1975, JIN Gen-Tao leg. (No. 24038143, SEM); 1♂, Xiyang, Yong'an, Fujian Prov., 19. IV. 1962, JIN Gen-Tao leg. (No. 24110832, SEM); 1♂, Waterfall group, Nanling N. R., Guangdong Prov., VII. 2006, WANG Zi-Chen leg.; 1♀, Mt. Wuyi, Fujian Prov., 27~31. V. 2002, LI Li-Zhen leg.; 1♀, Beifeng, Fuzhou city, Fujian Prov., V. 2004, LI Min leg.

Distribution. China (Taiwan, Yunnan, Guangdong, Fujian); India (Sikkim, Darjeeling District); Nepal.

Remarks. This species is newly recorded from China mainland, which was original described from China (Taiwan), India (Sikkim, Darjeeling District) and Nepal. As mentioned in LÖBL (1992) page 489, "This is a rather variable species, especially in size and elytral punctation." In this study, the length of examed specimens: 5.8–7.8 mm. In the key of LÖBL (1999), this species should be placed at #3, which can be easily distinguished from *S. fukiense* by wide reddish fascia on meso- and metafemora while body and the other portion of legs uniquely black.

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要　　約

何　文佳，湯　亮，李　利珍：中国産 *Scaphidium* デオキノコムシ属覚え書き．――浙江省及び安徽省から新種 *Scaphidium biwenxuani* を記載し，さらに中国本土から，*S. comes* LÖBL（浙江省），*S. grande* GESTRO（雲南省，広東省，福建省）を新たに記録した．

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