

Description of a New Species of the Genus *Scaphisoma* Leach (Coleoptera: Staphylinidae: Scaphidiinae) in Korea

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INTRODUCTION

Scaphisoma Leach is composed of 770 species worldwide. In East Asia, 178 species, 31 species and eight species are described in China, Japan and Russian Far East, respectively. In Korea six species have been recorded. Members of *Scaphisoma* are usually found in fungus, but some species found in leaf litters and under bark (Catalogue of Life, October 19, 2022). *Scaphisoma* is characterized by following features: body oval and convex; antennomere flattened from 6 or 7 to 11, antennomere 3 very shorter and smaller than 4; metacoxal sutural area of abdominal sternite III widened (Leschen & Löbl 2005).

In this study, two new species [*Scaphisoma koreanum* sp. nov. and *Scaphisoma rubromaculatum* sp. nov.] are described with illustrations of habitus, antenna, and aedeagus.

RESULTS

A checklist of genus *Scaphisoma* Leach in Korea

Genus *Scaphisoma* Leach, 1815

Scaphisoma hapiroense Lobl, 1968

Scaphisoma haemorrhoidale Reitter 1877

Scaphisoma koreanum Kim and Ahn sp. nov

Scaphisoma portevinii Pic. 1920

Scaphisoma rubromaculatum Kim and Ahn sp. nov

Scaphisoma rufum Achard, 1923

Scaphisoma subalpinum Reitter, 1881

Scaphisoma unicolor Achard, 1923

Scaphisoma koreanum Kim and Ahn sp. nov [Figs. 1-3]

Type series : Holotype, ♂, KOREA, Jeju Prov., Seogupo-city, Hawon-dong, Seogupo Natural Recreation Forest, N33°18'32.7"E126°27'59.0" 670m, 30 V 2007, K.-J. Ahn, D.-H. Lee, ex fungus on log. Paratype, 1 ex., same data as holotype. 2 exx., KOREA, Jeju Prov., Seogupo-city, Hawon-dong, Seogupo Natural Recreation Forest, N33°18'32.7"E126°27'56.04", 730m, 30 V 2007 K.-J. Ahn, D.-H. Lee, ex fungus on log; 2 exx., N33°18'36"E126°28'9.2" 665m, 31 V 2007, D.-H. Lee, T.-K. Kim, ex under bark; 1 ex., Mt. Hallasan, Dongsuak, 29 V 2003, Y.-B. Cho, ex sifting. Holotype and Paratypes are deposited in the CNUIC.

Description. Body length 1.9-2.1 mm, width 1.3 mm. Head yellowish brown, antennomere yellowish brown, pronotum yellowish brown, elytra yellowish brown with reddish brown in sutural area and basal, pygidium yellowish brown, mesoventrite, metaventricle and abdominal sternite reddish brown, leg yellowish brown with tarsi yellow. Measurement of holotype: body 2 mm in length, head 0.6 mm in length (from anterior margin of labrum to the base) and 0.42 mm in width; pronotum 0.8 mm in length and 1.1 mm in width, elytra 1.3 mm in length and 0.44 mm in width. Head punctate fine and dense; relative ratio of antennomere 3 to 11, 4: 9: 12: 12: 13: 11: 14: 12: 13; antennomere 7-11 expended; antennomere 4 long, more than twice of 3; antennomere 6 as long as 7 or 8. Pronotum puncture fine and dense, width about 1.5 times as long as length, widest at near posterior margin; scutellum small and covered with protruding parts of pronotum, invisible in dorsal view. Elytra distinct and dense punctate, widest at basal 1/4; sutural line rather shallow, very slightly curved outward in basal end. Pygidium puncture fine and dense. Hypomeron smooth, without puncture or setae. Mesoventrite smooth, with sparse and fine puncture. Metaventricle punctate as mesoventrite. First Abdominal sternite with fine and dense puncture. Legs slender as other *Scaphisoma*, a row of ctenidium in profemur, fine setae in tarsomere.

Male. Protarsi setae more abundant than female. Aedeagus 1.16 mm in length (from the base of median lobe to apex of paramere) and width 0.5 mm in dorsal view, basal bulb wide and oval in dorsal view; median lobe short, as long as half of paramere, paramere wide and long, middle of paramere expanded toward ventral side; slightly expanded toward opposite direction near apex, inner sac asymmetric, split in basal.

Distribution. Korea (Jeju)

Scaphisoma rubromaculatum Kim and Ahn sp. nov [Figs. 4-6]

Type series : Holotype, ♂, KOREA, Gangwon Prov., Pyeongchang-gun, Cheongdong-ri, Mt. Sambansan, FIT in Pinus forest, 13 VII- 15 VIII 2001, K.-J. Ahn, S.-J. Park, C.-W. Shin; 4 exx., same data as holotype; 2 exx., Chungbuk Prov., Danyang-eup, Cheongdong-ri, Mt. Soback, wet leaf litter, N36° 57'35.73"E128° 26'44.29" 470m, 9 VI 2021, J.-Y. Park, Y.-J. Kim, G.-N. Jeon.

Description. Body length 1.6-1.7 mm, width 0.9-1 mm. Head dark reddish brown; antennomere yellowish brown; pronotum dark reddish brown; elytra dark yellowish brown, yellowish brown spot near basal humeral apical, yellowish brown line in apical 1/3 of elytral length, darkened along to apical margin; pygidium dark reddish brown; mesoventrite, metaventricle and dark yellowish brown, abdominal sternite dark yellowish brown, brighten up to apical in each sternite, leg reddish brown with tarsi yellowish brown. Measurement of holotype: body 1.7 mm in length; head 0.4 mm in length (from anterior margin of labrum to the base) and 0.6 mm in width; pronotum 0.7 mm in length and 0.8 mm in width; elytra 1 mm in length and 0.45 mm in width. Head punctate fine and dense; relative ratio of antennomere 3 to 11; 4: 6: 10: 13: 13: 13: 14: 13: 14, antennomere 7-11 expended; Pronotum width about 1.4 times as long as length, widest at near posterior margin; puncture fine and dense. Scutellum small and not observed in dorsal view.

Elytra widest at basal 1/4; narrowest in apical margin, 1.8 time as narrow as widest, puncture fine and dense, slightly distinct than pronotum puncture; sutural line distinct, gradually narrow near apical margin. Pygidium puncture very fine and sparse. Hypomeron without puncture or setae. Mesoventrite smooth, with fine and dense puncture. Metaventricle punctate as mesoventrite. Abdominal sternite with fine puncture. Legs slender, a row of ctenidium in profemur, fine setae in tarsomere.

Male. Setae in protarsi abundant than female. Aedeagus 0.46 mm in length (from the base of median lobe to apex of paramere) and width 0.5 mm in dorsal view, basal bulb oval and symmetric, median lobe wide, gradually curved toward ventral side in lateral view; paramere expand toward dorsal of aedeagus in near apex of paramere; Internal sac straight, turn toward to apical near basal end of bulb.

Distribution. Korea (Chungbuk, Gangwon)



Figures 1-4. *Scaphisoma koreanum* Kim and Ahn. 1 Habitus dorsal view (left), lateral view (right), 2 mm; 2 Antennomere 3- 11. Scale bar = 0.1 mm; 3 Aedeagus dorsal view (left), lateral view (right). Scale bar = 0.1 mm.

Figures 5-8. *Scaphisoma rubromaculatum* Kim and Ahn. 4 Habitus dorsal view (left), lateral view (right), 1.65 mm; 5 Antennae 3- 11. Scale bar = 0.1 mm; 6 Aedeagus dorsal view (left), lateral view (right) Scale bar = 0.1 mm.

REFERENCES

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