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Two new species of *Stenichnus* Thomson from China (Coleoptera, Scydmaenidae)

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Abstract. Two new Chinese species of *Stenichnus* Thomson (Coleoptera, Scydmaenidae) are described: *St.* (s. str.) *montanus* n. sp., and *St.* (s. str.) *dabanus* n. sp. This is the first record of the occurrence of *Stenichnus* in China; the type material has been collected in Yunnan and on the border between Shaanxi and Sichuan. Diagnostic characters, including the aedeagi, are illustrated and discussed.

Key words: entomology, taxonomy, Coleoptera, Scydmaenidae, Cyrtoscydmini, *Stenichnus*, new species, East Palearctic, China.

INTRODUCTION

The genus *Stenichnus* Thomson comprises nearly two hundred species distributed worldwide, except for South Africa and some parts of South America (Newton & Franz 1998). In Eurasia the majority of species inhabit the West Palearctis; in Europe members of this genus are common and relatively abundant in leaf litter of deciduous forests. However, only a few members of *Stenichnus* are known to occur in south-eastern and eastern parts of Asia, where they seem to be rather uncommon. Four species are known from Taiwan (Franz 1985; Jałoszyński 2004), five from Japan (Sharp 1886; Jałoszyński 2004, 2006), and four from the Russian Far East (Kurbatov 1993). In this paper the first record of the occurrence of *Stenichnus* in the mainland part of China is given, and two new species are described.

The type material is deposited in private collections of Michael Schülke, Berlin, Germany (PCMS), and the author, Poznań, Poland (PCPJ).

TAXONOMY

Stenichnus (s. str.) *montanus* n. sp.

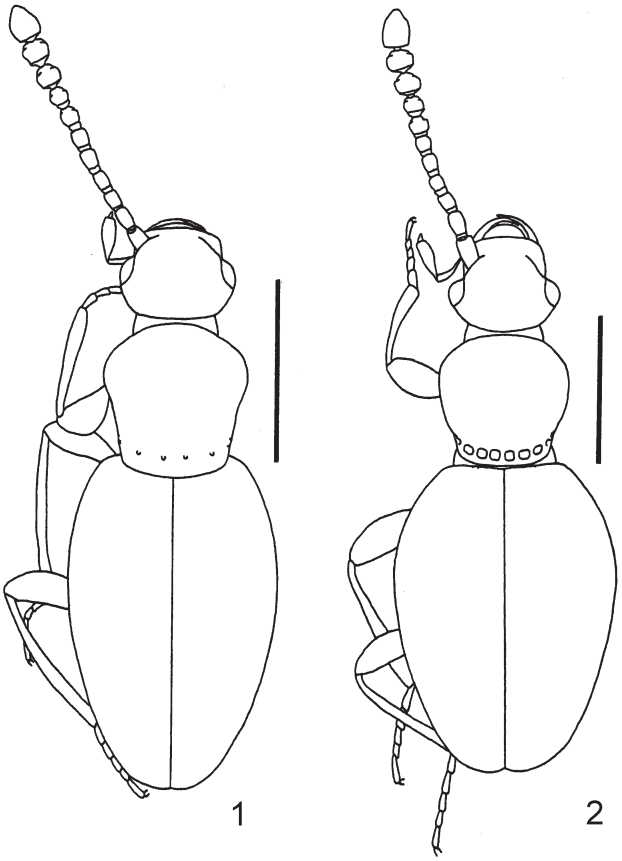
(Figs. 1, 3, 4, 8, 10)

NAME DERIVATION

The name refers to a high mountain range, where this species was collected.

DIAGNOSIS

Set of the following characters can be used to identify males of this species: body elongate and slender, punctation of head and pronotum very fine, punctation of elytra very distinct; aedeagus with short parameres, in dorsal view subapical area of median lobe with subtrapezoidal median projection surrounded at each side by large subtriangular "wings", internal sac very simple, without any discernible sclerites. Females and their diagnostic characters remain unknown.



1-2. Body outline of males. 1 – *Stenichnus montanus* JAŁOSZYŃSKI; 2 – *Stenichnus dabanus* JAŁOSZYŃSKI (scale bars: 0.5 mm)

Description

Male (Figs. 1, 8). Body small, slender, moderately convex, shiny, moderately dark brown, covered with yellowish to brown vestiture; body length 1.57 mm. Head broadest at moderately large and moderately convex eyes, length 0.25 mm, width 0.32 mm; tempora about as long as eye in dorsal view, bent at obtuse angle and rounded; vertex and frons regularly, uniformly convex; supraantennal tubercles weakly marked. Punctation very sparse, composed of fine and unevenly distributed punctures; setation sparse, short and suberect. Antenna as in Fig. 1, length 0.72 mm.

Pronotum distinctly elongate, broadest near anterior third, length 0.42 mm, maximum width 0.37 mm, width at base 0.30 mm; posterior collar separated from disc by dorsal row of four very small and shallow pits, and additional, less distinct pit at each side. Disc with very fine and sparse punctation; setation distinctly longer and slightly denser than that on frons and vertex, composed of moderately long, suberect to erect setae.

Elytra long and slender, broadest distinctly anterior to middle, length 0.90 mm, width 0.62 mm, elytral index 1.44. Humeri not raised, basal pits or impressions barely noticeable, apices of elytra separately rounded. Punctation very distinct, in anterior half of elytra composed of large but shallow punctures with slightly diffused margins separated by spaces similar to puncture diameters, punctures are gradually smaller and shallower laterally and posteriorly; setation similar to that on pronotum but slightly lighter in color. Metathoracic wings well developed.

Legs moderately long and slender, profemora with strongly convex, rounded dorsal margin.

Aedeagus (Figs. 3, 4, 10) 0.22 mm in length, with broad parameres not reaching subtriangular, rounded apex of median lobe, each paramere bears 1-2 subapical setae; dorsal subapical region of median lobe bears subtrapezoidal median plate surrounded at each side by rounded, subtriangular structure; internal sac very simple, without any discernable sclerites, with unevenly distributed granules on its membranous walls.

Female. Unknown.

Type material

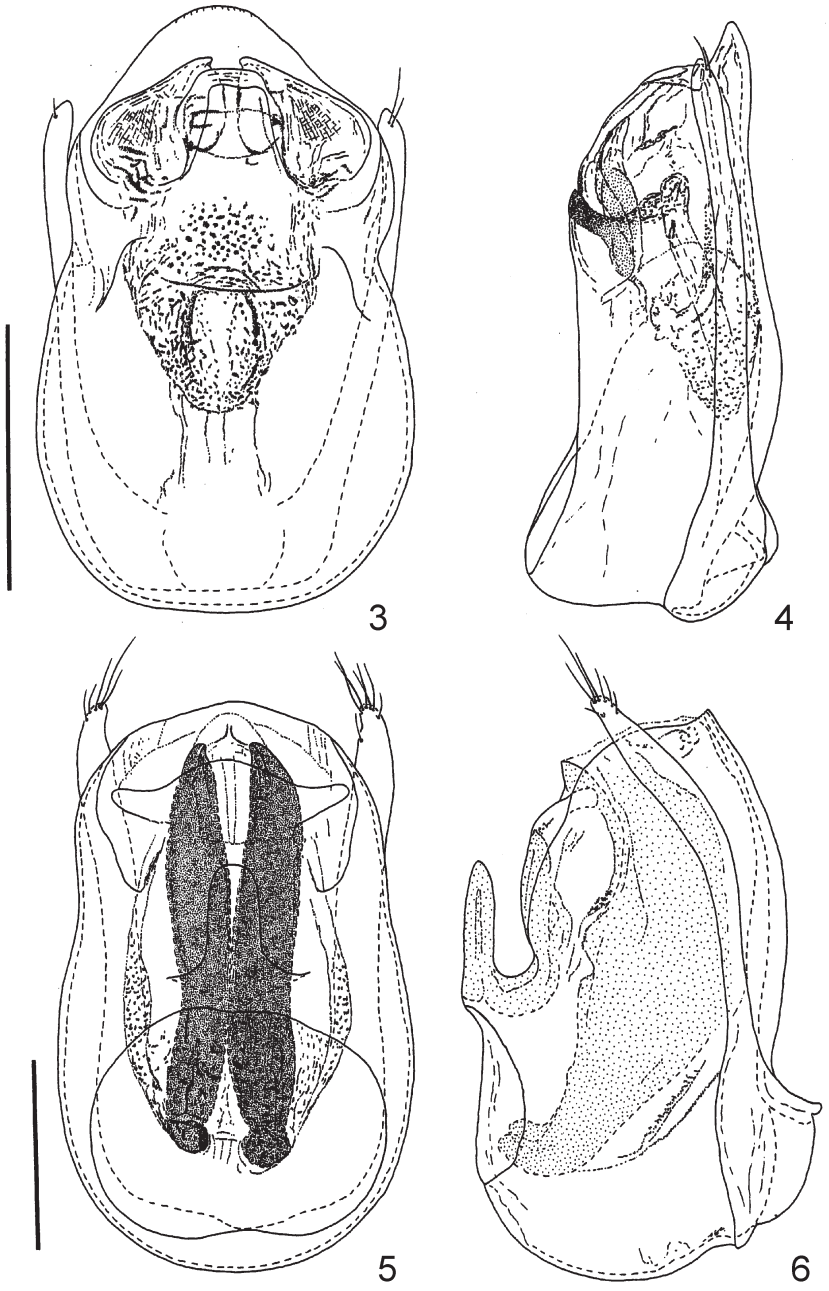
Holotype (male): white printed label "CHINA (N-Yunnan) Dali Bai Nat. Aut. Pref., Diancang Shan, 3 km W Dali old town, pine forest at "Cloud Road", right upper chair-lift station, 25°41.1'N, 100°06.8'E, 2650-2750m (needle/leaf litter), 1. IX. 2003, Wrase [19C]" (PCMS).

Distribution

China, Yunnan Prov.

Remarks

The aedeagus of this species is most similar to that of *St. willmanni* Franz known from a single male found in Morocco. The holotype of *Stenichnus willmanni* (Fig. 9) clearly differs from *St. montanus* in the general body shape. The African species is sto-



3-6. Aedeagi in dorsal (3, 5) and lateral (4, 6) views. 3, 4 – *Stenichnus montanus* JAŁOSZYŃSKI; 5, 6 – *Stenichnus dabanus* JAŁOSZYŃSKI (scale bars: 0.1 mm)

uter, much more convex, with much broader elytra; its pronotum is only slightly longer than broad, and it bears several irregular, indistinctly delimited punctures distributed unevenly along the posterior margin (ante-basal pits in *St. montanus* are more distinct and regularly distributed). Moreover, *St. willmanni* is light brown. The aedeagus of *St. willmanni* (Fig. 11) is indeed very similar to that of *St. montanus*, but it is smaller and more slender, with narrow basal part. The most similar character shared by these two, otherwise clearly different species, is the modification of the profemur in males. Besides the differences in morphology, *St. montanus* occurs in high mountains in the southern part of China, whereas *St. willmanni* is known exclusively from the Atlas Mts. in North Africa (Franz 1961).

***Stenichnus* (s. str.) *dabanus* n. sp.**

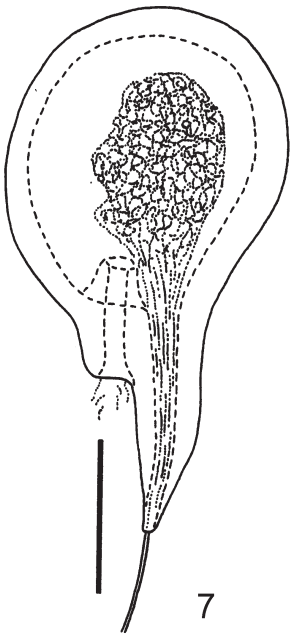
(Figs. 2, 5, 6, 7)

Name derivation

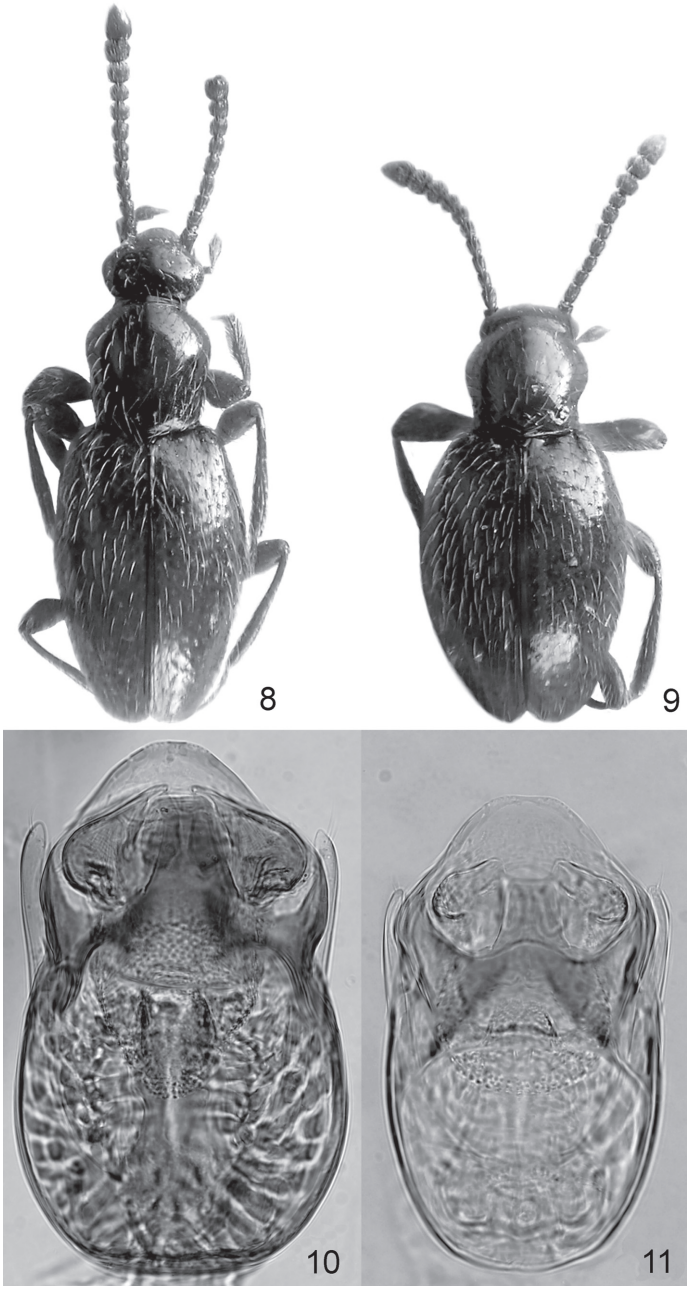
Locotypical, referring to the mountains of Daba Shan, which is the type locality of this species.

Diagnosis

This species is relatively unremarkable and identification must be based on examination of the aedeagus, which bears short projection on its dorsal wall and pair of very large and long, darkly sclerotized structures in its internal sac; external characters such



7. Spermatheca of *Stenichnus dabanus* Jałoszyński (scale bar: 0.05 mm)



8-11. Holotypes of *Stenichnus montanus* Jałoszyński (8, 10), and *Stenichnus willmannii* Franz (9, 11) . 8, 9 – dorsal aspect of male (to the same scale); 10, 11 – aedeagus in dorsal view (to the same scale)

as distinctly marked humeri and very broad elytra can be used only for preliminary determination. Females can be identified by direct comparison to males, preferably when collected together.

Description

Male (Fig. 2). Body moderately large, with slender pronotum contrasting with very broad elytra, relatively strongly convex, reddish-brown, covered with brown vestiture; body length 1.70 mm. Head moderately large, broadest at large and strongly convex eyes, length 0.30 mm, width 0.35 mm; tempora about as long as eye in dorsal view, weakly bent and rounded; vertex and frons convex; supraantennal tubercles weakly marked. Punctation very sparse, composed of fine and unevenly distributed punctures which are slightly more distinct on lateral parts of vertex; setation sparse, moderately long and suberect. Antenna as in Fig. 2, length 0.82 mm.

Pronotum as long as broad, broadest near anterior third, length 0.45 mm, maximum width 0.45 mm, width at base 0.35 mm; very short posterior collar is separated from disc by indistinct lateral constriction and dorsal row of six large and deep pits, with additional, smaller and less distinct pit at each side. Disc with very fine and sparse punctation; setation distinctly longer and slightly denser than that on frons and vertex, composed of moderately long, erect setae.

Elytra very broad and convex, broadest distinctly anterior to middle, length 0.95 mm, width 0.70 mm, elytral index 1.36. Base of elytra is much broader than base of pronotum, so that humeri are distinctly marked, basal pits very small, basal impressions very short and shallow, apices of elytra separately rounded. Punctation distinct, in anterior half of elytra composed of relatively small and shallow but well marked punctures separated by spaces slightly longer than puncture diameters, punctures are gradually smaller and shallower laterally and posteriorly; setation longer and much more erect than that on pronotum but similarly dense. Metathoracic wings reduced, only as long as elytra.

Legs moderately long and slender, profemora with moderately convex, rounded dorsal margin.

Aedeagus (Figs. 5, 6) 0.30 mm in length, elongate, with broad parameres slightly exceeding rounded apex of median lobe, each paramere bears 5-7 apical and subapical setae of variable lengths; median lobe with T-shaped supapical dorsal structure and well developed internal sac, in dorso-ventral view showing pair of very large, darkly sclerotized elongate structures adjacent in middle and divergent at both apices.

Female. Externally indistinguishable from male; body length 1.75 mm, length of head 0.30 mm, width of head 0.35 mm, length of antenna 0.87 mm, length of pronotum 0.45 mm, maximum width of pronotum 0.45 mm, width of pronotum at base 0.35 mm, length of elytra 1.00 mm, width of elytra 0.72 mm, elytral index 1.38.

Spermatheca (Fig. 7) 0.17 mm in length, elongate, drop-shaped, thick-walled.

Type material

Holotype (male): three white printed labels “CHINA: Border Shaanxi – Sichuan (Daba Shan), pass 20 km SSE Zhenping, 1700 – 1800 m, 31° 44’ N, 109° 35’ E, 9.

VII. 2001, leg. M. Schülke [C01-07]", "young dry mixed forest, field edge, small creek valley, moss (sifted) [C01-07]", and "Sammlung M. Schülke, Berlin" (PCMS). Paratype: female, same data as for holotype (PCPJ).

Distribution

China, border area between Shaanxi and Sichuan.

Remarks

The aedeagus of this species is most similar to that of *St. minipollens* Jałoszyński, known so far only from a single locality on Hokkaido, Japan (Jałoszyński 2004, figs. 6D-E). Both species have remarkable median projection of the dorsal wall (known also in some other species) and paired elongate structures in the internal sac. The aedeagus of *St. minipollens* clearly differs in having emarginate apex, much shorter internal structures and the shape of the dorsal projection, which is subtriangular, whereas in *St. dabanus* its apex is rounded and the projection has nearly parallel sides.

Acknowledgments

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