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Three new species of *Spermophagus* SCHOENHERR, 1833  
from India and Laos  
(*Coleoptera: Bruchidae: Amblycerinae*)

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ABSTRACT. *Spermophagus albovittatus* n. sp. from India, *S. bifidus* n. sp. and *S. truncatus* n. sp. from Laos are described.

Key words: entomology, taxonomy, zoogeography, new species, *Spermophagus*, *Amblycerinae*, *Bruchidae*, India, Laos.

Abbreviations used in the text:

CKWA: Collection of author (Emmendingen, Germany)

NHMB: Naturhistorisches Museum (Basel, Switzerland)

***Spermophagus albovittatus* n. sp.**

(figs. 1-3)

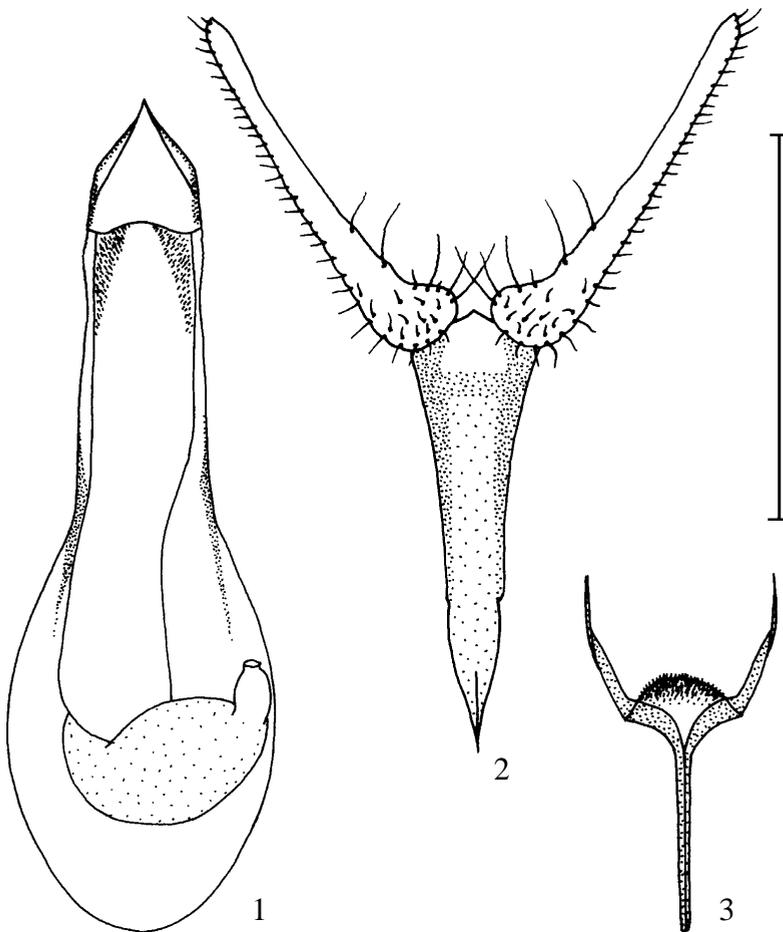
ETYMOLOGY

The name refers to the transverse, greyish-whitish pattern of elytra.

DIAGNOSIS

It is a member of the *S. niger* group and closely related to *S. punjabensis* BOROWIEC, 1991. Externally very similar, *S. punjabensis* differs in the antenna with segments 6-10 distinctly elongate, pronotum with apical margin wider and

lateral sides less convex, ventral valve of median lobe longer, and the lateral lobes distinctly shorter, with different setation (see figs. 170-171 in BOROWIEC 1991 - fig. 171 shows lateral lobes rolled; indeed apical four fifth of lateral lobes are wider when they are pressed on microscopic slide). *S. dongdokiensis* BOROWIEC, 1991, also very similar, but only concerning the male genitalia, has the ventral valve distinctly longer, with its tip more acute, internal sac basally with about 20 denticle-like sclerites, and the lateral lobes strongly separated at base, with their tips acute (see figs. 168-169 in BOROWIEC 1991 - basally the internal sac of *S. dongdokiensis* has distinct, denticle-like sclerites which are not shown in fig. 168).



1-3. *Spermophagus albovittatus* n. sp.: 1 - median lobe; 2 - lateral lobes; 3 - spiculum gastrale.  
Scale bar = 0.5 mm

## DESCRIPTION

Length (pronotum-elytra): 2.1-2.1 mm, width: 1.7 mm. Body short, oval.

Black; hind tibial spines dark red, claws reddish except darkened basal tooth.

Vestiture moderately dense, not covering body surface completely; ventrally greyish; pronotum dorsally with predominantly greyish pattern, elytra predominantly dark brownish to blackish with greyish-whitish pattern forming two transverse bands, each in front of middle and at end of apical two thirds; apical fourth of elytra without pattern; scutellum and pygidium greyish-whitish; pygidial base with denser setation.

Head short. Eyes emarginate to two thirds of their length, with 5 rows of facets beyond incision of antenna. Tempora moderately long. Distance between eyes less than half of greatest width of eye. Frons and vertex convex, with elongate, smooth, shiny interocular protuberance. Antennae extending to mid third of elytral length, segment 3-4 distinctly shorter than 1.

Pronotum about 1.5 times wider than long, double punctate, coarse punctures sparser at middle of disc. Lateral margin in lateral view weakly and evenly convex. Scutellum small, triangular.

Elytra about 1.9 times longer than pronotum, as long as their combined width, with maximum width at end of basal third. Humeral calli distinct. Elytral striae distinctly punctate, intervals with moderately dense micropuncturation and with distinct irregular row of large punctures.

Sternites without impression or tubercles. Hind legs without sexual characters. Hind tibia with dorsolateral carina indistinct and incomplete, lateral carina not serrate; apical spines sharp, of same length, as long as greatest width of tibia. Claws with distinct basal tooth.

Pygidium double punctate; coarse punctures flat.

Male: Antennal segments 8-10 about 1.4 times longer than wide, segment 11 about 1.9-2.0 times longer than wide; ventral margin of segments without erected setae. Abdomen simple, sternite V emarginate to two thirds, pygidium with maximum convexity at apical half. Median lobe of moderate length; ventral valve pentagonal; dorsal valve subtriangular; both of valves with apex acute. Internal sac with paired band of minute needle-like sclerites below apical orifice (fig. 1). Lateral lobes elongate, tape-like, with about 4 long setae and about 2 short setae at mesal margin, with about 30 setae at lateral margin (fig. 2). Basal plate subtriangular, with maximum width at apex. Basal strut oblong, with median carina. Spiculum gastrale Y-like (fig. 3)

Female: Unknown.

## HOST PLANT

Unknown.

## TYPES

Holotype, male: S India, Kerala, env. Lake Periyar, 900 m, 13.-20.V.1991, J. KOLIBÁČ (NHMB); holotype genitalia slide no. 301298II; paratype, male: same data as holotype (CKWA).

***Spermophagus bifidus* n. sp.**

(figs. 4-6)

## ETYMOLOGY

The name refers to the bifid ventral valve.

## DIAGNOSIS

It is unique species with no close relatives. Externally *S. bifidus* looks like species of the *S. niger* group which mainly differ in the internal sac without or with at most minute sclerites (see BOROWIEC 1991, ANTON 1999 a). The paired denticle-like sclerite of the internal sac of *S. bifidus* is similar to those of the *S. stemmleri* group. However, males of that group have the ventral margins of antennal segments provided with erected setae, and the lateral lobes are divided into ventral and dorsal lobes (ANTON 1999b). *S. bifidus* is the only species with the bifid ventral valve.

## DESCRIPTION

Length (pronotum-elytra): 1.9-2.0 mm, width: 1.5 mm. Body short, oval.

Black; hind tibial spines red, claws completely yellowish-red. Vestiture moderately dense, not covering body surface completely; ventrally pale brownish-yellow; dorsally predominantly dark brown, with pale brownish-yellow pattern, forming 3 irregular bands each at elytral base, end of apical third and end of apical two thirds of elytra; scutellum brownish-yellow; pygidium dark brown, with base, apex and pair of longitudinal bands at medial disc pale brownish-yellow.

Head short. Eyes emarginate to about half of their length, with 7-8 rows of facets beyond incision of antenna. Tempora moderately long. Distance between eyes less than half of greatest width of eye. Frons and vertex weakly convex, with smooth, elongate, shiny interocular protuberance. Antennae extending to middle of elytra; segment 3 distinctly shorter than 1, 4 about as long as 1.

Pronotum about 1.7 times wider than long, double punctate, coarse punctures sparser at middle of disc. Lateral margin in lateral view in basal part feebly and in apical part strongly convex. Scutellum small, triangular.

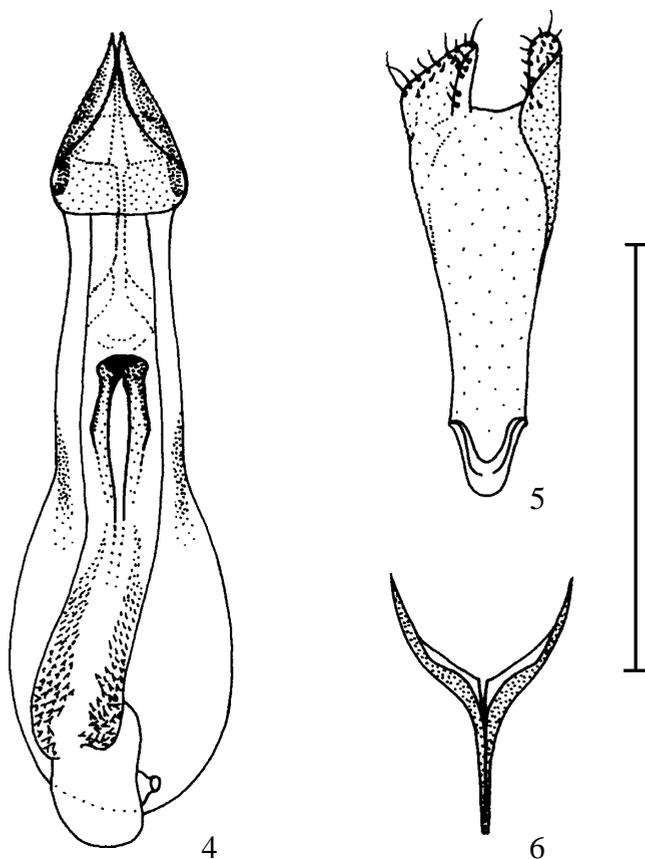
Elytra about twice longer than pronotum, about as long as their combined width, with maximum width at end of basal third. Humeral calli moderately distinct. Elytral striae distinctly punctate, intervals with moderately dense micropuncturation and with indistinct irregular row of large punctures.

Sternites without impression or tubercles. Hind legs without sexual characters. Hind tibia with distinct, nearly complete dorsolateral carina, lateral carina not serrate; apical spines sharp, shorter than or as long as greatest width of tibia, mesal spine about one fourth longer than lateral spine. Claws with distinct basal tooth.

Pygidium double punctate; coarse punctures flat.

Male: Antennal segments 8-10 about 1.3 times longer than wide, segment 11 about 2.5 times longer than wide; ventral margin of segments without erected setae. Abdomen simple, sternite V emarginate to two thirds; pygidium with maximum convexity at apical half. Median lobe oblong; ventral valve sub-pentagonal, bifid; dorsal valve subtriangular, both of valves with apex acute. Internal sac at mid part with pair of large, strongly elongate, denticle-like sclerites, followed by paired band of numerous, densely arranged, spine-like sclerites of moderate size (fig. 4). Lateral lobes short, rounded apically, with about 30 setae of varying length at combined margins; combined lateral part of lateral lobes and lateroapical part of basal plate folded towards ventral side (fig. 5). Basal plate triangular, with maximum width at apex. Basal strut broad, subcircular, without median carina. Spiculum gastrale Y-like (fig. 6)

Female: Unknown.



4-6. *Spermophagus bifidus* n. sp.: 4 - median lobe; 5 - lateral lobes; 6 - spiculum gastrale. Scale bar = 0.5 mm

## HOST PLANT

Unknown.

## TYPES

Holotype, male: S Laos, Champasak prov., Bolaven Plateau, route Pakse - Paksong (road no. 23), env. of Ban Itou (km 35), 15°10.4'N 106°05.8'E, 800 m, 10.-18.IV. 1999, E. JENDEK & O. ŠAUŠA (CKWA); holotype genitalia slide no. 241099II; paratypes, 2 males: same data as holotype (CKWA).

***Spermophagus truncatus* n. sp.**

(figs. 7-10)

## ETYMOLOGY

The name refers to the truncate process at apex of the ventral valve.

## DIAGNOSIS

It is closely related to *S. kannegieteri* BOROWIEC, 1991. Externally and with regard to the female ovipositor the latter is very similar, but it differs in its size which is often larger (1.9-3.7 mm), color of abdomen not varying, always completely black, and the elytra distinctly less converging towards their apex. The male genitalia of *S. kannegieteri* are similar with respect to the basal plate with a medioapically setose apex, however the lateral lobes, ventral valve of median lobe and the armature of the internal sac are different (see figs. 230, 244 in BOROWIEC 1991 - subbasally the internal sac of *S. kannegieteri* has a group of 6 larger, spine-like sclerites which are not shown in fig. 230).

## DESCRIPTION

Length (pronotum-elytra): 1.8-2.3 mm, width: 1.2-1.6 mm. Body of moderate length, oblong-oval.

Black, abdomen varying from completely black to completely reddish except extreme base of sternite I; hind tibial spines red, claws paler reddish and basally darkened. Vestiture moderately dense, not covering body surface completely; ventrally greyish to brownish-yellow; dorsally predominantly dark brown, pronotum and pygidium with varying greyish pattern, scutellum greyish, elytra with oblong, greyish spots at base of intervals 3, 5 and often 7 as well as at end of basal half of intervals 3, 7 and often 9.

Head short. Eyes emarginate to three fifths of their length, with 7-8 rows of facets beyond incision of antenna. Tempora moderately long. Distance between eyes less than half of greatest width of eye. Frons and vertex weakly convex, with smooth, elongate, shiny interocular protuberance. Antennae extending behind humeral calli; segment 3 and 4 distinctly shorter than 1.

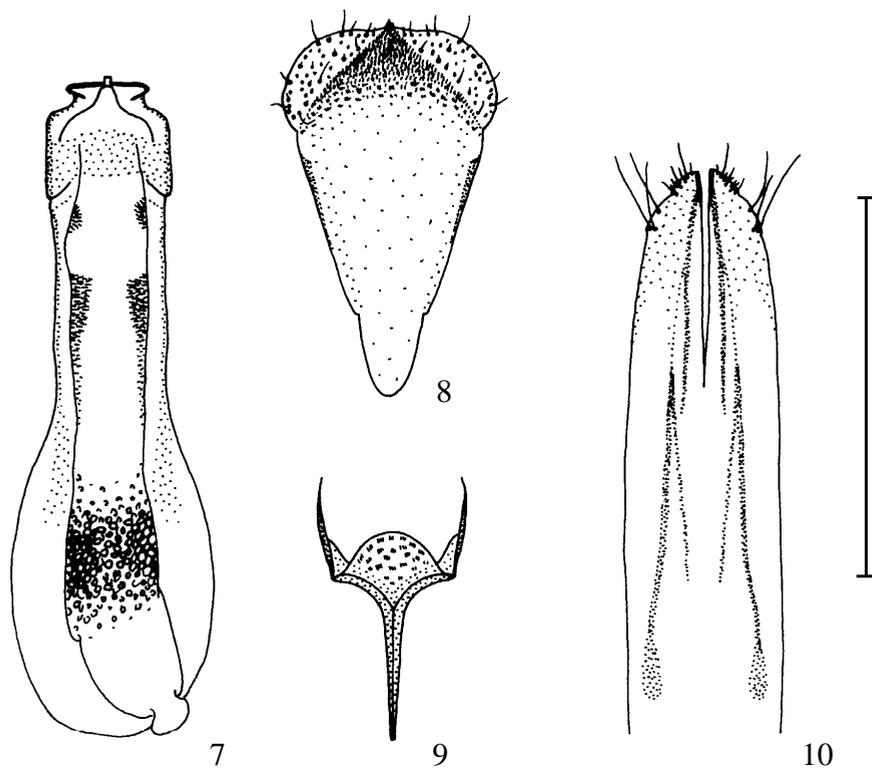
Pronotum about 1.5 times wider than long, double punctate, coarse punctures sparser at middle of disc. Lateral margin in lateral view feebly convex. Scutellum small, triangular.

Elytra 1.8 times longer than pronotum, as long as their combined width, with maximum width at end of basal third. Humeral calli moderately distinct. Elytral striae distinctly punctate, intervals with dense micropuncturation and with distinct irregular row of large punctures.

Sternites without impression or tubercles. Hind legs without sexual characters. Hind tibia with indistinct and incomplete dorsolateral carina, lateral carina not serrate; apical spines sharp, about as long as greatest width of tibia, mesal spine one fifth longer than lateral spine. Claws with distinct basal tooth.

Pygidium double punctate, coarse punctures flat.

Male: Antennal segments 8-10 about 1.2 times longer than wide, segment 11 about 1.6 times longer than wide; ventral margin of segments with erected setae. Abdomen simple, sternite V weakly emarginate to base; pygidium with maxi-



7-10. *Spermophagus truncatus* n. sp.: 7 - median lobe; 8 - lateral lobes; 9 - spiculum gastrale; 10 - ovipositor. Scale bar = 0.5 mm

imum convexity at apical half. Median lobe oblong; ventral valve subrectangular with broad, truncate, apical process, process with minute, blunt, median tip; dorsal valve subtriangular, with apex subacute. Internal sac subapically and at mid part with lateral, irregular bands of spine-like sclerites, subbasally with small, less sclerotized, plate-like sclerites (fig. 7). Lateral lobes extremely short, their length not reaching extreme apex of basal plate, margins nearly semicircular, with about 35-40 setae of different length (fig. 8). Basal plate broad, rhomboidal, medioapically setose, with maximum width in front of middle. Basal strut subtriangular, without median carina. Spiculum gastrale Y-like (fig. 9)

Female: Similar to male, but ventral margin of antennal segments without erected setae, sternite V not emarginate, pygidium weakly convex. Genitalia: ovipositor elongate, strongly modified: pecten, pubescent area and oblique pubescent suture completely reduced; apical lobes with subapical group of 3 very long setae and apical group of about 9 setae of different length, with extreme mesoapical margins strongly sclerotized (fig. 10).

#### HOST PLANT

Unknown.

#### TYPES

Holotype, male: S Laos, Champasak prov., Bolaven Plateau, route Pakse - Paksong (road no. 23), env. of Ban Itou (km 35), 15°10.4'N 106°05.8'E, 800 m, 10.-18.IV. 1999, E. JENDEK & O. ŠAUŠA (CKWA); holotype genitalia slide no. 261099VIII; allotype female, and 15 paratypes, 10 males and 5 females: same data as holotype (CKWA); allotype genitalia slide no. 261099II.

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