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**Description of two new species of the genus
Spermophagus Schoenherr (Coleoptera, Bruchidae,
Amblycerinae) from the Oriental Region**

by **K.-W. Anton**

Abstract: *Spermophagus radjasthanicus* and *S. longepygus*, both new species from Oriental Region, are described inclusively detailed figures and diagnosis.

Key words: Coleoptera Bruchidae – *Spermophagus* – Oriental Region – new species.

Introduction

Working on Oriental Bruchidae I noticed two remarkable species of the genus *Spermophagus*. One species is conspicuous by an unique male pygidium, which is not as yet known from this genus; so it is new to science. Specimens of the other species have a suspicious little size; the structure of their genitalia revealed a hitherto unknown species.

The types of the two new species are deposited in following collections: Naturhistorisches Museum, Basel, Switzerland (NHMB), Muséum d'Histoire naturelle, Genève, Switzerland (MHNG), Zoölogisch Museum – Universiteit van Amsterdam, The Netherlands (ZMUA) and author (KWA).

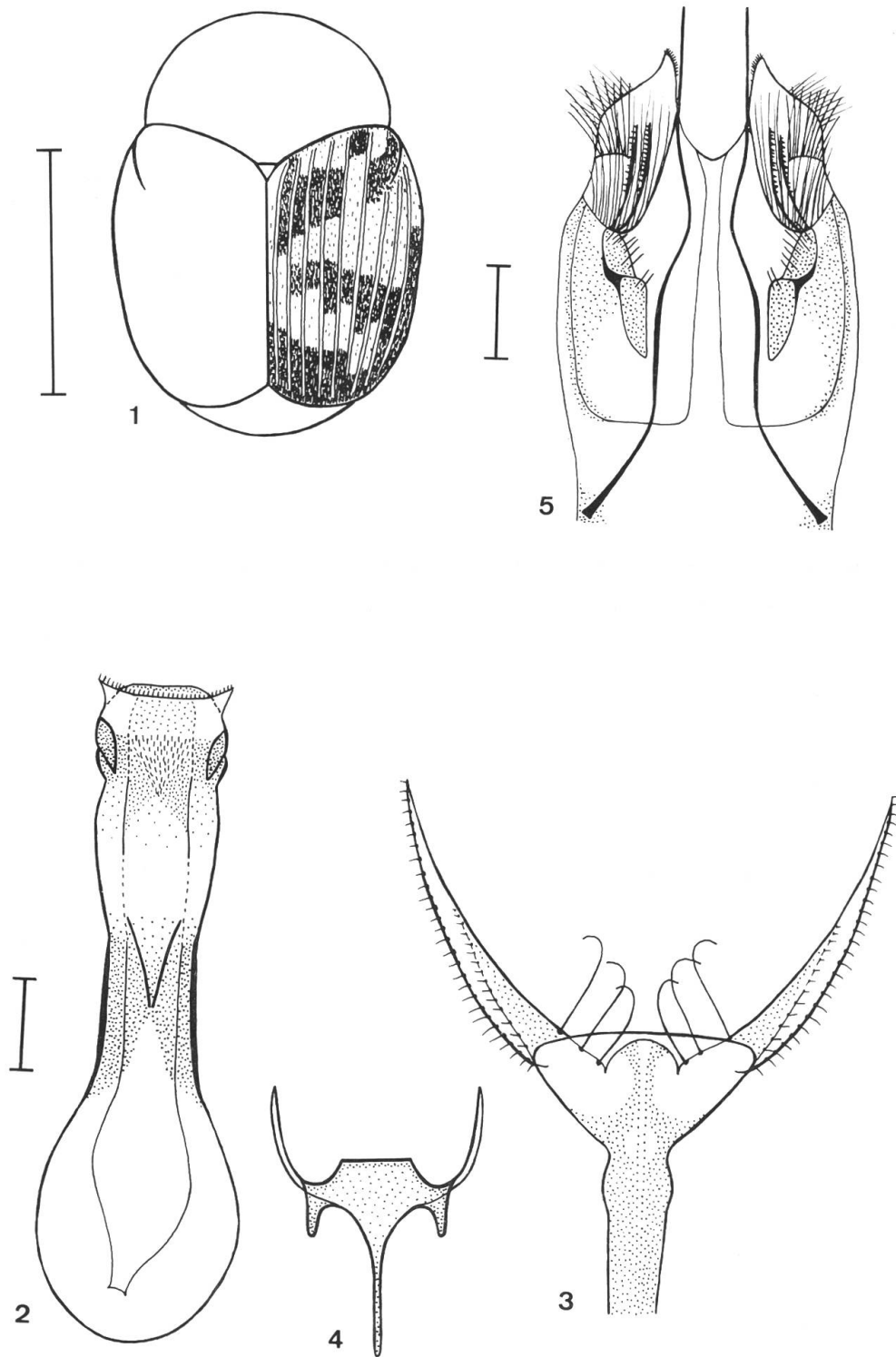
I am very grateful to Prof. L. Borowiec, Wrocław (Poland) and Dr. J. E. Decelle, Tervuren (Belgium) for the loan of types of *S. coimbatorensis* and *S. mannarensis*.

1. *Spermophagus radjasthanicus* n.sp.

Figs 1–5.

Little species. Black; knees of front and middle legs and their tarsal segment 3 red-brown; spines of hind tibiae red. Body oval, broad. Vestiture dense; elytral pubescence varying from mixed grey and brown to brown with greyish pattern, not covering completely surface (Fig. 1).

♂. Head short, broad, with thin obsolete median keel; eyes transverse, flat, deeply incised, with rows of 3–4 facets beyond incision of antenna; distance between eyes about one third of greatest width of eye. Antenna long, more than two third of body length; segment 1 twice as long as 2 and somewhat longer than 3, 4 as long as wide,



Figs 1–5: *Sperophagus radjasthanicus* n.sp.: 1, dorsal habitus. 2–4: male genitalia: 2, median lobe with internal sac. 3, lateral lobes. 4, spiculum gastrale. 5, distal part of female ovipositor. Scale = 0.1 mm.

8–10 about 1.2–1.4 times longer than wide, 11 about 2.2 times longer than wide.

Pronotum transverse, 1.6 times wider than long, base twice as wide as apex; disc double punctured; pronotal edge in lateral view convex. Scutellum very small, triangular.

Elytra less than twice as long as pronotum, together somewhat wider than long; greatest width at end of basal third; distinct humeral callus; intervals with dense micropunctuation and irregular row of flat, coarse punctures; striae with distinct punctures; when brown hairs dominant, then indistinct transversal band behind middle of elytra (Fig. 1); always with dominating brown hairs on elytral tip.

Pygidium as long as wide, very convex, tip deeply drawn into last sternite; surface with coarse, flat punctures, distance between punctures less than their diameter.

Ventral surface with dense, fine punctation. Hind tibia in basal two third with sharp dorsolateral carina; first tarsal segment of hind legs distinctly shorter than hind tibia, with very strong tooth at apex; hind tibial spines linear, outer spine distinctly shorter than inner; claws with basal denticle scarcely reduced.

Genitalia: median lobe short, stout, apex with lateral expansions; ventral valve shallowly convex; internal sac with minute spines in front part, with noticeable constriction in middle part (Fig. 2). Lateral lobes acute apically, with 3–4 long setae at base of inner margin and shorter setae on whole outer margin; base triangular (Fig. 3); strut moderately long, with keel. Spiculum gastrale Y-like, with two additional long and parallel branches (Fig. 4). Apex of urosternite slightly bended, with great median tubercle (see DECELLE 1986).

♀. Similar to ♂, but antenna less than two third of body length, antennal segments somewhat shorter, segment 8–10 as long as wide. Genitalia: ovipositor short, apical lobes angulate, pecten with apex broadened (Fig. 5).

Length: 1.5–1.6 mm (from apex of pronotum to apex of elytra).

Host plant: still unknown.

Types: Holotype ♂ (NHMB); locality: India, Radjasthan, Shirakpuri near Udiapur, 25.II.1984, W. Wittmer; number of genitalia slide: 080491 I. Allotype ♀ (NHMB); locality: India, Radjasthan, Eklingji near Udiapur, 26.II.1984, W. Wittmer; number of genitalia slide: 080491 II. Paratype ♂ (KWA); locality: India, Radjasthan, Bharatpur, 12.VIII.1989, A. Riedel; number of genitalia slide: 220191 IV.

Diagnosis: *Spermophagus radjasthanicus* belongs to the *S. mannarensis* group described by BOROWIEC (1991). This group contains three species now and is characterized by unique male genitalia with ventral valve concave apically combined with lateral lobes placed laterally to more or less triangular basal plate. Differential diagnosis of the new species ensues from the following identification key of the *S. mannarensis* group:

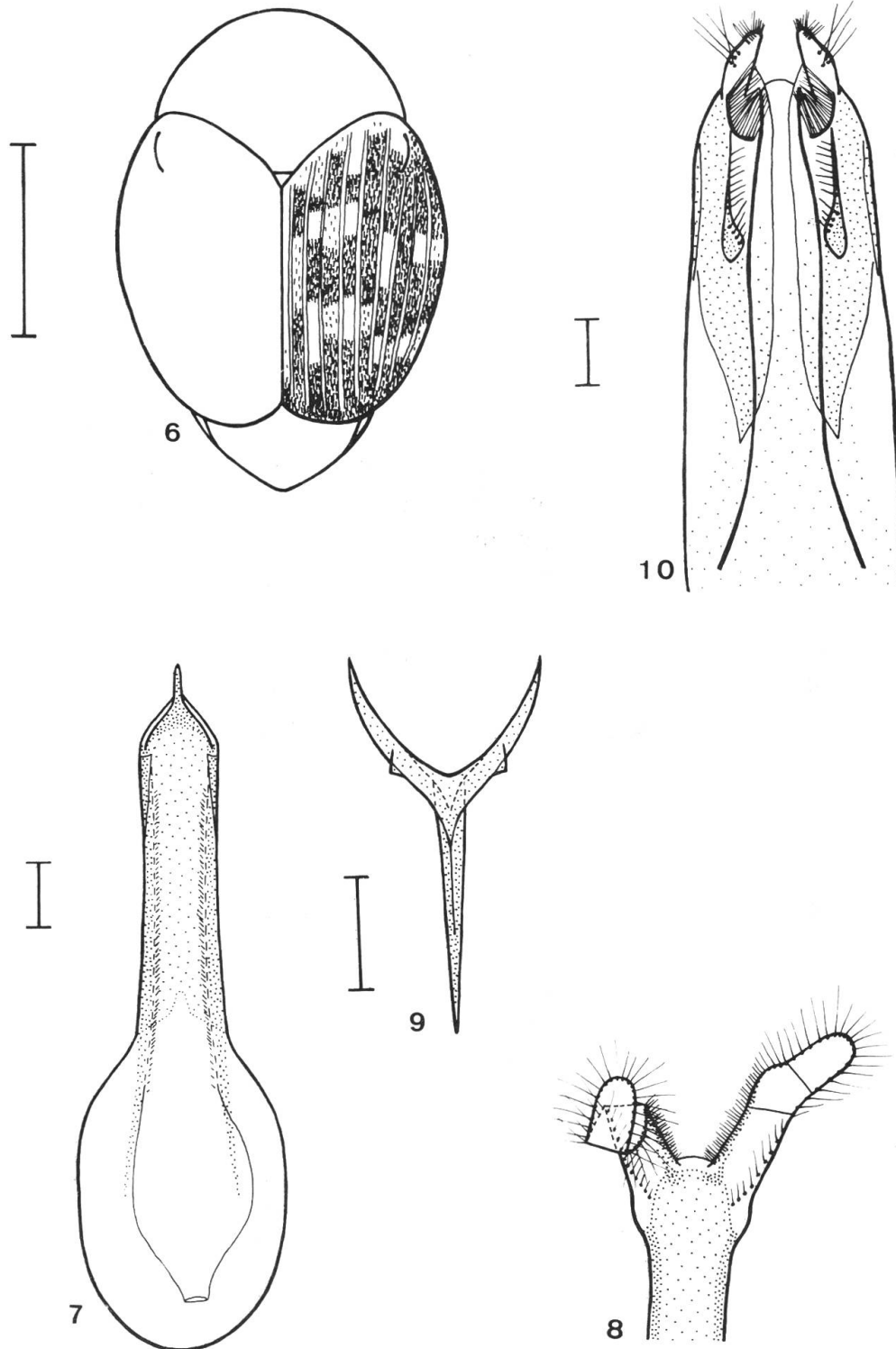
1. Body length above 2.3 mm. Black. Male genitalia: median lobe with anterior margin of ventral valve deeply concave. Female still unknown. S. India. ***S. coimbatorensis*** Borowiec, 1991
- Body length below 2.2 mm. Black with at least knees of front and middle legs red-brown. Male genitalia: median lobe with anterior margin of ventral valve shallowly concave... 2
2. Body length 1.7–2.1 mm. Antennal segment 1–2 at least with underside red-brown, segments 8–10 about 1.7–2.0 times longer than wide. Male genitalia: inner margin of lateral lobes completely bordered with more than 10 setae, basal plate constricted behind widened anterior third. Female genitalia: ovipositor elongate, pecten with apex strongly lengthened. India, Sri Lanka, Vietnam. ***S. mannarensis*** Decelle, 1986
- Body length 1.5–1.6 mm. Antennal segments totally black, segments 8–10 about 1.0–1.4 times longer than wide. Male genitalia: inner margin of lateral lobes with 3–4 basal setae only, basal plate without constriction behind anterior third. Female genitalia: ovipositor short, pecten with apex broadened. NW India. ***S. radjasthanicus*** n.sp.

2. *Spermophagus longepygus* n.sp.

Figs 6–10.

Medium size. Black; spines of hind tibiae red. Body oval, broad. Vestiture dense; elytral pubescence brown with greyish to yellowish hairs forming pattern, not covering completely surface (Fig. 6).

♂. Head short, broad, without median keel; eyes transverse, flat, deeply incised, with rows of 4–5 facets beyond incision of antenna; distance between eyes about one third of greatest width of eye. Antenna long, about two third of body length; segment 1 twice as long as 2 and 1.3 times longer than 3, 4 somewhat longer than wide, 8–10 about 1.4–1.6 times longer than wide, 11 about 2.5 times longer than wide.



Figs 6–10: *Spermophagus longepygus* n.sp.: 6, dorsal habitus. 7–9: male genitalia: 7, median lobe with internal sac. 8, lateral lobes. 9, spiculum gastrale. 10, distal part of female ovipositor. Scale = 0.1 mm.

Pronotum transverse, 1.5 times wider than long, base twice as wide as apex; disc double punctured; pronotal edge in lateral view nearly linear. Scutellum small, triangular.

Elytra less than twice as long as pronotum, as long as wide together; greatest width somewhat before basal half of length; distinct humeral callus; intervals with dense micropunctuation and irregular row of flat, coarse punctures; striae very flat, with very distinct punctures (Fig. 6).

Pygidium 1.4 times longer than wide, very slightly convex, tip not drawn into last sternite; surface with flat micropunctuation and coarse punctures, distance between coarse punctures equal or more than their diameter; sternite 5 not emarginate, twice as long as sternite 4.

Ventral surface with dense and fine punctation. Hind tibia in basal three fourth with distinct dorsolateral carina; inner and outer spine of same length; first tarsal segment of hind legs distinctly shorter than tibia, with very strong tooth at apex; claws with basal denticle well developed.

Genitalia: median lobe moderately long; ventral valve subtriangular, with strongly acuminate apex; internal sac with minute spines in mediolateral part (Fig. 7). Lateral lobes moderately long, tape-like, double folded; setae on both margins, basal two third of inner margin with setae distinctly shorter and denser; basal plate narrow (Fig. 8); strut elongate, with keel. Spiculum gastrale Y-like (Fig. 9). Urosternite elongate, unmodified.

♀. Similar to ♂, but antenna somewhat shorter, antennal segments 8–10 about 1.3 times longer than wide, pygidium nearly as wide as long and somewhat more convex, sternite 5 about 1.8 times longer than 4. Genitalia: ovipositor elongate, apical lobes obtuse, pecten with broadened base (Fig. 10).

Length: 1.9–2.4 mm

Host plant: still unknown.

Types: Holotype ♂ (ZMUA); locality: Indonesia, Bali, Kintamani, III.1915, F. C. Drescher; number of genitalia slide: 151092 III. Allotype ♀ (ZMUA); locality: same data as holotype; number of genitalia slide: 151092 V. Paratypes: 2 ♀♀ (ZMUA, KWA), locality: data as holotype; 4 ♂♂ (ZMUA, KWA), locality: Indonesia, Java, Mt. Kawi, IV.1919, F. C. Drescher; 2 ♂♂ (ZMUA, KWA), locality: Indonesia, Java, Mt. Papandajan, III.1915, F. C. Drescher; 1 ♂ (ZMUA), locality: Indonesia, Java, Mt. Slamet., IV.1917, F. C. Drescher; 1 ♀ (MHNG), locality: Thailand, Chiang Mai, Doi Saket,

950 m, 4.XII.1987, P. Schwendinger; 2 ♂♂ and 2 ♀♀ (NHMB, KWA), locality: India, Darjeeling, Tayang Busty, 1500 m, 7.IV.1986, C. J. Rai; 1 ♀ (NHMB), locality: India, Darjeeling, Alghera, 2710 m, 23.–27.IV.1983, C. J. Rai; 1 ♂ (NHMB), locality: India, Darjeeling, Bombusty, 900 m, 5.V.1983, B. Bhakta; 1 ♂ (NHMB), locality: India, Darjeeling, Monsong, 1100–1300 m, 6.–7.V.1983, B. Bhakta; 1 ♂ (NHMB), locality: India, Darjeeling, Tirpay, 1280 m, 7.IV.1979, B. Bhakta; 1 ♀ (NHMB), locality: India, Darjeeling, Chuba, 1000 m, 27.–28.III.1983, B. Bhakta; 1 ♂ (KWA), locality: India, Darjeeling, Pala, 900 m, 5.IV.1983, B. Bhakta; 1 ♂ (NHMB), locality: Nepal, Thamur V., Dhankuta, 1150 m, 23.V.1983, M. Brancucci; 1 ♀ (KWA), locality: Nepal, Arun V., Mure, 2000 m, 2.–8.VI.1983, M. Brancucci.

Diagnosis: *Spermophagus longepygus* differs from all known species of this genus in the unique characters of the male pygidium and sternite 5. As the genitalia of both sexes are more or less of standard type, a description of a new genus basing on these characters only is in my opinion senseless.

References

- BOROWIEC, L. (1991): *Revision of the genus Spermophagus Schoenherr (Coleoptera: Bruchidae: Amblycerinae). Genus (Supplement):* 198 pp.
- DECELLE, J. E. (1986): *Une nouvelle espèce de Spermophagus Schoenherr (Coleoptera: Bruchidae: Amblycerinae) du Sri Lanka (Ceylan)*. Bull. Anns r. belge Entomol., 122: 151–153.

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