SPHAEROLIODES ACUMINATUS SP. N. (COLEOPTERA: LEIODIDAE, LEIODINAE) FROM TAIWAN AND NOTES ON TWO OTHER SPECIES

Z. ŠVEC

Žerotínova 47, CZ-130 00 Praha 3, Czech Republic, E-mail: svec@czpi.cz

Sphaerolides acuminatus sp. n. from Taiwan is described and distinguished from the others species of the genus. *Colenisia topali* DAFFNER, 1988 is recorded for the first time from Taiwan and *Zeadolopus ventriculus* ŠVEC, 1997 from Ghana.

Key words: taxonomy, Leiodidae, Leiodinae, Sphaeroliodes, Colenisia, Zeadolopus, Taiwan, Ghana

INTRODUCTION

Two species of the genus *Sphaeroliodes* PORTEVIN, 1905 were known up to now (PORTEVIN 1905, PERKOVSKY 1988). Both species seem to occur very rarely. Only the type series is known of *S. erlan* PERKOVSKY, 1988; the other species, *S. rufescens* PORTEVIN, 1905 was recorded only four times since the year of the original description (PORTEVIN 1914, 1927, HLISNIKOVSKÝ 1963, PERKOVSKY 1988).

Colenisia of the Palaearctic region was studied by DAFFNER (1988), HOSHINA (1999) and ŠVEC (1994). Only two Palaearctic species occurring in continental China and Taiwan were described under the genus until now.

African Zeadolopus were recently reviewed by ŠVEC (1997). Altogether four species including one species of doubtful taxonomic placement are known from Africa.

MATERIAL

The leiodid material from the collection of the Hungarian Natural History Museum, Budapest (HNHM) was studied. Two specimens of an unknown *Sphaeroliodes* that were discovered among the material were compared to three specimens of *S. rufescens* preserved in the collection of the National Museum, Prague (NMP). HLISNIKOVSKÝ (1963) designated one of them as allotypus and the others as paratypes, although the specimens did not belong to the type series. In fact the original description was based on a single female only. For the identification of the other species mentioned in this paper, the type and other material are preserved in the author's collection.

192 z. švec

TAXONOMIC PART

Sphaeroliodes acuminatus sp. n.

(Figs 1-4)

Type material – Holotype, male, "Taiwan, Nantou Pr., Hoshuanshan Exp. Stat., $24^{\circ}09^{\circ}N$, $121^{\circ}17^{\circ}E$, from bark at night, 3100 m, 27.ix.1999, G. Csorba & B. Herczig", HNHM; paratype, male, the same, SC.

Description – Length of body 4.8–5.1 mm, in holotype 4.8 mm, head 1.0 mm, pronotum 1.3 mm, elytra 2.5 mm, antenna 1.6 mm, maximum width of head 1.6 mm, pronotum 2.9 mm, elytra 2.8 mm.

Broadly oval (Fig. 1); reddish-brown with pronotal lateral margins widely and basal margin narrowly reddish; underside reddish with yellow-brown mesosternum and light chestnut metasternum. Mouth parts and antennae up to segment 6 reddish-brown; antennal segments 7–11 infuscate. Dorsum partly, venter entirely microsculptured.

Head. Convergent anteriorly in dorsal view; widest at broadly rounded temporal angles. Temples very long; length ratio of eye: temple = 1.4. Clypeal line very fine and unobtrusive. Puncturation fine, punctures separated by about 4–8 times their own diameter; each puncture furnished by single short fine pale, forward directed, seta. Two large frontal punctures located near each eye medially. Traces of microsculpture on front near eyes. Antennae (Fig. 4) with very long and slim segment 3. Length ratio of antennal segments 2–11: 1.0-3.0-1.0-1.0-0.8-0.9-0.9-1.3-1.3-2.5. Ratio of length: width of antennal segments 2–11: 1.3-3.5-1.2-1.1-0.8-0.8-0.8-1.0-1.0-2.1. Width ratio of club segments: 1.0-0.9-1.2-1.2-1.1.

Pronotum. Widest at base. Basal margin curved forward laterally to posterior angles; those very broadly rounded in dorsal and lateral view. Pronotum very finely bordered from lateral sixth of basal length to anterior angles. Median part of pronotal base and anterior margin simple. Punctures larger than those on head; separated by 4–6 times their own diameter, each puncture furnished by single short fine pale, backward directed, seta. One large shallow puncture at each side of disc. Interstices with microreticulation increasing in strength laterally and basally; anteriorly weakly developed, superficial.

Scutellum, Smooth,

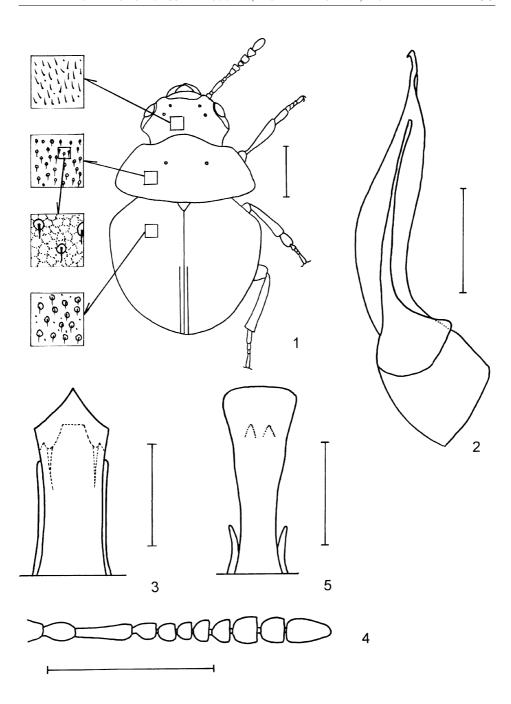
Elytra. Broadest at broadly rounded shoulders. Distinctly punctured; punctures inordinate, large shallow, separated by 1–2 times their own diameter. Interstices with traces of irregular transverse discontinuing wrinkles. Some minute scarce punctures interposed. Sutural stria feebly impressed reaching half of elytral length. Lateral margins feebly margined. Epipleurae feebly transversely wrinkled.

Legs. Tarsal segment 1 on anterior and middle legs strikingly dilated, broader than tibia distally; segment 2 feebly dilated.

Genitalia. Aedeagus as in Figs 2-3. Female unknown.

Variation. Head lacking microsculpture; pronotum anteriorly and on disc with traces, posteriorly and laterally with well-developed microreticulation in paratype.

Diagnosis. *Sphaeroliodes acuminatus* sp. n. differs from both other species of the genus by antennal segment 3, being three times longer than segment 2, while segment 3 is at most 1.5 times as long as segment 2 in both species compared. Also aedeagus shows specific characters.



Figs 1–5. 1–4: *Sphaeroliodes acuminatus* sp. n.: 1 = body outline, 2 = aedeagus laterally, 2 = anterior tarsus, 3 = tip of aedeagus dorsally, 4 = antenna. 5 : S. *rufescens* PORTEVIN, 1905, tip of aedeagus dorsally

194 z. švec

DISCUSSION

PERKOVSKY (1988) in the key to the identification distinguished *Sphaerolio-des erlan* from *S. rufescens* by their colour and presence of microsculpture and by width-to-length ratio of antennal segments 9 and 10. According to the original description *S. erlan* has reddish head and pronotum lacking microsculpture, while microsculpture is present on dark brown head and pronotum in *S. rufescens*. Presence and strength of microsculpture are variable in *S. acuminatus*. PERKOVSKY (1988) supposed antennal segments 9 and 10 to be quadrate while width-to-length ratio is 1.3–1.4 in *S. erlan*. In fact the same ratio is 1.3 (segment 9) and 1.2 (segment 10) in specimen of *S. rufescens* labelled as allotypus. The shape of aedeagus (judging from the drawing given by PERKOVSKY 1988, figs 4–5) is extremely similar, without obvious differences, in *S. erlan* and *S. rufescens*. It seems that the matter requests further studies.

Taking into account all that is mentioned above, all species of the genus could be distinguished as follows:

- Tip of aedeagus truncate with rounded edges (Fig. 5). Antennal segment 3 at most 1.5 times as long as segment 2
- Tip of aedeagus triangular (Fig. 3). Antennal segment about 3 times as long as segment 2. Length 4.8–5.1 mm. Taiwan
 S. acuminatus sp. n.
- 2 Head and pronotum dark brown; microsculptured. Length 3.8–4.5 mm. Japan, Kuril Isl.

 S. rufescens PORTEVIN, 1905
- Head and pronotum reddish; without microsculpture. Length 4.5 mm. Russian Far East
 S. erlan PERKOVSKY, 1988

Colenisia topali DAFFNER, 1988

Material examined – 2 males, Taiwan, Nantou Prov., Huisun Forest Area, 15 km N of Puli, 500 m, under bark, 12–13.4.1997, G. Csorba & L. Ronkay, HNHM, SC.

Distribution: Vietnam, Taiwan. New for Taiwan.

Zeadolopus ventriculus ŠVEC, 1997

Material examined – 2 males, 2 females, Ghana, Ashanti, Kumasi, 330 m, N 6.43 – W 1.36, light trap, no 225, 12.vi.1967, leg. Endrődy-Younga, 1 male, same but 16.vi.1967, light trap, no 226; 4 specimens, HNHM, 1 specimen, SC.

Distribution: Ethiopia, Ghana. New for Ghana.

*

Acknowledgements – I wish to thank Dr. JOSEF JELÍNEK (NMP, Prague, Czech Republic) and Dr. OTTÓ MERKL (HNHM, Budapest, Hungary) for making the material preserved in NMP and HNHM available for study. My thanks are also due to my friend JONATHAN COOTER (Hereford, England) for reading the manuscript.

REFERENCES

- DAFFNER, H. (1988) Die Arten der Gattung Colenisia Fauvel, 1903, aus Südost-Asien und Sumatra (Coleoptera, Leiodidae, Pseudoliodini). *Acta Coleopt.* **4**: 29–42.
- HLISNIKOVSKÝ, J. (1963) 2. Beitrag zur Kenntnis des Tribus Agathidiini (Col. Liodidae): Die Gattung Sphaeroliodes Portevin. Časopis Českosl. Společ. Entomol. 60: 140–143.
- HOSHINA, H. (1999) A taxonomic study of the genera Dermatohomoeus and Colenis (Coleoptera: Leiodidae) from Japan. *Entomol. Science* 2: 413–423.
- PERKOVSKY, E. J. (1988) A new species of the leiodid genus Sphaeroliodes Portevin (Coleoptera, Leiodidae) from Southern Primorye territory. *Entomol. Obozr.* **67**: 778–779. [in Russian]
- PORTEVIN, M. G. (1905) Troisième note sur les Silphides du Muséum. *Bull. Mus. Hist. Natur. Paris* 1905: 418–424.
- PORTEVIN, M. G. (1914) Silphides et Liodides nouveaux. Ann. Soc. Entomol. Belg. 58: 190-198.
- PORTEVIN, M. G. (1927) Les Liodidae du Japon. Entomol. Col. Paris 2: 73-94.
- ŠVEC, Z. (1997) New African and Asian species of Leiodinae (Coleoptera: Leiodidae) from the Hungarian Natural History Museum in Budapest. *Acta zool. hung.* **43**: 213–224.

Received September 9, 2001, accepted December 16, 2002, published January 15, 2003