

GENITAL STRUCTURES OF TWO SPECIES OF THE GENUS *SCYMBALIUM* ERICHSON, 1839 (COLEOPTERA, STAPHYLINIDAE, PAEDERINAE)

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scientific note

Descriptions of the internal structures of the genitalia of *Scymbalium anale* (Nordmann, 1837) and *S. persimile* (Cameron, 1940) are presented in this paper. The structure of endophallus and genital structures of females of both species are homotypic.

Key words: *Staphylinidae, Paederinae, Scymbalium, genitalia.*

1 Introduction

In this paper, description of the morphology is presented on the internal structures of the genitalia (endofallus, spermatheca and vagina) of males and females of two species - *Scymbalium anale* (Nordmann, 1837) and *S. persimile* Cameron, 1940. Detailed studies have not been done on the genitalia of these species up to now.

These data can be used in taxonomy and systematics.

2 Material and Method

Specimens were mounted on a cardboard plate (glued with water-soluble glue) and pinned onto an insect pin. Genitalia were placed on a plastic plate in Hoyer's medium or in a container with an aqueous solution of glycerol, and pin up one pin with the corresponding specimens. Part of the preparations was made with endofallus fully straightened, and in some – only partially.

Terminologies of describing genitalia (partially) and of their preparation were derived from Khachikov and Shavrin 2010.

The abbreviations in the text and illustrations are given below:

ventral-distal titillator – vdt

apical projection – ap

medio-lateral chamber – mlch

dorsal chamber – dch

lateral chamber – lch

vagina – vag

sex gland – sg

spermatheca – sp

Places of storage of the materials are marked as follows:

cEKh – private collection of Khachikov E. (Rostov-on-Don, Russia).

3 Results

Genus Scymbalium Erichson, 1839

Type species Achenium anale Nordmann, 1837

Scymbalium anale (Nordmann, 1837: 153)

Material: 2♂, 2♀, Russia. Rostov region., vill. Bagaevskaya, 20.VI.2009. leg. Khachikov E. (cEKh).

Distribution: Europe, Algeria, Middle East, Turkey, Kazakhstan, Turkmenistan (Schülke & Smetana, 2015).

Genitalia. Male. Endofallus is short as a whole and extended distally. The ventral side of endofallus: large ventral-distal titillator (vdt) is situated in its distal part. Medio-lateral chambers (mlch) adjacent to ventral-distal titillator (vdt) laterally, on each side. The dorsal side: apical projection (ap) is located in its apical part. Dorsal chamber (dch) is in the proximal part. The lateral side: lateral chambers (lch) are situated in its middle part on each side.

Female. Vagina is sacciform, with transverse grooves. Spermatheca (sp) is curved and sclerotized. Sex gland (sg) is elongated, slightly curved. (Figure: 1 – 4)

Scymbalium persimile Cameron, 1940: 251

Material: 2♂, 2♀, Russia, Daghestan, Makhachkala city, N of suburb, Karaman-2, 16.VI.2009, leg. İlçina E. (cEKh).

Distribution: Iraq and South European Territory of Russia (Anlaş et al., 2012).

Genitalia. Male. Endofallus is short as a whole, wider in the distal part. Apical projection (ap) is situated in its apical-dorsal part. Dorsal chamber (dch) is in the proximal part dorsally. On the ventral side, large ventral-distal titillator (vdt) is located in its distal part. Medio-lateral chambers (mlch) are adjacent to ventral-distal titillator (vdt) laterally, on each side. Lateral chambers (lch) are located in the middle part of endofallus on each lateral side.

Female. Vagina is baggy, with transverse grooves. Spermatheca (sp) is curved and sclerotized. Sex gland (sg) is elongated, slightly curved. (Figure: 5-7)

3 Comparison

The structure of endofallus and genital structures of females of both species are homotypic, likely. The main differences are in some particulars at the level of species. For example, in *Scymbalium persimile* the ventral-distal titillator is larger than for *S. anale*. Thus, as presented, the structure of the genitalia of these species accentuated their taxonomic status.

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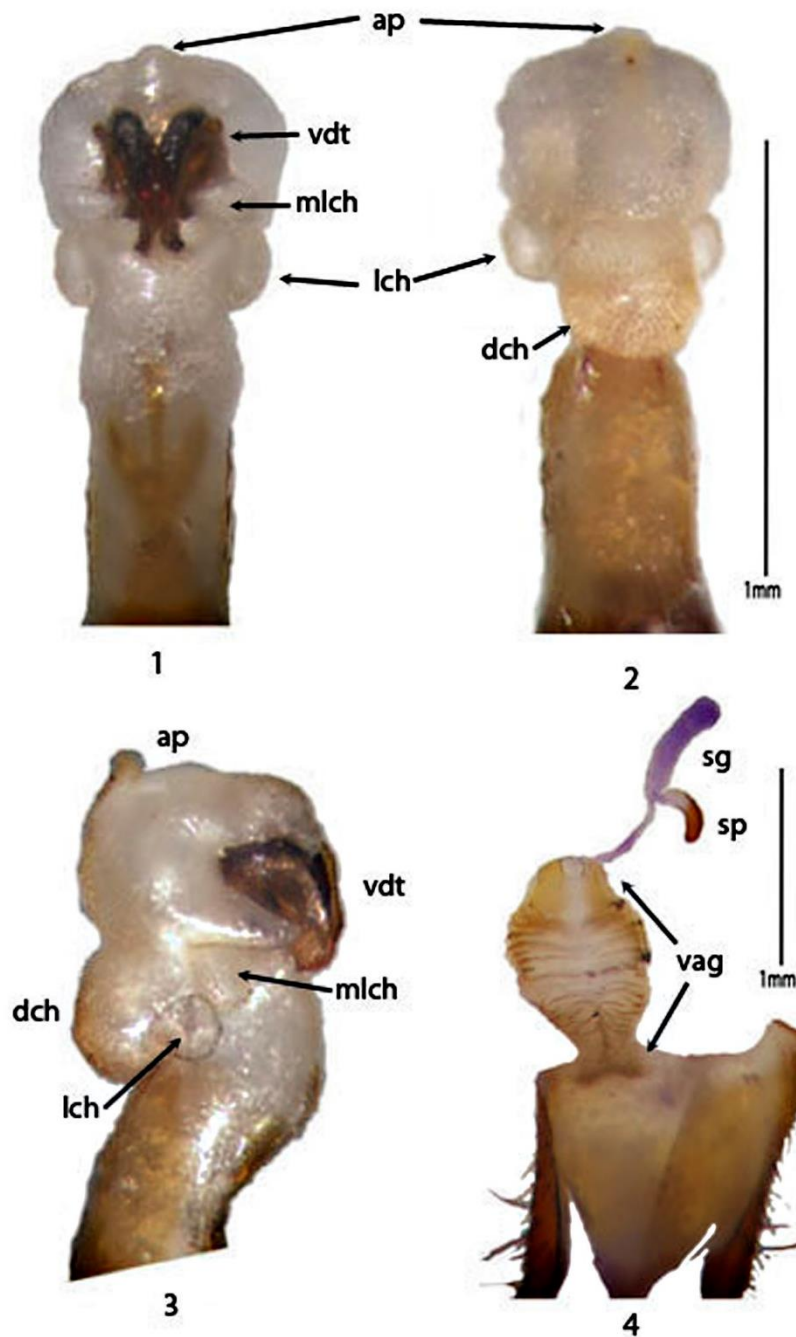


Figure 1-4: Genitalia morphology of *Scymbalium anale* (Nordmann, 1837)

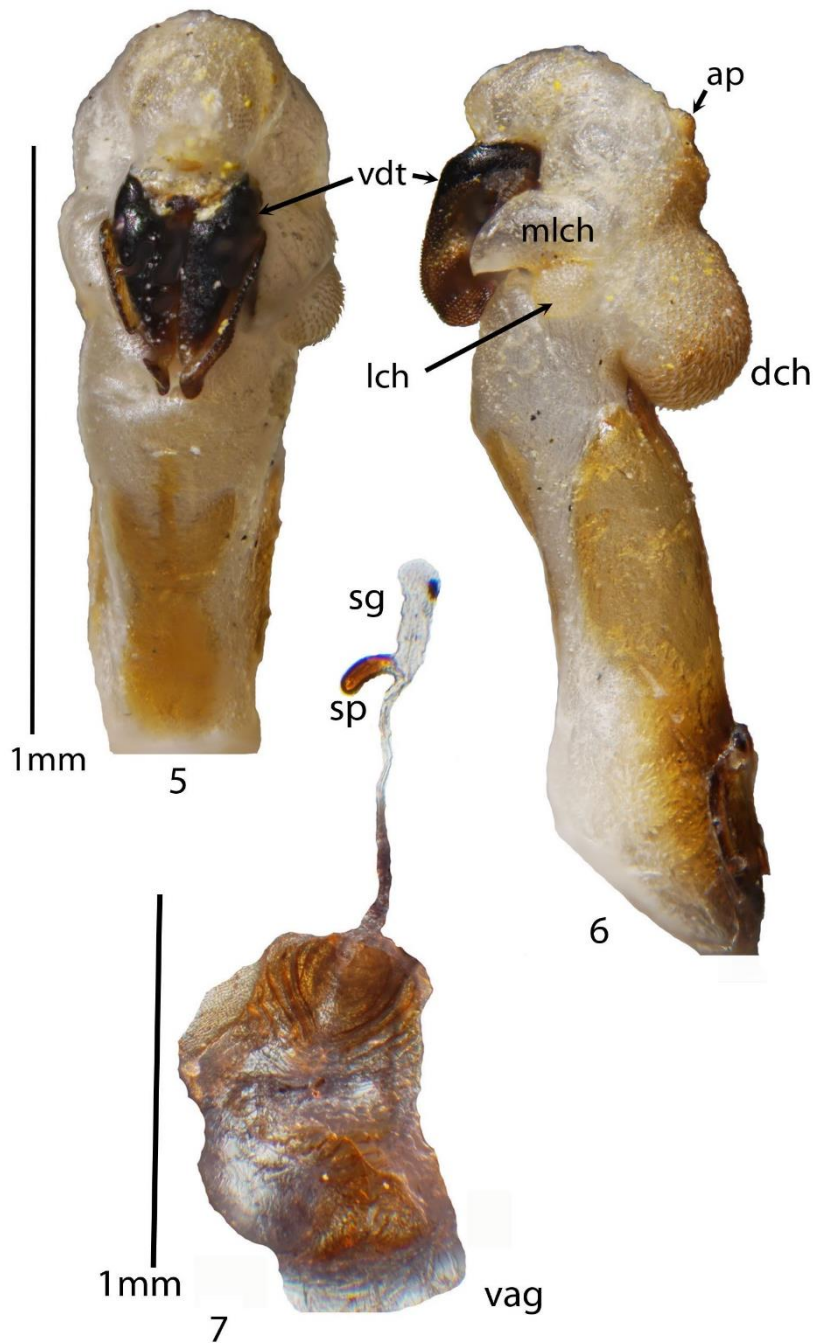


Figure 5-7: Genitalia morphology of *Scymbalium persimilis* Cameron, 1940

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