

***Phaneropella (Hittitia) kociani* sp. nov. (Coleoptera: Leiodidae: Cholevinae: Leptodirini) from Caucasus**

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Abstract. *Phaneropella (Hittitia) kociani* sp. nov. from Georgia, Svaneti (Caucasus) is described and illustrated.

INTRODUCTION

The genus *Phaneropella* Jeannel, 1910 is a member of the subtribe Bathysciina, tribe Leptodirini. The type species of the genus is *Adelops lesinae* Reitter, 1881 described from Croatia. The genus contains four species attributed to three subgenera - *Phaneropella (Phaneropella) lesinae* (Reitter, 1881), *P. (Uludagites) minuta* Casale, Giachino, Vailati & Rampini, 1991, *P. (Hittitia) schuelkei* Perreau, 2010, *P. (Hittitia) turcica* (Reitter, 1884), and one species incerte sedis *Phaneropella medea* Perkovsky, 1990 at present. The species are known from Bosnia and Hercegovina, Croatia, Italy, Turkey and Georgia.

The aim of the present paper is to describe a new species of the genus recently collected in Svaneti, Georgia during the common expedition of Matúš Kocian, Zdeněk Švec and Peter Hlaváč in July 2015. As the genus is probably polyphyletic and not sufficiently defined (Perreau, 1999), and therefore the generic conception is not conclusively settled at present, the new species is provisionally placed in the subgenus *Hittitia*. The new species agrees well with the definition of *Hittitia* (Casale, Giachino & Vailati 2013) except of the shape of the spermatheca.

MATERIAL AND METHODS

The description of the new species is based on holotype only but variation exhibited by paratype specimens is recorded. Specific measurements of the individual body parts were taken from the holotype, and in addition the measurements of total body length were taken from all the specimens in the type series and this is expressed as a size range. All measurements are rounded to the first decimal place.

Generally the description does not contain those characters that seem to be common to the species within the genus.

Dissected male and female genitalia were mounted in polyvinylpyrrolidone (Lompe 1986) or Euparal on plastic plate and placed on the pin under the relevant specimen. Each

specimen of the type series is bearing the following red label: HOLOTYPE or PARATYPE *Phaneropella kociani* Z. Švec des. 2016.

Data quoted from the labels accompanying the specimens are reproduced verbatim. All labels are printed. The main terminology used in the present paper is as follows:

mesoventral carina = longitudinal carina on mesoventrite;

rasp-like punctures = punctures with anterior margin raised like teeth on rasp - carpenters file.

Abbreviations:

MKPC private collection of Matúš Kocian, Praha, Czech Republic;

PHPC private collection of Peter Hlaváč, Praha, Czech Republic;

ZSPC private collection of Zdeněk Švec, Praha, Czech Republic.

TAXONOMY

Phaneropella (Hittitia) kociani sp. nov.

(Figs. 1-5)

Type material. Holotype (♂): “Georgia, Svaneti, 1480 m, Mestia env., stream valley, sifting leaf litter, 43.063539 N, 42.754931 E, 10.vii.2015, Z. Švec lgt.”, (ZSPC). Paratypes (5 ♂♂, 13 ♀♀): “Georgia, Svaneti, valley of Khuberi river, leaf litter sifting, 720 m, 42.856190 N, 42.039240 E, 4.vii.2015, Z. Švec & M. Kocian lgt.”, (MKPC, PHPC, ZSPC).

Description. Length of body 1.4 - 1.5 mm, in holotype 1.5 mm. Length of body parts in holotype: head 0.2 mm, pronotum 0.4 mm, elytra 0.9 mm, antenna 0.5 mm, aedeagus 0.4 mm, spermatheca 0.1 mm. Maximum width of body parts in holotype: head 0.4 mm, pronotum 0.6 mm, elytra 0.6 mm.

Body bathyscioid, oblong oval (Fig. 1), dorsum reddish-brown covered by yellow, predominantly recumbent setae. Venter reddish-brown, margins of mid- and hind-coxae and longitudinal mesoventral carina darker. Antennae, palpi, tarsi yellowish-red, unicolorous, femora and tibiae reddish-brown. Dorsum entirely microreticulate; punctured, elytra partly also with transversely arranged punctures creating traces of weak transverse scratches.

Head widest at eyes, dorsal surface distinctly microreticulate by irregular, predominantly four-sided cells, punctures very small and fine, inconspicuous, marked by short recumbent setae directed anteriorly on frons and clypeus, posteriorly on vertex. Punctures separated by more than 5 times their own diameter. Relative lengths of antennomeres II-XI: 1.0 - 0.5 - 0.4 - 0.4 - 0.4 - 0.5 - 0.3 - 0.5 - 0.6 - 1.1. Relative width of antennomeres II-XI: 1.0 - 0.6 - 0.6 - 0.6 - 0.6 - 1.0 - 0.8 - 1.2 - 1.4 - 1.6. Antennomere XI distinctly longer than wide, wider than penultimate. Ratios of width / length of antennomeres II-XI: 0.5 - 0.6 - 0.8 - 0.8 - 0.8 - 1.0 - 1.3 - 1.2 - 1.2 - 0.7. Eyes strongly reduced, not visible dorsally.

Pronotum widest at base, dorsal surface distinctly microreticulate by irregular, predominantly four-sided cells, sides of pronotum roundly tapered anteriorly in dorsal view, slightly concave before acute pointed hind angles in lateral view; hind angles acute, pointed also in dorsal view. Puncturation inconspicuous, punctures very small and fine, sparser and finer than on head, marked by short recumbent setae directed posteriorly. Punctures separated by more than 10 times of their diameter.

Scutellum very small, triangular.

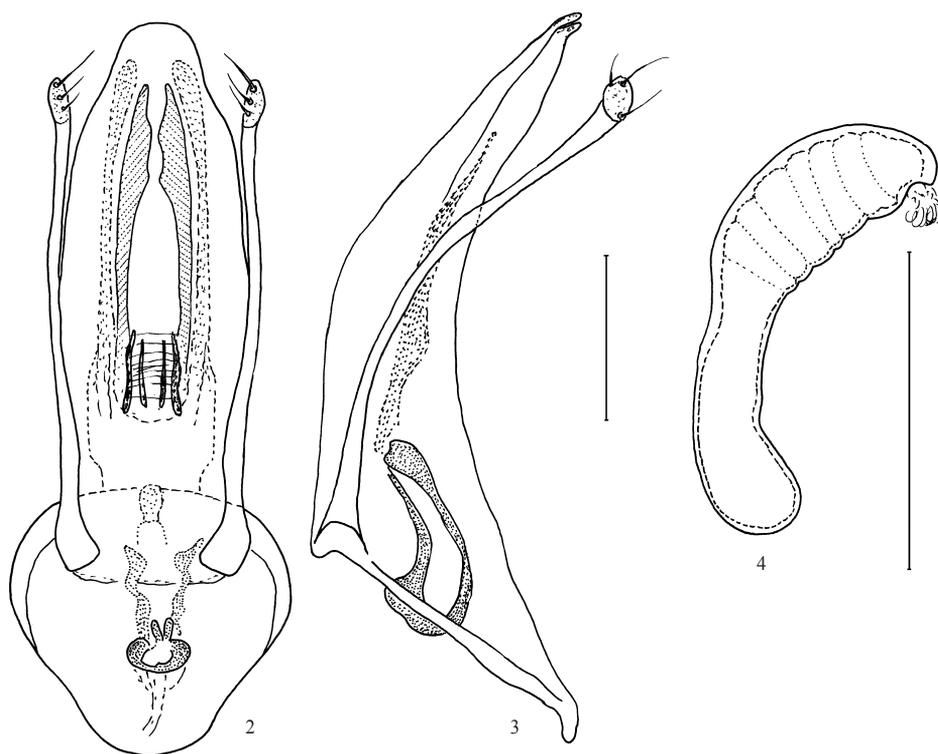
Elytra lacking sutural striae, widest at basal third, dorsal surface distinctly microreticulate by irregular, angulate cells of various size and shape, punctures stronger than on head and pronotum, slightly rasp-like shaped, separated by about 5 times or more of their diameter. Punctures especially at posterior half of elytra tend to align into transversal parallel lines getting stronger toward elytral apex. Therefore at least a part of elytral surface seems to be transversely scratched in some direction of illumination. Setation of elytra similar to that on pronotum with few erect setae disseminated through dorsal surface.

Legs with tarsal formula 4-5-5 in both sexes, tarsi not expanded, simple, without specific characters, anterior tibiae slightly bent with apical two long spines at both medial and lateral sides, longest spines approximately as long as tarsomere I. Mid tibiae with similar, slightly shorter spines than tarsomere I, hind margin of hind femur with apical lobe, tibiae with two apical long spines, longest spine approximately as long as tarsomere I, lateral side of tibiae with several spines. Mesoventrite with high and angulate longitudinal carina, steeply falling anteriorly, exceeded behind on metaventrite.

Aedeagus as in Figs. 2-3, parameres widened distally, tea-spoon shaped at apex. Spermatheca as in Fig. 4.



Fig. 1: *Phaneropella (Hittitia) kociani* sp. nov. (holotype). Dorsal aspect.



Figs. 2-4. *Phaneropella (Hittitia) kociani* sp. nov.: 2- aedeagus dorsally; 3- aedeagus laterally; 4- spermatheca. Scale in Figs. 2-4 = 0,1 mm. Orig. by P. Hlaváč.

Variability. The strength and intensity of dorsal sculpture, especially aligned punctures creating traces of transverse structures, varies in the type series. Transverse structures detectable on the entire surface of elytra in some of the paratypes while the same is more distinct toward elytral apex. Pronotal lateral margin straight before hind angles in some paratypes. Apical lobe of the hind margin of hind femur present in both sexes.

Differential diagnosis. *Phaneropella kociani* sp. nov. is similar to Turkish *Phaneropella (Hittitia) turcica* (Reitter, 1884), *Ph. (H.) schuelkei* Perreau, 2010 and also Georgian *Phaneropella medea* Perkovsky, 1990 in general appearance, especially in lack of the sutural stria and also in the shape of the median lobe of aedeagus. It differs significantly by widened, tea-spoon shape apex of parameres and also by the shape of spermatheca.

Etymology. The new species is dedicated to my friend Matúš Kocian, one of the collectors of the new species.



Fig. 5: Type locality of *Phaneropella (Hittitia) kociani* sp. nov.

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REFERENCES

- CASALE A., GIACHINO P. M. & VAILATI D. 2013: Tre nuove specie di Coleotteri sotterranei di Grecia (Coleoptera: Carabidae e Cholevidae). *Bollettino della Societa Entomologica Italian* 145: 9-25.
- PERREAU M. 2010: Une nouvelle espèce de *Phaneropella* Jeannel, 1910, de Turquie (Coleoptera, Leiodidae, Cholevinae, Leptodirini). *Bulletin de la Société Entomologique de France* 115 (1), 2010: 47-50.
- LOMPE A. 1986: Ein neues Einbettungsmittel für Insectenpräparate. In Puhtz V. Kleine Mitteilungen. *Entomologische Blätter* 82: 119.

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