

# On the *Othius* Stephens in the fauna of the Caucasus and Northeastern Anatolia (Coleoptera: Staphylinidae: Xantholininae)

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*Othius ziganensis* sp. n. from the Northeastern Anatolia is described and compared with related species. From this region, additional records and data on bionomics are provided for *O. grandis* Hochhuth, 1849, *O. lapidicola* Märkel & Kiesenwetter, 1847, and *O. angustus stenocephalus* Eppelsheim, 1881. New localities are recorded for the Caucasian *O. jadvigae* Roubal, 1911 and *O. serratus* Assing, 1997, as well as for the widely distributed *O. laeviusculus* Stephens, 1833.

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## Introduction

The Caucasian and Anatolian representatives of the staphylinid genus *Othius* Stephens were recently treated in several shorter publications (Ushakov, 1988; Solodovnikov, 1996, 1998a, 1998b; Assing & Solodovnikov, 1998) and the revision by Assing (1997). Assing's revision appeared when the list by Solodovnikov (1998a) was in press. The following corrections should be made in the latter: *O. jadvigae* Roubal, *O. sp. n.* and *O. sp.* should be considered as *O. solodovnikovi* Assing, *O. jadvigae* Roubal and *O. laeviusculus* Steph., respectively. Because of the scarcity of collected material, still relatively little is known about the genus in these mountain ranges. During my trip to the mountains of northeastern Anatolia, made together with B. Kataev and A. Stekol'nikov in June 1998, 4 species of *Othius* were collected, one of which, *O. ziganensis*, is new and described below. In this contribution, which is mainly based on recently collected material, records as well data on bionomics are provided for *O. grandis* Hochhuth, *O. lapidicola* Märkel & Kiesenwetter, and *O. angustus stenocephalus* Eppelsheim. Hitherto unpublished records are presented for *O. jadvigae* Roubal and *O. serratus* Assing. A new record from the extremely western part

of the Caucasus is given for *O. laeviusculus* Stephens.

The material is kept in the collection of the Zoological Institute, St.Petersburg (ZIN), as well in the private collections of V. Assing (cAss) and of the author (cSol). All measurements are given in mm and abbreviated as follows: HL: length of head from base of clypeus to neck; HW: maximum width of head; PL: length of pronotum along median line; PW: maximum width of pronotum; EL: length of elytra from shoulder to elytral hind margin; EW: maximum width of elytra (when closed along suture); FB: length of forebody from apex of mandibles to hind margin of elytra; TL: total length from apex of mandibles to hind margin of tergite 10.

## *Othius grandis* Hochhuth, 1849

*Material examined.* Turkey, Erzurum, 1 ♀, Mescit Dağlari, northern slopes, about 40 km NW of Tortum, 1800 m, pine forest, sifted from litter, 21.VI. 1998, leg. A. Solodovnikov (cSol).

For distribution and bionomics see Ushakov, 1988; Assing, 1997; Solodovnikov, 1998a, 1998b.

The new locality is within the known area of distribution of *O. grandis* Hochh. in NE Anatolia.

***Othius lapidicola* Märkel & Kiesenwetter, 1847**

*Material examined.* Turkey, *Erzurum*: 1 ♂, Mescit Dağlari, SE slopes, 40 km NW of Tortum, 1800 m, pine forest, sifting from litter, 21.VI.1998, leg. A. Solodovnikov (cSol); 1 ♀, Mescit Dağlari, southeastern slopes, 35 km NW of Tortum, 2600 m, alpine zone, 19.VI.1998, leg. A. Solodovnikov (cSol).

For distribution and bionomics see Assing, 1997.

The new data fit the pattern of distribution and bionomics known for *O. lapidicola* in Northern Turkey. However, the altitude of 2600 m exceeds the known upper limit of this species by 200 m.

***Othius angustus stenocephalus* Eppelsheim, 1881**

*Material examined.* Turkey, *Trabzon*: 1 ♂, 1 ♀, Kalkanli Dağlari, NW slopes, 10 km S of vill. Dik-kaya, 2000 m, alpine zone, under stones, 9.VI.1998, leg. A. Solodovnikov (cSol); 1 ♂, 1 ♀, Kalkanli Dağlari between Zigana pass and Mt. Zigana, 2300 m, alpine zone, under stones, 10.VI.1998, leg. A. Solodovnikov (ZIN, cSol).

For distribution and bionomics see Assing, 1997; Solodovnikov, 1998a.

Regarding localities and bionomics, both records of *O. angustus stenocephalus* are in agreement with the known pattern.

***Othius laeviusculus* Stephens, 1833**

*Material examined.* Russia, *Krasnodar Terr.*: 1 ♀, vill. Betta (about 30 km SE of Gelendzhik), 21.IV.1996, in dry dung on meadow (cattle pasture), leg. A. Solodovnikov (cSol).

For distribution and bionomics see Assing, 1997.

*Remarks.* In the Caucasus, where the northeastern border of distribution of the holomediterranean *O. laeviusculus* is extended, this species is known from a few localities only: Central Ciscaucasia (Zheleznovodsk), Western Caucasus ("Circassien"), Dagestan (no exact data about locality), and Azerbaijan (Khanlar and Gyanja) (Assing, 1997). The new record considerably extends the known range of *O. laeviusculus* in the Caucasus westwards. Noteworthy is the absence of *O. laeviusculus* in the Crimea (Gusarov, 1989), where landscapes and habitats (in the southern part of the Crimean Peninsula) are rather similar to those of Westcaucasian and Ciscaucasian foothills. The only *Othius* species found in the Crimea is *O. punctulatus* (Goeze) (Gusarov, 1989).

***Othius ziganensis* sp. n.  
(Figs 1-9)**

*Holotype.* ♂, Turkey, *Trabzon*, NW slopes of Kalkanli Dağlari, 7-10 km NE of Zigana pass, 1700-1800 m, in forest (mostly *Picea* and *Rhododendron*), litter, 9.VI.1998, leg. A. Solodovnikov (ZIN).

*Paratypes.* 5 ♂, 5 ♀, same data but 8-9.VI.1998 (ZIN, cAss, cSol).

*Description.* Measurements and ratios (range, arithmetic mean; n = 11): HL: 0.97-1.06 (1.02); HW: 0.86-0.98 (0.94); PL: 1.14-1.30 (1.25); PW: 0.88-1.03 (0.98); EL: 0.97-1.11 (1.06); EW: 0.96-1.07 (1.01); FB: 3.5-4.0 (3.7); TL: 6.5-7.8 (7.2); HL/HW: 1.05-1.14 (1.08); PL/PW: 1.24-1.3 (1.28); EL/EW: 1.01-1.08 (1.05).

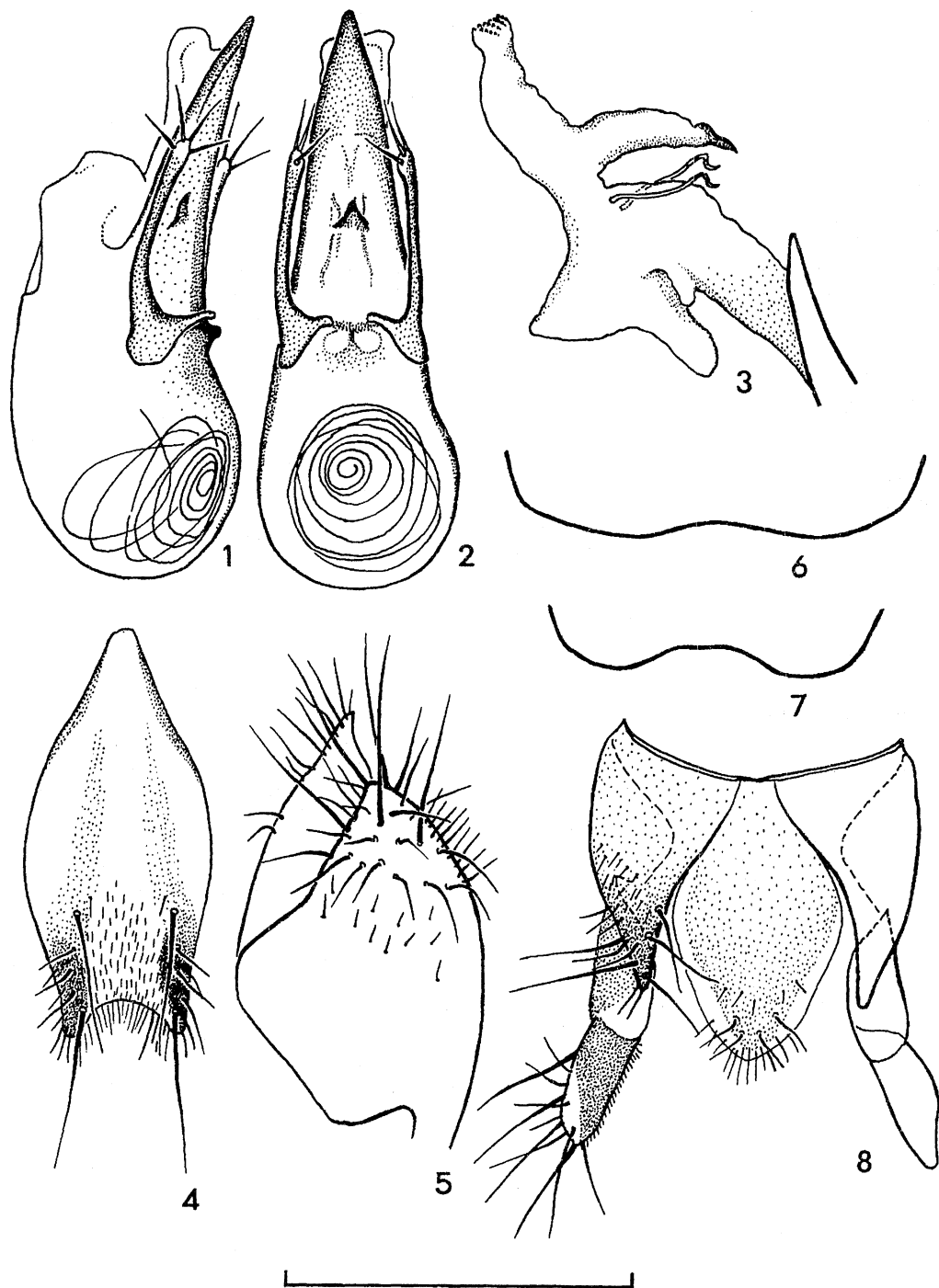
Body colour variable, reddish to brown; elytra and abdomen often darker than remainder of the body; sometimes head more or less darker than pronotum, but rarely as dark as abdomen; appendages paler, yellowish to brownish; body glossy.

Head (Fig. 9) longer than wide, slightly narrower than pronotum; temples behind the small eyes strongly widened; dorsal surface with isodiametric microsculpture; frons with 2 pairs of large punctures in more or less trapezoid arrangement, anterior punctures sometimes larger than posterior punctures and accompanied by 1-2 minute additional punctures; frontal furrows shallow but always distinct, diverging anteriorly; punctation double, with large punctures on the lateral and posterior areas and micropunctures (distinct in spots of light only), intermixed with meshes of microsculpture.

Pronotum longer than wide, with maximum width in the area of large lateral setae; dorsal surface more glossy than head, with microsculpture composed of transverse waves; waves of microsculpture oblique or longitudinal along lateral sides of pronotum; dorsal rows of setiferous pores each consisting of 3 punctures: anterior puncture close to anterior margin of pronotum; middle puncture slightly or distinctly closer to anterior margin of pronotum than to posterior puncture; posterior puncture about equidistant between middle puncture and hind margin of pronotum.

Elytra shorter than pronotum, slightly widening posteriorly, in the apical area about as wide as pronotum; punctation coarse; interspaces smooth, glossy, about as large as diameter of punctures.

Wings reduced.



Figs 1-8. *Othius ziganensis* sp. n.: 1, aedeagus in lateral view; 2, same in ventral view; 3, everted internal sac of aedeagus in lateral view; 4, male sternite 9; 5, lateral tergal sclerite 9 and tergite 10 in lateral view; 6, hind margin of male sternite 9; 7, same of male sternite 8; 8, female genital segment in dorsal view. In Figs 6-8 setae completely (6, 7) or partly (8) omitted. Scales: 0.5 mm.

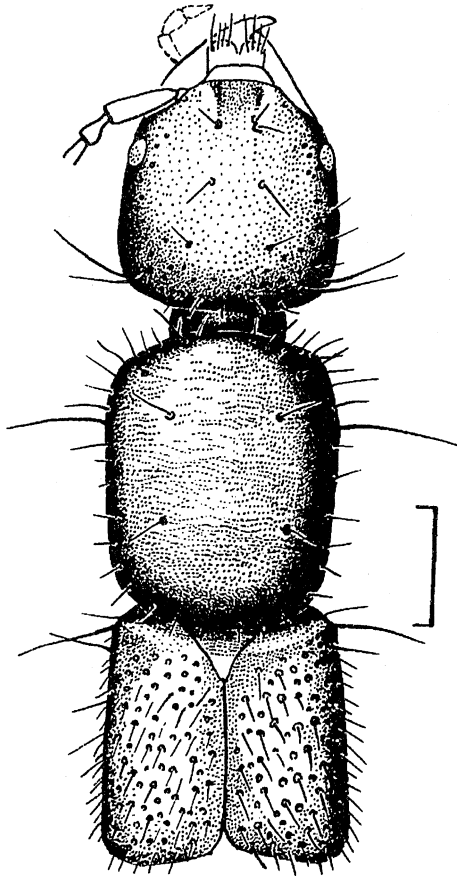


Fig. 9. *Othius ziganensis* sp. n., forebody. Scale: 0.5 mm.

Abdomen with dense transverse microsculpture, and fine sparse punctation, less glossy than elytra, iridescent; palisade fringe on hind margin of tergite 7 absent.

♂: Protarsi with dilated protarsomeres 1-4 which are distinctly more dilated than in females; sternites 7 and 8 (Figs 6 and 7) with shallow emargination on posterior margin; sternite 9 (Fig. 4) not bifid anteriorly, broadest in the middle area, narrowing anteriorly and posteriorly, with pronounced hind angles and deep emargination on posterior margin; lateral tergal sclerites of segment 9 (Fig. 5) short, not reaching hind margin of tergite 10, apically broadly obtuse; tergite 10 wide and short, apically convex with group of long setae in the middle arranged more or less symmetrically. Aedeagus (Figs 1-2) with ventral process of median lobe long and narrow, without carinae, slightly curved ventrally, with sharply pointed apex; parameres relatively long, thin, curved ventrally, each paramere with 4 long apical se-

tae; internal sac (Fig. 3) of characteristic shape, with a pair of long semitransparent structures and one additional, distinctly sclerotized, claw-shaped sclerite; flagellum long, with numerous (about 10-12) coils.

♀: Protarsi with protarsomeres 1-4 less dilated than in males; sternite 8 with weakly convex posterior margin; tergite 10 (Fig. 8) with group of long, symmetrically arranged setae in the middle part at posterior margin, without modified spine-like setae.

*Comparison.* *O. ziganensis* sp. n. is similar externally to species placed by Assing (1997) in the *O. crassus* subgroup of the *O. subuliformis* species group. Of the two species of the subgroup endemic to northern Anatolia, *O. korgei* Coiffait and *O. ponticus* Coiffait, *O. ziganensis* resembles externally *O. ponticus*. From both *O. korgei* and *O. ponticus*, *O. ziganensis* is easily distinguished by the primary and secondary sexual characters: shape (oblong median lobe with pointed apex) and structures of the internal sac of the aedeagus (pair of semitransparent structures combined with unpaired claw-shaped sclerite); morphology of the male (apically emarginate sternite 9; short and acute lateral tergal sclerites of segment 9) and female (absence of modified spine-like setae on tergite 10) genital segment.

*Remarks.* Based on the grouping of Western Palearctic *Othius* species proposed by Assing (1997), *O. ziganensis* definitely should be placed in the *O. subuliformis* species group. The external morphology of the new species (in particular, chaetotaxy, microsculpture and brachyptery), the structure of male and female genital segments, as well as the area of distribution (which is probably restricted to the eastern Pontic mountains) support a close relationship of *O. ziganensis* to the species of the *O. crassus* subgroup. The claw-shaped sclerotized structure in the internal sac of aedeagus could be a derived character state resulting from a fusion of the paired sclerotized structures characteristic of other species of the *O. crassus* subgroup.

*Derivatio nominis.* The name refers to Zigana Range, type locality of the species.

*Distribution.* Northeastern Anatolia.

*Bionomics.* *O. ziganensis* sp. n. was collected by sifting litter in a forest with predominance of *Picea* and *Rhododendron* at an altitude of 1700-1800 m, i. e. near the timber line. On examining two paratypes (male and female), V. Assing (personal communication) recorded a mature egg in the ovaries of the female specimen.

***Othius jadvigae* Roubal, 1911**

*Material examined.* Georgia, Western Abkhazia: 3 ♂, Gagrsky range, 5 km SW of Mt. Arabika, env. of vill. Gyzulya, pitfall traps 6.VII-24.VIII.1986, leg. A.G. Koval' (ZIN, cSol).

The species was described from Krasnaya Polyana and later recorded from river Psou by Assing (1997) (Psou misspelled as "Fl. Psoon").

The new record expands the known distribution about 20 km southeastwards.

***Othius serratus* Assing, 1997**

*Material examined.* Georgia: 1 ♂, Caucasus, Meskisches Geb. Leder. Reitter (ZIN); 1 ♂, Borzhomsky Nature Reserve, Baniskhevi Gorge, 12.V.1983, leg. S. Golovach; 2 ♂, Surami near Khashuri, 12.VI.1983, leg. Kurbatov (cSol).

The recent records are within the known area of distribution ("Kaukasus", "Suram", "Borzhom", "Meskisches Geb.") (Assing, 1997).

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