

**Revision of the Palearctic species of  
the genus *Ochthebius* LEACH  
(Insecta: Coleoptera: Hydraenidae)  
XXVI. A new species of *Enicocerus* STEPHENS from Iran**

A. Skale\* & M.A. Jäch\*\*

**Abstract**

*Ochthebius (Enicocerus) saboorii* sp.n. (Insecta: Coleoptera: Hydraenidae) is described from the Elburz Mts. in northern Iran. It is the second species of *Enicocerus* STEPHENS recorded from Iran.

**Key words:** Insecta, Coleoptera, Hydraenidae, *Ochthebius*, *Enicocerus*, new species, Palearctic Region, Iran.

**Zusammenfassung**

*Ochthebius (Enicocerus) saboorii* sp.n. (Insecta: Coleoptera: Hydraenidae) wird vom Elburs-Gebirge (Nord-Iran) beschrieben. Es ist dies die zweite Art der Untergattung *Enicocerus* STEPHENS, welche aus dem Iran gemeldet wird.

**Introduction**

*Ochthebius (Enicocerus) delyi* HEBAUER was recorded from the Elburz Mountains by JÄCH (1992). Until now, this was the only species of *Enicocerus* STEPHENS known from Iran. Very recently the first author was able to collect a second species in that country, which is new to science and described below.

**Material and methods**

The material studied is deposited in the following institutions and private collections:

- |     |  |
|-----|--|
| CFS | Coll. Dirk Frenzel, Sonneberg  |
| CSH | Coll. Andre Skale, Hof/Saale   |
| NME | Naturkundemuseum Erfurt  |
| NMW | Naturhistorisches Museum Wien  |
| ZMK | Jalal Afshar Zoological Museum, Department of Plant Protection, College of Agriculture,<br>University of Tehran, Karaj, Iran |

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Andre Skale, Blücherstraße 46, D-95030 Hof/Saale, Germany. – [andre.skale@online.de](mailto:andre.skale@online.de)

Dr. Manfred A. Jäch, Naturhistorisches Museum, Burgring 7, A-1010 Wien, Austria. – [manfred.jaech@nhm-wien.ac.at](mailto:manfred.jaech@nhm-wien.ac.at)



Fig. 1: Habitat of *Ochthebius (Enicocerus) saboorii*; waterfall between Javaherdeh and Ramsar, Mazandaran Province, northern Iran.

### *Ochthebius (Enicocerus) saboorii* sp.n.

**Type Locality:** Stream between Abbasabad and Kalardasht, 36°34'66"N, 51°09'72"E, Elburz Mountains, Mazandaran Province, northern Iran.

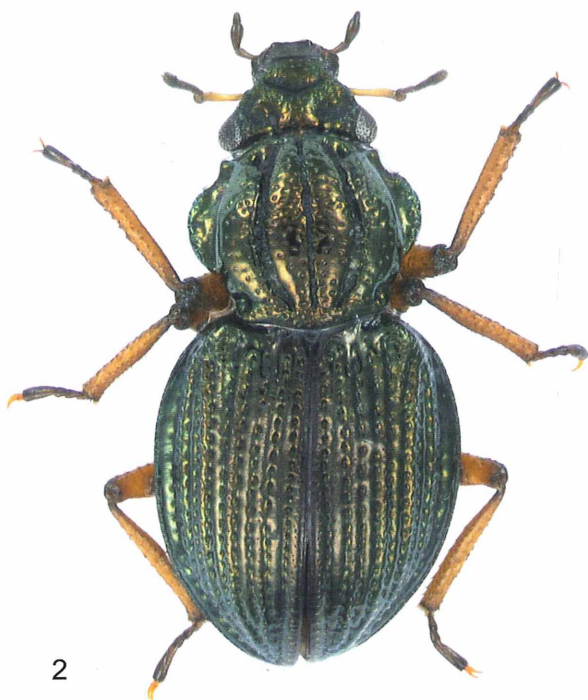
**TYPE MATERIAL:** **Holotype** ♂ (NMW): "N-Iran, Prov. Mazandaran, N- Elburz, Abbasabad-Kalardasht 36°34'66"N, 51°09'72"E, 1030m, 05.06.2008, leg. A. Skale (25)" Secondary sexual characters very strongly pronounced. **Paratypes:** 10 ♂♂, 15 ♀♀ (CSH: 7 ♂♂, 12 ♀♀, NME: 1 ♂, 1 ♀, NMW: 1 ♂, 1 ♀, ZMK: 1 ♂, 1 ♀): same locality data as holotype; 1 ♂, 4 ♀♀ (CSH): "N-Iran, Prov. Mazandaran, N- Elburz, Dohe-sar-Road, 550m 36°35'11"N, 50°47'67"E, 01.06.2008, leg.A.Skale (17)"; 4 ♂♂, 5 ♀♀ (CFS): "N-Iran, Prov.Mazandaran N-Elburz,Dohe-sar-Road, 36.35.11N, 50.47.67E, 550m, 01.06.2008 leg. Dirk Frenzel"; 1 ♂, 4 ♀♀ (CSH): "N-Iran, Prov. Mazandaran, NW-Elburz, Javaherdeh-Ramsar, 36°54'27"N, 50°36'28"E, 250m, 02.06.2008, leg. A. Skale (20)"

Figs. 2–3: Habitus of *Ochthebius* (*Enicocerus*) *saboorii*, two males from the type locality, demonstrating strong variation of secondary sexual characters (allometry).

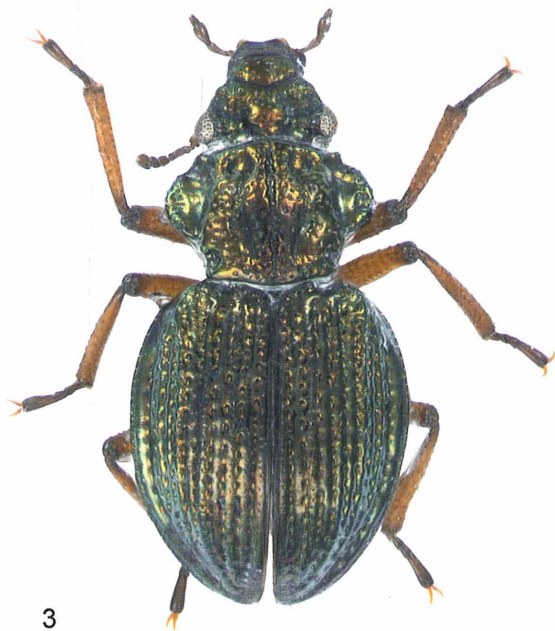
Additional material: 1 ♀ (CSH): "IRAN, Prov Mazandaran (IR08-24) Ramsar County. Elburz Mts., N-Slope, Eshkatechal, small stream, sifted, 36°51'14.2"N, 50°33'22"E, 1055m, 06.VI.2008, leg. A. Pütz"

**Description:** Habitus as in Figs. 2–3. Body length: 1.8–2.1 mm. Colouration: dorsal surface black, with strong metallic greenish-coppery lustre; body appendages yellowish brown; apical half of antennae, palpi, knees and tarsi (especially apical part of each segment) dark brown. Upper surface more or less shining and glabrous, very sparsely and inconspicuously covered with short whitish adpressed setae; ventral surface, except ventrite VI and pygidial sclerite, densely covered with short silvery pubescence.

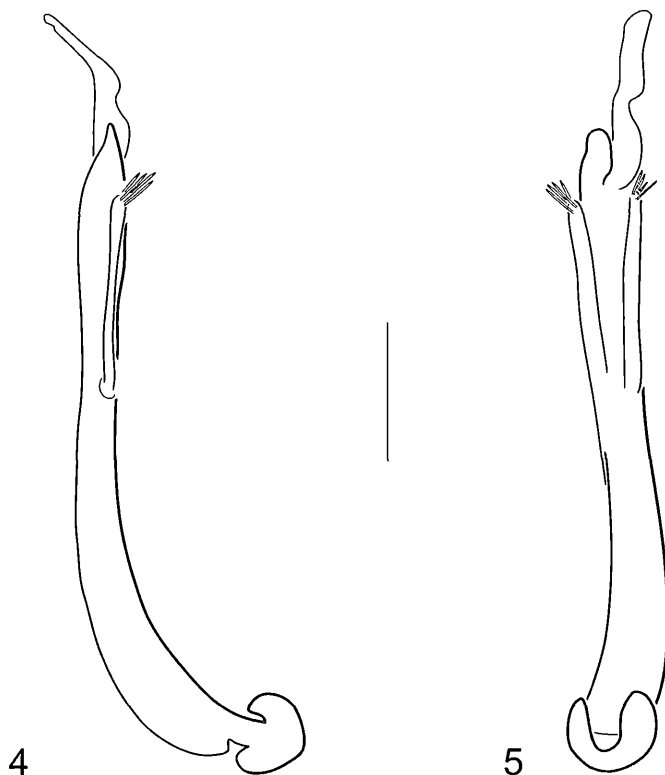
Labrum transverse, trapezoidal, sparsely punctate, glabrous; anterior margin shallowly emarginate, anterior lobes rounded, slightly thickened and more or less noticeably upturned anteriorly. Clypeus usually glabrous and very sparsely punctate, rarely more or less comprehensively microreticulate, especially near posterior or lateral margins. Fronto-clypeal suture distinctly impressed, more or less strongly arched, or V-shaped, not reaching lateral margin. Frons glabrous or more or less distinctly punctate and/or microreticulate; ocular grooves subcircular, deeply impressed. Ocelli very close to inner margin of eyes. Eyes well-developed.



2



3



Figs. 4–5: *Ochthebius (Enicocerus) saboorii*; 4) aedeagus, lateral view; 5) same, ventral view. Scale bar: 0.1 mm.

Pronotum sexually dimorphic (Figs. 2–3). In females and smaller males (Fig. 3) the pronotum is distinctly heart-shaped, wider than long, widest near anterior 0.35; anterior margin with well developed postocular tooth; posterior margin rather evenly arched; disc more or less distinctly convex, moderately or densely punctate, admedian foveae strongly impressed, median sulcus usually distinctly impressed, not reaching anterior and posterior margin; lateral margin usually widely explanate, forming well-developed semi-circular, partly glabrous ears, punctation confined to lateral rim. In large males the pronotum deviates considerably (see below and Fig. 2).

Elytra oval; strongly convex in cross section; apically subacuminate, with 10 regular, very strongly impressed striae; intervals more or less strongly convex, especially intervals 5, 7, 9; disc with more or less distinct, transverse depression near anterior 0.3. Lateral gutter comparatively widely explanate. Epipleura more or less reaching elytral apex.

Legs slender, claws comparatively short.

Sexual dimorphism: As in *Ochthebius anatolicus* JANSSENS, *O. granulatus* MULSANT, and several other species the pronotum can be extremely vaulted (as if inflated) in large males (allometry), with anterior and posterior admedian foveae connected to form a nar-

row arched longitudinal sulcus; lateral margin ("ears") rather narrow (Fig. 2). In smaller males, the pronotum is more or less indistinguishable from the pronotum of females (Fig. 3).

**Aedeagus** (Figs. 4–5): Main piece (PL: ca. 0.5 mm) elongate and slender, more or less straight, basally distinctly curved (lateral view), tapering apically. Distal lobe elongate, distinctly tapering toward apex, slightly curved dorsad, ventral side strongly emarginate near middle. Parameres short, more or less symmetrical, adjoining main piece, inserted ventrally near apical 0.4; apices not widened, with a group of 4–5 moderately long, well developed bristles.

**Differential Diagnosis:** Genitally, this species can be distinguished from all known species of *Enicocerus* by the shape of the distal lobe, which is rather long, and more or less strongly emarginate ventrally.

Due to the variability of certain external characters (e.g. body size, punctuation, shape of labrum, colouration of legs) *O. anatolicus*, known from Georgia and Turkey, can hardly be distinguished from the new species without genital extraction. The aedeagal distal lobe of the new species is distinctly longer than in *O. anatolicus*.

*Ochthebius delyi*, the only other Iranian species of *Enicocerus*, differs from the new species in several characters: labrum more distinctly excised anteriorly, its anterior corners usually produced, acute; pronotum never glabrous, pronotal disc always less strongly vaulted, impressions shallower, pronotal ears less wide, semi-oval; elytral gutter narrower; legs more robust, claws comparatively larger. In lateral view, the aedeagus of *O. delyi* can be distinguished easily by the strongly recurved distal lobe (see JÄCH 1992: Fig. 10).

**Phylogenetic Position:** According to the external and aedeagal morphology, the new species is obviously most closely related with *O. anatolicus*. Possible synapomorphies are the widely explanate, partly glabrous pronotal ears and the conspicuous ventral emargination of the aedeagal distal lobe.

The Himalayan-East Asian species, which have hitherto been included in the subgenus *Enicocerus* (see JÄCH 2004), very probably do not form a monophyletic lineage with the European-West Asian species. The cup-shaped second antennal segment, the short post-ocular setae with brush-like tips and the position of the ocelli (almost contiguous with the eyes) are apomorphies lacking in the Himalayan-East Asian species.

**Habitat Note:** All specimens were collected on rocks in the wet splash zone a little above the water line of small streams, and in the hygropetric zone of a waterfall (Fig. 1).

**Distribution:** Known only from northern Iran, Mazandaran Province.

**Etymology:** Named for Prof. Alireza Saboori, who accompanied the first author during his excursions in northern Iran in May/June 2008.

#### Acknowledgements

We are very much obliged to Prof. Alireza Saboori, UTCAN (University College of Agriculture & Natural Resources, University of Tehran, Dept. of Plant Protection, Karaj, Iran), for his invaluable support, especially during the excursion with the first author.

Thanks are due to Dr. H. Schillhammer (NMW) for the habitus photographs.

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