A new genus and a species from Turkey, *Isparta felei* n.gen. n.sp.  
(Gastropoda: Truncatelloidea: Hydrobiidae)

MEHMET ZEKI YILDIRIM¹, SEVAL BAHADIR KOCA², MUSTAFA EMRE GÜRLEK³, PETER GLÖER⁴

¹ Mehmet Akif Ersoy University, Bucak School of Health, Burdur, Turkey  
² Süleyman Demirel University, Fisheries Faculty, Isparta, Turkey  
³ Mehmet Akif Ersoy University, Vocational School of Health Services, Burdur, Turkey  
⁴ Biodiversity Research Laboratory, Schulstraße 3, D-25491 Heilingen, Germany  

Corresponding author: Mustafa Emre Gürlek; e-mail: malacoturk@gmail.com

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Abstract
A new hydrobiid genus and species *Isparta felei* n. gen. n. sp. is described from Isparta province of Turkey. Samples were collected in 2017. The morphology of the shell, male and female genital tract of the new species are described. Moreover the similarity and distinctness with the genus *Pseudohoratia* are also given.

Key words: New genus, hydrobiidae, Isparta, lakes region.

Introduction

Hydrobiids are known as small members of Prosobranch gastropods. They are difficult to classify because of their small size and weak shell characters. They are adapted to live in fresh, brackish water and marine habitats. They have epifaunal character and feed on other surface of their habitats (Ponder 1984). Up to now, in Turkey 20 genera have been identified belonging to the Hydrobiidae family (Yıldırım 1999; Koşal Şahin et al. 2012; Glöer & Georgiev 2012). Lakes region is situated in South-Western of Turkey. Despite the fact that studied started on 1960s the gastropod fauna of this region is poorly studied (Yıldırım 1999; Kebapçı & Yıldırım 2010).

In this study, based on the anatomy and morphology, a new hydrobiid genus (*Isparta* n.gen.) and species (*Isparta felei* n.sp.) are described from Isparta province, Turkey.

Material and Methods

Samples were collected from Fele and Büyükgökçeli village of Isparta province in 2017 (Figure 1,2). They were collected using an aquatic hand-scoop. After sampling, snails were preserved in plastic tubes in 80% ethanol. Dissections and measurements of the species were carried out using a stereo microscope (Olympus
SZX7) and photographs were taken with digital camera system (Olympus DP26). All the material (paratypes and holotypes) of the species is stored in Zoological Museum of Hacettepe University (HUZOM) and others are deposited collection of the third author (coll. Gürlek, Mehmet Akif Ersoy University, Turkey).


Figure 1. The sampling sites of the *Isparta felei* n. gen. n.sp. (1. spring in the Fele village, 2. spring in the Büyükgökçeli village)
Results

Family: Hydrobiidae Stimpson, 1865

Isparta n. gen.

Diagnosis: The shells are yellowish horn colored and conic. Whorls are regularly convex with a deep suture. The umbilicus is closed. Head and tentacles are pigmented. Penis is slightly pigmented and has a prominent protrusion lateral. There is no bursa copulatrix in female genitalia. It has relatively thick oviduct and receptaculum seminis (rs1).

Type species: Isparta felei n.sp.

Isparta felei n.sp.

Description: The yellowish horn-colored shell is conic and consist of 3-3½ whorls, which are regularly convex with a deep suture. The apex is slightly acute, umbilicus closed, the aperture roundish oval shaped. Head and tentacles are pigmented. Shell height: 0.87 – 1.56 mm, width: 0.97 – 1.44 mm (Table 1). Penis slightly pigmented, conic, with a marked lateral protrusion. There is no bursa copulatrix, the oviduct is relatively thick and there is a receptaculum seminis (rs1) present (Figure 3).

Table 1. Dimensions of Isparta felei n.gen. n.sp. n:30

<table>
<thead>
<tr>
<th>(mm)</th>
<th>Height of shell</th>
<th>Width of shell</th>
<th>Height of aperture</th>
<th>Width of aperture</th>
<th>HS / WS</th>
<th>HA / WA</th>
</tr>
</thead>
<tbody>
<tr>
<td>min</td>
<td>0,87</td>
<td>0,97</td>
<td>0,59</td>
<td>0,56</td>
<td>0,89</td>
<td>1,05</td>
</tr>
<tr>
<td>max</td>
<td>1,56</td>
<td>1,44</td>
<td>0,84</td>
<td>0,84</td>
<td>1,08</td>
<td>1</td>
</tr>
<tr>
<td>average</td>
<td>1,23±0,037</td>
<td>1,12±0,028</td>
<td>0,69±0,017</td>
<td>0,63±0,017</td>
<td>1,09±1,309</td>
<td>1,1±0,98</td>
</tr>
</tbody>
</table>
Remarks: Male genital system of the new taxon resembles *Pseudohoratia*; however there is no bursa copulatrix in *Isparta* n.gen. as it is in *Pseudohoratia*. In addition shells of *Pseudohoratia* have a wide umbilicus, while *Isparta* n.gen. has not.

Holotype: SH 1.2 mm, SW 1.11 mm, AH 0.65 mm AW 0.6 mm, in coll. HUZOM M1111.

Paratypes: 5 specimens HUZOM M1112, 5 specimens from type locality in coll. Gürlek.

Additional material examined: 16 specimens from the type locality were dissected.

Type locality: Isparta province, small spring in the Fele village, 38°00′13.58″N, 31°28′21.24″E, 1251 m a.s.l., 8.8.2017.

Other localities: Isparta Province, spring in Büyükgökçeli village.

Etymology: Named after the province where the genus and the species has been found (type locality). Isparta is a city, Fele is a village in SW of Turkey.

Habitat: Spring in the Fele village is small with a stony bottom and outflow (Figure 2). Spring in the Büyükgökçeli village is in the recreational park (picnic area) and samples were collected in the outflow with the stony bottom. Both stations are under the anthropogenic impact.

Associated species: *Isparta felei* n.sp. was found accompanied with *Theodoxus anatolicus* at the both studied localities.

Figure 3. *Isparta felei* n. gen. n. sp. A: shell of holotype, B: penis.
Discussion

*Isparta* new. gen. is similar in terms of penis morphology and presence of one receptaculum seminis to *Pseudohoratia*. On the other hand it clearly differs from the later genus in the lacking bursa copulatrix and the umbilicus is closed.

During our survey we found two recent populations of *Isparta felei* n. gen. n. sp.: one collected in the spring situated in the Fele village and the another one discovered in the spring located in Büyükgökçeli village. However, probably more intensive studies will lead to new findings of this endemic genus.

References


