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The *Islamia* spp. from Greece (Gastropoda: Hydrobiidae) with the description of two new species

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Abstract

The hydrobiid genus *Islamia* Radoman, 1973 (Gastropoda: Hydrobiidae) comprises 47 species known from the Mediterranean region of which most are distributed in the west and central part, whereas 11 species are known from the Balkans. In this article we described two new *Islamia* species from Greece. The type localities of four *Islamia* species hitherto known from Greece are presented on a map.

Key words: *Islamia*, new species, Greece, taxonomy.

Introduction

From Greece only three valvatoïd genera, i.e., *Pseudoislamia* Radoman 1978, *Islamia* Radoman 1973 and *Daphniola* Radoman 1973 are known (Bank *et al.* 2017). The aperture of *Pseudoislamia* is not circular, it has a convex outer lip and a concave inner lip (Radoman 1983). The umbilicus of *Daphniola* is semi-opened while it is wide in *Islamia* (Radoman 1983, Szarowska 2006). Most of the 47 known *Islamia* species occur in Spain and Italy, 5 in Bosnia and Hercegovina, one in Montenegro and 3 species in Greece (two of them in Continental Greece). From Turkey, the eastern distribution border of *Islamia*, three species are known. There are possibly some more *Islamia* spp. living in Greece, which have been described under the genera *Horatia* (see Gittenberger 1982) or *Hauffenia* (see Reischütz *et al.* 2008).

This paper is intended to describe two new *Islamia* species from Greece.

Material and methods

The snails have been collected by Robert Reuselaars and fixed in 80% ethanol. The specimens were collected with a sieve from waterplants.

The measurements of the shells were carried out using a stereo microscope (ZEISS) with an eyepiece micrometer; the photographs were made with a digital camera system (Leica R8). The type material is

stored in RMNH (Rijksmuseum van Natuurlijke Historie Naturalis Leiden, The Netherlands) and in the collections of Robert Reuselaars (both species) and Peter Glöer (only *Islamia papavasileioui* n. sp.).

Study Area

In this article we present our findings on the freshwater genus *Islamia* from Greece. As shown on the map, the distribution of this genus is concentrated in southern continental Greece and one species in the southern Peloponnesos. It seems to be absent in the other parts of Greece. On many fieldtrips in Greece in the past 20 years (e.g., Glöer & Hirschfelder 2019, Glöer *et al.* 2018, Glöer & Reuselaars 2020), no other *Islamia* sp. were discovered in those parts.



Figure 1-3. 1: The type localities of *Islamia* spp. in continental Greece. 1.1: *Islamia graeca* Radoman, 1973, 1.2: *Islamia trichoniana* Radoman, 1978, 1.3: *Islamia papavasileioui* n. sp., 1.4: *I. skalaensis* n. sp. 2: outflow of the spring in Kryoneri, the difficult to access type locality of *I. papavasileioui* n. sp. is behind the reed bed, 3: Vasilopotamos river, near the bridge west of Skala, type locality of *I. skalaensis* n. sp.

Results

Genus *Islamia* Radoman, 1973

Type species: *Hydrobia valvataeformis* Möllendorf, 1873

Islamia papavasileioui n. sp. [fig. 4.1]

<https://zoobank.org/urn:lsid:zoobank.org:act:7FC616EF-9A48-480D-86B9-DDA176795DE8>

Material examined: Holotype (RMNH.MOL.347632) and 27 paratypes from type locality.

Holotype: 0.8 mm high, 1.0 mm broad from type locality.

Paratypes: 2 ex. (RMNH.MOL. 347633), 3 ex. in coll. Peter Glöer, 22 ex. in coll. Robert Reuselaars (no. 1052) from type locality.

Locus typicus: Spring in Kryoneri, Greece, 38°20'40.73557" N 21°35'50.22161" E, 08.06.2016 Robert Reuselaars leg.

Habitat: The tiny specimen were collected with a sieve from waterplants close to the high horizontal crack in the base of the high vertical rock wall east of the town.

Additional information about type locality: During a secondary visit in 2019, in an attempt to sample more material of two other species of which the status is uncertain, the type locality was almost impossible to access due to the collapse of steel bridge along the rock wall.

Etymology: Named after Kyriakos Papavasileiou who accompanied Robert Reuselaars on his several trips in Greece.

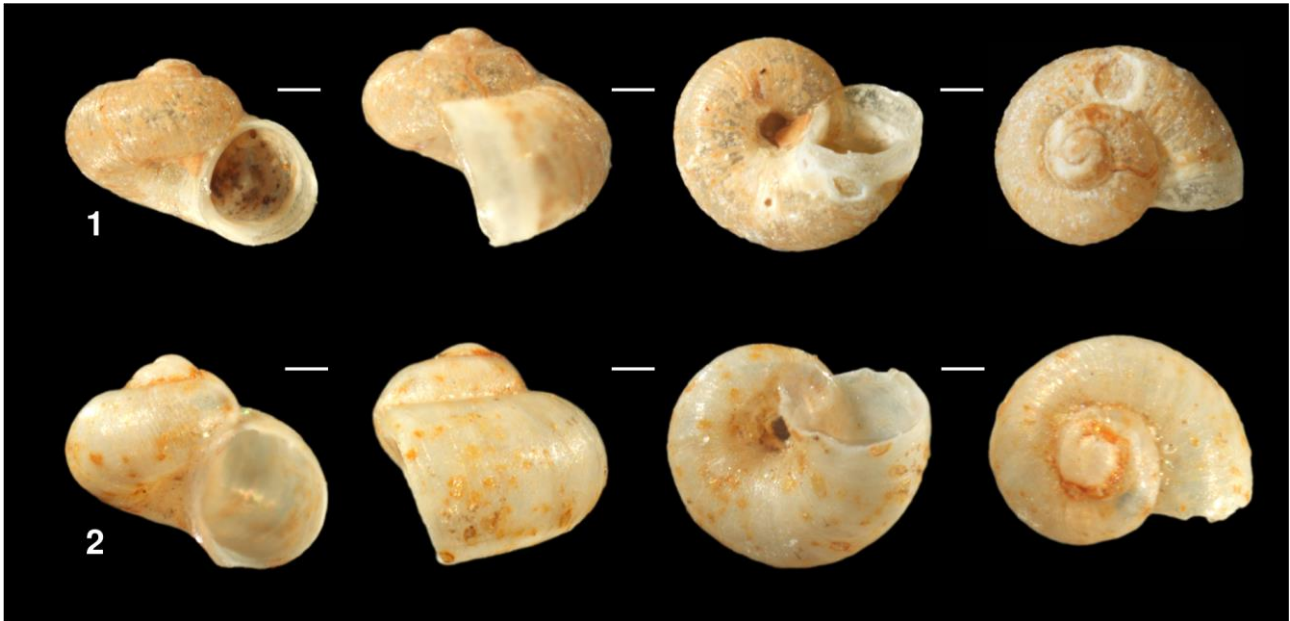


Figure 4. 1: *Islamia papavasileioui* n. sp., spring in Kryoneri, Greece. 2: *Islamia skalaensis* n. sp. Vasilopotamos river near bridge over the river, west of Skala, Peloponnesos, Greece.

Description: The tiny shell is valvatoid with 3-3.5 slightly convex whorls with a deep suture. The aperture is circular, the peristome is sharp, the umbilicus is wide, not covered by the body whorl. The spire is small and short. The ratio of shell height to shell width is 0.8. The shell is 0.8 mm high and 1.0 mm broad.

Differentiating characters: The shell of *Islamia graeca* is more globular with a ratio of shell height to shell width of 1.0, while the spire of *Islamia trichoniana* is less high than in *Islamia papavasileioui* n. sp. In *Islamia skalaensis* n. sp. the umbilicus is partly covered by the body whorl.

Distribution: Greece; only known from type locality.

Islamia skalaensis n. sp. [fig. 4.2]

<https://zoobank.org/urn:lsid:zoobank.org:act:DC74C663-2DD9-44CA-A0F7-C0C90308C243>

Material examined: Holotype (RMNH.MOL.347634) and 5 paratypes from type locality.

Holotype: 0.85 mm high, 1.05 mm broad from type locality.

Paratypes: 2 ex. (RMNH.MOL.347635), 3 ex. in coll. Robert Reuselaars (no. 743) from type locality.

Locus typicus: Near the bridge over the Vasilopotamos river, west of Skala, Peloponnesos, Greece, 36°50'36.80320" N 22° 38'48.62719" E, 19.09.2010 Robert Reuselaars leg.

Habitat: The species was collected amongst waterplants.

Etymology: Named after the nearby town Skala.

Description: The tiny shell is valvatoid with 2.5-3.0 slightly convex whorls with a deep suture. The aperture is circular, the peristome is sharp. The umbilicus is open, partly covered by the body whorl. The spire is small. The ratio of shell height to shell width is 0.8. The shell is 0.85 mm high and 1.05 mm broad.

Differentiating characters: The shell of *Islamia graeca* is more globular having a ratio of shell height to shell width of 1.0, while the spire of *I. trichoniana* is less high than in *I. skalaensis* n. sp. In *Islamia papavasileioui* n. sp. the umbilicus is not covered by the body whorl.

Distribution: Greece; only known from type locality.

Conservation: Of the *Islamia* spp. described in this article, we consider the both species as endangered because they live in one spring only.

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