

Five new records of terrestrial gastropods (Mollusca: Gastropoda) for Bulgarian fauna

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Abstract. In the course of different collecting trips, five gastropod species were newly recorded for Bulgarian fauna. The position of the localities is given in UTM code (UTM Zones, 34, 35). The materials are deposited in the authors' collections and in the National Museum of Natural History (Sofia).

Key words: Gastropoda, first records, Bulgaria

Introduction

The terrestrial gastropods were often found as empty shells and this could be an indication that the species are real inhabitants of the area. At the same time, by river valleys and sea routes, shells of various foreign species have penetrated Bulgarian habitats. For the moment, 4 species have been found at the Bulgarian sea coast and river banks only as shells, and we consider these as not being real members of our fauna - *Chondrus tournefortianus* (Férussac, 1821), *Jamina squalina* (Rossmässler, 1848), *Rumina decolata* (Linnaeus, 1758), *Poiretia algira* (Bruguière, 1972) (DAMYANOV & LIKHAREV, 1975). Such finds could be an interesting source for information about the process of colonization of the neighbouring localities (as not only the shells but also living specimens could be transported by water), but also as a good indication for the composition of the local fauna (some of the species occur with scarce populations and often could be found predominantly as shells) or for the fauna of the river's upstream valley.

Material and methods

For collecting of the materials, the hand-collecting and soil-sifting methods were used. The materials were collected in forests, rocks and floating debris (branches, leafs and floating debris). The morphological examinations were carried out with a stereo-microscope. Specimens of the new taxa are deposited in the following collections: National Museum of Natural History in Sofia (NMNHS), collection of P. Subai (coll. Subai) and the collection of I. Dedov (coll. Dedov).

Results and discussion

List of species

Family Orculidae

1. *Orculella ignorata* Hausdorf, 1996

Material examined: UTM: NG 45, Strandzha Mts., 6 km N of Malko Tarnovo, 400m a.s.l., floating debris, 08.05.2008, leg. Dedov & Subai, coll. Subai 22167/1spm.

Distribution: *O. ignorata* occurs on the Greek mainland, Turkey, Dodecanese and North Aegean Islands (BANK, 2004).

Family Pyramidulidae

2. *Pyramidula cephalonica* (Westerlund, 1898)

Material examined: UTM: GL 28, Slavyanka mountains, Hambar Dere gorge, ca. 3 km SW of Paril, 973-1005m a.s.l., in leaf litter and at limestone rocks, 29.5.2007, leg. Dedov & Subai, coll. Subai 23311/8spm. +12(juv.); leg. Dedov & Simov, coll. Dedov 1428/ 17spm.

UTM: GN 08, Ledenika cave, Vratsa distr., at limestone rocks beside cave, 22.5.2007, leg. Dedov & Subai, coll. Subai 23353/5spm.+1(juv.), coll. Dedov 1575/numerous, NMNHS/5spm.

UTM: KH 68, wood at the NE-border of Karlukovo, S-bank of the river Iskar, at limestone rocks beside cave, leg. Dedov & Subai, 31.5.2007, coll. Subai /numerous.

UTM LH 67, N-border of Emen, NW of Veliko Tarnovo, 300m a.s.l., at limestone rocks beside highway, 27.5.2007, leg. Dedov & Subai, coll. Subai 23158/6spm. +8(juv), coll. Dedov 1574/numerous, NMNHS/5spm.

UTM: LH 75, wood beside cave of Bacho Kiro, 6 km SW of Dryanovo, at limestone rocks, 26.5.2007, leg. Dedov & Subai, coll. Subai 23417/24spm.+11(juv.), coll. Dedov 1576/numerous.

UTM LH 86, S-border of river Yantra, in Veliko Tarnovo, 300m a.s.l., at limestone rocks beside railway, 27.5.2007, leg. Dedov & Subai, coll. Subai 23394/8+22(juv.)

UTM: LH 87, wood beside Preobrazhenski Monastery, Veliko Tarnovo distr., at limestone rocks, 26.5.2007, leg. Dedov & Subai, coll. Subai 23232/40spm.+33(juv.), coll. Dedov 1577/numerous, NMNHS/5spm.

UTM MH 42, 3.5 km NE from Sliven, towards Ichera, 440m a.s.l., at limestone rocks, 06.05.2008, leg. Dedov & Subai, coll. Subai 22218/10spm.+15(juv.), coll. Dedov/1spm.+3(juv.)

UTM NG 45, Strandzha Mts., 6 km N of Malko Tarnovo vill., 400m a.s.l., floating debris, 08.05.2008, leg. Dedov & Subai, coll. Subai 22163/4spm.+2(juv.)

Distribution: *P. cephalonica* occurs mainly on the Western Balkans - Albania, Bosnia and Herzegovina, Croatia, Italy, Macedonia, as well as on the Greek mainland and North Aegean Islands (BANK, 2004).

Note: DEDOV (2007) refers all finds of *Pyramidula* from Bulgaria to *Pyramidula pusilla* (Vallot, 1801), but according to new and re-estimated data, part of these belong to *P. cephalonica*. *Pyramidula pusilla* is a common species that occurs on the whole Balkans and in the main part of Europe, while *P. cephalonica* is a more southern species and is rare in Northern Bulgaria. Both species occur together in some of the Bulgarian localities (LH 75, wood beside cave of Bacho Kiro; LH 87, wood beside Preobrazhenski Monastery). With the new finds, the species of genus *Pyramidula* from Bulgaria are now two: *P. cephalonica* and *P. pusilla*.

Family Clausiliidae

3. *Clausilia pumila* Pfeiffer, 1828

Material examined: UTM: FP 45, Bulgaria, vill. Darzhanitsa, Archar river, 80m a.s.l., under stones, coll. Dedov 1104/1spm., leg. Lazarov, 2006

Distribution: *C. pumila* occurs mainly in Central and Western Europe, as well as on the Balkans - Bosnia and Herzegovina, Croatia, Serbia, Kosovo, Voivodina, Montenegro (BANK 2004).

Note: So far the occurrence of *C. pumila* in Bulgaria was doubtful. According to JAECKEL et al. (1957), cited by DAMYANOV & LIKHAREV (1975), the species occurs in Bulgaria, but no localities or finds are provided by these publications. This announcement of a living specimen is the first for Bulgaria and it is the southernmost known locality of the species at present.

Family Zonitidae

4. *Aegopinella epipedostoma iuncta* Hudec, 1964

Material examined: UTM: LH 70, FP 55, vill. Archar, S of Vidin, 140m a.s.l., floating debris at the river Archar, 05.05.2008, leg. Subai, coll. Subai 22248/1add.

Distribution: *A. epipedostoma iuncta* occurs mainly in Central and Western Europe, as well as in Croatia and Romania (BANK, 2004).

Family Hygromiidae

5. *Xerolenta obvia pappi* (Schütt, 1962)

Material examined: UTM: NG 45, Strandzha Mts., 6 km N of Malko Tarnovo vill., 400m a.s.l., floating debris, 08.05.2008, leg. Dedov & Subai, coll. Subai, 22189/2juv.

Distribution: *X. obvia pappi* occurs in the Greek mainland and Turkey (BANK, 2004).

In the course of different collecting trips five gastropod species were newly recorded for the Bulgarian fauna. The real inhabitants of the Bulgarian fauna are *P. cephalonica* and *C. pumila*, while the species that were found in the floating debris as empty shells (*O. ignorata*, *A. epipedostoma iuncta*, *X. obvia pappi*) we consider as uncertain and their occurrence in the Bulgarian fauna should be confirmed by finding living specimens.

From the species, found as shells, the more likely inhabitant of the Bulgarian fauna is *X. obvia pappi*. This species could be expected within the south-eastern borders of Bulgaria. The specimen of *O. ignorata* most probably originated from Turkey and penetrated in Bulgaria as an empty shell with the stream of Veleka river. The shell of *A. epipedostoma iuncta* was found in the village Archar, near the bridge of Archar river, approximately 500 m from the Danube. This species lives in Romania and it is possible that some specimens could occur in the border area of Bulgaria.

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Пет нови вида сухоземни охлюви (Mollusca: Gastropoda) за фауната на България

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(Резюме)

След няколко научни експедиции в България са намерени 5 вида сухоземни охлюви, нови за фауната на страната. Два от видовете са открити живи (*P. cephalonica* и *C. pumila*), докато останалите 3 – като черупки (*O. ignorata*, *A. epipedostoma iuncta*, *X. obvia pappi*).

От видовете, намерени като черупки, най-голяма вероятност да обитава България има за подвида *X. obvia pappi*. Черупката от *O. ignorata* вероятно е проникнала по течението на река Велека. Черупката на *A. epipedostoma iuncta* е намерена на 500 m река Дунав. Видът се среща в Румъния и е много вероятно отделни екземпляри да навлизат и в България, в близост до северната граница.