

Two terrestrial gastropod species new to the fauna of the Republic of North Macedonia

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Abstract

Data on two newly recorded gastropod species for the Macedonian fauna – *Columella edentula* (Draparnaud, 1805) and *Vertigo (Vertigo) alpestris* Alder, 1838 are presented in this article. Both species were sampled in the Jakupica Mountain, Central Macedonia via soil sampling procedure. The species *Columella edentula* was also sampled from the Maleshevski Mountains, eastern North Macedonia.

Key words: *Columella edentula*, Jakupica Mountain, Maleshevski Mountains, *Vertigo (Vertigo) alpestris*

Introduction

In 2006 the first attempt for summarizing list of Macedonian terrestrial gastropod fauna was published (Stankovic et al. 2006). According to this list 232 taxa, 189 species and 43 subspecies of terrestrial snails and slugs are known for the country. Bank (2011) gave much actual taxonomy and corrected the number of taxa to 176 (see also Hristovski et al. 2015). In the years thereafter five terrestrial gastropod species new for science were described from Macedonia: *Euxinella alpinella* Dedov, 2012, *Vestia lazarovii* Dedov, 2012, *Gyalina nautilopsis* Dedov and Subai, 2012, *Gyalina hristovski* Dedov, 2015, *Cochlostoma (Lovcenia) jakschae* Zallot, Fehér and Gittenberger, 2018 (Dedov 2012, Dedov and Subai 2012, Dedov 2015, Zallot, Fehér and Gittenberger 2018). Two species, reported as a new for Macedonian fauna, were not included in the list of Bank (Dedov and Hristovski 2010: *Lehmania nyctelia* (Bourguignat, 1861); Stojkoska and Stefanovska 2017: *Arianta arbustorum* (Linnaeus, 1758)). In total, 183 terrestrial gastropod species and subspecies are known for the fauna of the Republic of North Macedonia.

Material and methods

The materials were collected during three collecting trips in the territory of Republic of North Macedonia in 2009, 2017 and 2019 years in locality:

North Macedonia, Jakupica (=Mokra) Mountain, springs of the river Babuna, *Fagus* forest, on limestone

base, N41.68775 E21.41850, 1324 m, 19.06.2009 and 11.07.2017, leg. I. Dedov.

North Macedonia, Maleshevski Mountains, *Fagus*, N41.77325 E22.94574, 1390 m, 27.08.2019, leg. M. Komnenov.

For collecting of the materials soil-sifting procedure was used (Antonova et al. 2015). The materials are housed in the Institute of Biodiversity and Ecosystem Research, Bulgarian Academy of Sciences (IBER-BAN 10772, 10784 and 10907).

Results and discussion

Two micro-gastropod species were recorded from the Central part of the Republic of North Macedonia, Jakupica Mountains, the springs of Babuna river – *Columella edentula* (Fig. 1) and *Vertigo alpestris* (Fig. 2) and one – *C. edentula* from Malashevski Mountains. From Jakupica both species were collected from very same spots with not many specimens: *C. edentula*: 9 empty shells (2009/6 spm, 2017/3 spm.); *V. alpestris*: 4 empty shells (2009/2 spm, 2017/2 spm.). From Malashevski Mountains – 6 alive specimens (2019/6 spm).

External characters and the size of both species fit perfectly to the already known characters of *C. edentula* and *V. alpestris* (see Welter-Schultes 2012).

Twenty-one additional species were found as accompanying fauna from the locality of Jakupica Mountains: *Acanthinula aculeata* (O. F. Muller, 1774), *Aegopinella cf. minor* (Stabile, 1864), *Aegopinella cf. pura* (Alder, 1830), *Alinda (Alinda) biplicata* (Montagu,

1803), *Alinda (Pseudalinda) nordsiecki* Dedov and Neubert 2002, *Chondrina arcadica clienta* (Westerlund, 1883), *Cochlodina laminata* (Montagu, 1803), *Daudebardia (Daudebardia) rufa* (Draparnaud, 1805), *Euconulus (Euconulus) fulvus* (O. F. Müller, 1774), *Gittenbergia sororcula* (Benoit, 1859), Limacidae – shells, *Merdigera obscura* (O. F. Müller, 1774), *Montenegrina attemsi jakupicensis* Fauer, 1993 (for taxonomy check Fehér and Szekeres 2016), *Morlina glabra* (Rossmassler, 1835), *Oligolimax annularis* (S. Studer, 1820), *Punctum (Punctum) pygmaeum* (Draparnaud, 1801), *Pyramidula cephalonica* (Westerlund, 1898), *Semilimacella cf. bonelli* (Targioni Tozzetti, 1873), *Sphyradium doliolum* (Bruguiere, 1792), *Truncatellina claus-tralis* (Gredler, 1856) and *Vitrea siveci* Riedel and Velkovrh, 1976. Additionally in the area of Babuna river

springs the species *Chilostoma phocaea jakupicae* (Urbanski, 1979), *Chondrula macedonica* A.J. Wagner, 1914, *Gyalina (Spelaeopatula) gyalinaeformis* (Riedel and Velkovrh, 1976), *Lehmannia brunneri* (Wagner, 1931) (sensu Wiktor) and *Monachoides incarnatus* (O.F. Müller, 1774) were found.

To date, 185 gastropod species and subspecies are known for the fauna of the Republic of North Macedonia.

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Figure 1. *Columella edentula* (Draparnaud, 1805), North Macedonia, Jakupica Mountain



Figure 2. *Vertigo (Vertigo) alpestris* Alder, 1838, North Macedonia, Jakupica Mountain

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Два терестрични полжави нови за фауната на Република Северна Македонија

Ивајло Канев Дедов

Во овој труд се прикажани податоци за два новорегистрирани терестрични полжави за македонската фауна - *Columella edentula* (Draparnaud, 1805) и *Vertigo (Vertigo) alpestris* Alder, 1838. Двата вида беа колекционирани на планината Јакупица, на изворите на река Бабуна, преку постапка за собирање на примероци на почва. Видот *Columella edentula* е исто така колекциониран и од Малешевските Планини.

Со овие видови, вкупниот број на видови и подвидови на терестрични полжави во фауната на Северна Македонија изнесува 185.

Клучни зборови: *Columella edentula*, Малешевски Планини, планина Јакупица, *Vertigo (Vertigo) alpestris*