# A NEW LAND SNAIL SPECIES IN CROATIA (MOLLUSCA: GASTROPODA)

## VESNA ŠTAMOL & EDUARD KLETEČKI

Croatian Natural History Museum, Demetrova 1, HR-10000 Zagreb, Croatia

Štamol, V. & Kletečki, E.: A new land snail species in Croatia (Mollusca: Gastropoda). Nat. Croat., Vol. 20, No. 1., 233-236, 2011, Zagreb.

The land snail Nesovitrea hammonis (Ström, 1765) was found at Ješkovo Lake, near the village of Gola in the Podravina region, making this the first find of this species in Croatia.

Key words: land snails, Nesovitrea hammonis, Croatia

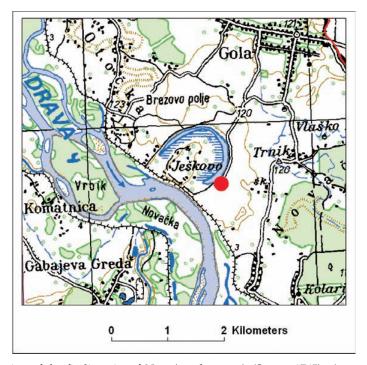
Štamol, V. & Kletečki, E.: Nova vrsta kopnenog puža u fauni Hrvatske (Mollusca: Gastropoda), Nat. Croat., Vol. 20, No. 1., 233-236, 2011, Zagreb.

U Podravini na jezeru Ješkovo kod sela Gola nađen je kopneni puž Nesovitrea hammonis (Ström, 1765) što je prvi nalaz ove vrste u Hrvatskoj

Ključne riječi: kopneni puževi, Nesovitrea hammonis, Hrvatska

Specimens undoubtedly belonging to the species Nesovitrea hammonis (Ström, 1765) were found during field studies in the Drava River area in northern Croatia during 2010, conducted as part of the Natura 2000 project. The snails were found on the shores of Ješkovo Lake near the village of Gola, approximately 16 km north of the town of Đurđevac (UTM: XM51) (Fig. 1). The lake is an oxbow of the Drava River. The specimens were living, and could not have recently been brought to the locality via the river. Fossil specimens of the species Nesovitrea hammonis were recorded in Croatia in the Pleistocene sediments in northern Croatia on the Vukovar plain (POJE, 1986), and on the north Adriatic islands – the island of Krk (MARJANAC et al., 1922/1933) and the island of Susak (STAMOL & POJE, 1998), though recent specimens have not been found there. BANK (2007) lists Nesovitrea hammonis as a recent resident species in Croatia. STAMOL (2010) expressed doubts due to the lack of any published data to support Bank's claims. In a personal communication, BANK (2010) explained that the fossil find of ŠTAMOL & POJE (1998) was mistakenly interpreted as a recent find, and that this was the only source upon which he based his listing of Nesovitrea hammonis in the current Croatian fauna. There, in the new version of Fauna Europaea, BANK (2011) treats Nesovitrea hammonis as a taxon concerning the presence of which in Croatia there are no data. In a search of the malacology lit-





**Fig. 1.** Location of the finding site of *Nesovitrea hammonis* (Ström, 1765): a) map of Croatia with the location of Ješkovo; b) map of the Ješkovo area.

Nat. Croat. Vol. 20(1), 2011 235

erature and examination of the malacology collections of the Croatian Natural History Museum, we further confirmed that this species has not been reported in Croatia. Therefore, the find of *Nesovitrea hammonis* at Ješkovo is the first find of this species in Croatia.

This Palaearctic species (KERNEY et al., 1983: 168) has been recorded in neighbouring Hungary (BANK, 2007; 2011) and Slovenia (BANK, 2007, 2011; JAECKEL et al., 1958: 157), and it could be expected to be present in northern Croatia. Hungarian zoologists failed to find this species in their research in this part of Croatia in 2008 (HÉRA & UHERKOVICH, 2008), and our field surveys of these areas in 2009 also failed to give results. Nor did research done by the first author in 1983 in northern parts of Croatia, reported in POJE (1986), result in the finding of this species. The 2010 field survey, as stated above, recorded this species at a single locality. These facts lead to the opinion that Nesovitrea hammonis is a rare species in the Croatian fauna. However, the number of surveys conducted to date is insufficient to confirm this claim with certainty. According to fossil findings (POJE, 1986; MARJANAC et al., 1992/1993; STAMOL & POJE, 1998), this snail was distributed in Croatia in early Pleistocene, in periods with a relatively damp and warm climate, mainly in grassland habitats mixed with coppice. Favourable habitats and climate ceased to exist in the coastal area of Croatia, and it is no wonder that this species no longer lives on the northern Adriatic islands Krk and Susak. Unlike those, the northern area of Croatia, especially area along the Drava and Danube rivers has suitable habitats and climatic conditions, similar to those in Slovenia and Hungary where this species was registered at numerous localities (DOMOKOS, 2005; VARGA, 2010). Has Nesovitrea hammonis gone missing in Croatia during the last 20.000 years, and could we assign this recent finding in Ješkovo to a perhaps more recent arrival? Is Ješkovo the only area where this species has managed to survive from the Pleistocene? Is this species perhaps more widely distributed in Croatia, and the population in Ješkovo neither relict nor new for Croatia, but simply the only one that researchers have found? All these questions remain open, and it can be hopes that they will be answered by more thorough research into the land malacofauna of northern Croatia.

Received April 13, 2011

#### REFERENCES

- BANK, R. A. (ed.), 2007: Mollusca, Gastropoda. Fauna Europaea version, 1.3, http://www.faunaeur.org/
- BANK, R. A. (ed.), 2011: Mollusca, Gastropoda. Fauna Europaea version, 2.4, http://www.faunaeur.org/
- DOMOKOS, T., 2005: The occurance and oecological circumstances of *Nesovitrea hammonis* at the environs of Körös Rivers. Malacological Newsletter **23**, 169–176. [in Hungarian]
- HÉRA, Z. & UHERKOVICH, Á., 2008: Malacological data (Mollusca) from the Croatian Drava region (N Croatia). p. 121–130. In: PURGER, J. J. (ed.): Biodiversity studies along the Drava river. 328 pp, University of Pécs, Hungary.
- Jaeckel, S. G., Klemm, W. & Meise, W., 1958: Die Land- und Süsswasser-Mollusken der nördlichen Balkanhalbinsel. Abh. Ber. Mus. Tierk. Dresden 23 (2), 141–205.
- KERNEY, M. P., CAMERON, A. D. & JUNGBLUTH, J. H., 1983: Die Landschnecken Nord- und Mitteleuropas. 384 pp, Hamburg u. Berlin, Paul Parey.

- MARJANAC, LJ., POJE, M. & MARJANAC, T., 1993: Pleistocene marine and terrestrial sediments with Striata Fauna on the island of Krk. Rad HAZU 463, Razr. prir. znan. 26, 49–62.
- POJE, M., 1986: Ökologische Veränderungen auf dem Lössplateau von Vukovar in den vergangenen etwa 500000 Jahren. Geol. vjesnik 39, 19-42. [in Croatian]
- ŠTAMOL, V. & POJE, M., 1998: The fossil and recent malacofauna of the island of Susak (Croatia) (Gastropoda: Prosobranchia, Basommatophora, Stylommatophora). Malak. Abh. Staatl. Mus. Tierk. Dresden 19 (11), 103–117.
- ŠTAMOL, V., 2010: A list of the land snails (Mollusca: Gastropoda) of Croatia, with recommendations for their Croatian names. Nat. Croat. 19 (1), 1–76.
- Varga, A., 2010: Relation between Mollusca-fauna and habitat management on the Pannonian Grasslands (Hungary). Malacological Newsletter 28, 57–84. [in Hungarian]

#### SUMMARY

### A new land snail species in Croatia (Mollusca: Gastropoda)

V. Štamol & E. Kletečki

Nesovitrea hammonis (Ström, 1765) is a Palaearctic terrestrial snail that has not previously been recorded in recent Croatian fauna. In 2010, Nesovitrea hammonis was found in the Podravina region of northern Croatia, on the shores of Ješkovo Lake near the village of Gola. This is the first and only finding site in Croatia. Early field surveys by Croatian (1983, 2009) and Hungarian (2008) zoologists in this area and other areas of northern Croatia failed to find this species, which could indicate that it is a rare species in Croatia and/or the poor level of studies in the terrestrial malacofauna of Croatia, particularly in its continental regions.

## SAŽETAK

## Nova vrsta kopnenog puža u fauni Hrvatske (Mollusca: Gastropoda)

V. Štamol & E. Kletečki

Nesovitrea hammonis (Ström, 1765) je palearktički kopneni puž koji dosada nije bio zabilježen u recentnoj fauni Hrvatske. U 2010. g. Nesovitrea hammonis nađen je u sjevernom dijelu Hrvatske, u Podravini, blizu sela Gola na obalama jezera Ješkovo. To je prvo i zasada jedino nalazište u Hrvatskoj. Ranija terenska istraživanja domaćih (1983. i 2009. g.) i mađarskih zoologa (2008. g.) u ovom području i drugim dijelovima sjeverne Hrvatske nisu otkrila nalazišta ove vrste što bi moglo ukazivati ili na rijetkost vrste u Hrvatskoj ili/i na nedovoljnu istraženost kopnene malakofaune Hrvatske pogotovo njezinih kontinentalnih područja.