

First record of the European pond turtle *Emys orbicularis* (Linnaeus, 1758) near Kočevje, SE Slovenia

Prva najdba močvirske sklednice *Emys orbicularis* (Linnaeus, 1758) pri Kočevju, JV Slovenija

Anja PEKOLJ, Gorenji Globodol 28, SI-8216 Mirna Peč; E-mail: anjapekolj@gmail.com

Behare REXHEPI, Zelena pot 21, SI-1000 Ljubljana; E-mail: behare.rexhepi@gmail.com

Tina UREK, Bohovska cesta 14, SI-2311 Hoče; E-mail: tina.urek@outlook.com

Urban DAJČMAN, Ribniška 8, SI- 2000 Maribor; E-mail: urban.dajcman@gmail.com

Katarina DRAŠLER, Ul. bratov Mivšek 32, SI-1353 Borovnica; E-mail: katarina.drasler@gmail.com

Anamarija ŽAGAR, CIBIO Research Centre in Biodiversity and Genetic Resources, InBIO, University of Porto, Rua Padre Armando Quintas, No 7, 4485-661 Vairão, Portugal; E-mail: anamarija.zagar@gmail.com

Gregor LIPOVŠEK, Pako 4, SI-1353 Borovnica; E-mail: lipajerašla@hotmail.com

Marijan GOVEDIČ, Center za kartografijo favne in flore, Klunova 3, 1000 Ljubljana; E-mail: marijan.govedic@ckff.si

The European pond turtle (*Emys orbicularis*) is one of the two representatives of the family Emydidae (Vamberger et al. 2015). It has a very wide range, from northern Europe to some places in North Africa in the south. It occurs in most European countries and countries around the Black Sea in the east (Fritz et al. 2007, Pedall et al. 2011). In Slovenia, individuals of *E. orbicularis* belong to the subspecies *E. o. hellenica* (Vamberger et al. 2015). It is the only indigenous freshwater turtle in Slovenia, common in most regions except in the Alpine area (Krofel et al. 2009). Larger populations have been found at Ljubljansko barje, in Bela krajina, the Sava Basin and on the Slovene coast (see Krofel et al. 2009, Vamberger & Kos 2011). Presence of European pond turtles is often unknown or underestimated owing to their timidity and the fact they surface only if completely undisturbed (Mršič 1997). New findings are therefore expected as also confirmed by Grželj & Grželj (2012).

During the Biology Students Research Camp 2014 (Raziskovalni tabor študentov biologije 2014), which took place in Kočevje from 18. to 29. 7. 2014, we discovered a new locality of the European pond turtle in the Rinža River near Kočevje. We have no knowledge of this species being previously confirmed in the Rinža River system within the UTM VL85 (Krofel et al. 2009). However, the pond turtle has been noted in the neighbouring UTM VL84, near the village of Kočevska reka, although in a different river system – the Reka River (Krofel et al. 2009).

The Rinža is a slow flowing river with a few areas along its course that exhibit wetland conditions, which persist even during low water level. Near the village of Mahovnik, the river expands and forms a swampy area next to the river bank, surrounded by woodland as a suitable habitat for the pond turtle (Fig. 1b, Mršič 1997). The vegetation in this stretch of the river is typical of lowland rivers: *Carex* sp., *Juncus* sp., *Iris pseudacorus*, *Lythrum salicornia*, with water surface covered by *Nuphar lutea* and *Potamogeton* sp. In this area, we attempted to check for the presence of European pond turtle by placing baited funnel traps (under the license 35601-32/2010-6 issued by the Slovenian Environment Agency – ARSO).

In the afternoon of 26. 7. 2014, we placed seven funnel traps in the Rinža River west from the village of Mahovnik near Kočevje. As bait, we used chopped pork liver and aquarium fish food. The traps were left there for two days and checked daily. At the end, we removed them.

On the second trapping day, 28. 7. 2014, one 10-13 year-old European pond turtle male (Fig. 1a) was captured in the trap set at N 45°38'52.9" and E 14°50'31.9". We measured, photographed and marked the individual with a special code using the method by Kuchling (1987). The male weighed 609 g, the carapace was 15.3 cm long and 12.4 cm wide and the plastron was 13.9 cm long, 8.9 cm wide and 6.1 cm high. Later we returned it to the same location where captured.

This new record is significant for the knowledge on distribution of the European pond turtle in Slovenia owing to the following two reasons. It confirms the presence of this species in the Rinža River system, where it had not been found before. The finding in this slow flowing river is also a new information on habitat use by the European pond turtle in Slovenia, as the species had previously been

recorded only in channels and standing water bodies (e.g. at Ljubljansko barje: Vamberger & Kos 2011). Additional and systematic surveys using funnel traps along the Rinža are needed to ascertain its distribution here. Other similar rivers with wetland conditions in Slovenia may also be potentially occupied by the European pond turtle and should be checked for its presence in the future.

References

- Fritz U., Guicking D., Kami H., Arakelyan M., Auer M., Ayaz D., Ayaz D., Fernández C. A., Bakiev A.G., Celani A., Džukić G., Fahd S., Havaš P., Joger U., Khabibullin V.F., Mazanaeva L.F., Široký P., Tripepi S., Valdeón Vélez A., Velo Antón G., Wink M. (2007): Mitochondrial phylogeography of European pond turtles (*Emys orbicularis*, *Emys trinacris*) – an update. *Amphibia-Reptilia* 28(3): 418-426.
- Grželj T., Grželj R. (2012): First record of the European pond turtle (*Emys orbicularis*) in the Nanoščica River basin, central Slovenia. *Nat. Slo.* 14(1): 43-44.
- Krofel M., Cafuta V., Planinc G., Sopotnik M., Šalamun A., Tome S., Vamberger M., Žagar A. (2009): Razširjenost plazilcev v Sloveniji: pregled podatkov, zbranih do leta 2009. *Nat. Slo.* 11(2): 61-99.
- Kuchling G. (1987): Fortpflanzung der Europäischen Sumpfschildkröte *Emys orbicularis*, unter der natürlichen Klimabedingungen Wiens. *ÖGH-Nachrichten*, Wien, 10/11: 33-36.
- Mršič N. (1997): Plazilci (Reptilia) Slovenije. Zavod Republike Slovenije za šolstvo, Ljubljana, 167 pp.
- Pedall I., Fritz U., Stuckas H., Valdeón A., Wink M. (2011): Gene flow across secondary contact zones of the *Emys orbicularis* complex in the Western Mediterranean and evidence for extinction and re-introduction of pond turtles on Corsica and Sardinia (Testudines: Emydidae). *J. Zool. Syst. Evol. Res.* 49(1): 44-57.
- Vamberger M., Kos I. (2011): First observations on some aspects on the natural history of European pond turtles *Emys orbicularis* in Slovenia. *Biologia* 66(1): 170-174.
- Vamberger M., Stuckas H., Sacco F., D'Angelo S., Arculeo M., Cheylan M., Corti C., Lo Valvo M., Marrone F., Wink M., Fritz U. (2015): Differences in gene flow in a twofold secondary contact zone of pond turtles in southern Italy (Testudines: Emydidae: *Emys orbicularis galloitalica*, *E. o. hellenica*, *E. trinacris*). *Zool. Scr.* 44(3): 233-249.



Figure 1. a) The captured 10-13 year-old European pond turtle male, *Emys orbicularis* (photo: Tina Urek); and b) its suitable habitat in the Rinža River at Mahovnik near Kočevje (photo: Marijan Govedič).

Slika 1. a) Ujeti samec močvirske sklednice, *Emys orbicularis*, star med 10 in 13 let (foto: Tina Urek); ter b) reka Rinža, v bližini Mahovnika pri Kočevju, kot njegov ustrezen habitat (foto: Marijan Govedič).