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Emys orbicularis AND *Coronella austriaca*, TWO NEW REPTILE SPECIES IDENTIFIED IN VÂLSAN RIVER NATURAL PROTECTED AREA, ROMANIA

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ABSTRACT. *In the summer of the year 2014 we encountered in the Vâlsan River hydrographical basin two reptile species (Emys orbicularis and Coronella austriaca), which weren't mentioned previously in this area. The European pond turtle was found in a small stream situated in a beech forest, in the lower sector basin. This habitat is unusual for E. orbicularis, indicating the absence of suitable habitats in the protected area, but probably also the anthropogenic pressure that affects the species downstream.*

KEY WORDS: *reptile, habitats, protected area, anthropogenic pressure.*

The herpetofauna from Vâlsan River hydrographical basin was recently studied (Covaciu-Marcov et al. 2014). As a result of the above mentioned study, in the area were identified 18 herpetofauna species and particularities in the case of the green frogs complex (Covaciu-Marcov et al. 2014). In the last years, different areas from the Southern Carpathians were studied in terms of herpetofauna (e.g. Iftime 2005a, Iftime & Iftime 2010, 2011, 2013, 2014, Covaciu-Marcov et al. 2009). However, in many sectors of this region, including Argeş River basin, very few information upon herpetofauna seems to exist (Cogalniceanu et al. 2013a,b). Thus, even more because Vâlsan River basin is a protected area with a particular herpetofauna (Covaciu-Marcov et al. 2014), adding new information about this group is important. As a result of some field research made in the summer of the year 2014, the present study reports the presence of two

reptile species in Vâlsan River, which were not mentioned previously in this region (Covaciu-Marcov et al. 2014), namely *Emys orbicularis* and *Coronella austriaca*. Both are protected species, *E. orbicularis* even being a species of community interest (O.U.G. 57/2007). Thus, their presence is important in a protected area.

E. orbicularis was observed in the vicinity of Costeşti Vâlsan locality, at 500 m altitude. We encountered two individuals, an adult and a juvenile. The presence of the juvenile can be interpreted as a proof of the existence of a stable population in the region. However, the habitat is far from being a typical one, usually *E. orbicularis* being identified in large stagnant waters from low areas (e.g. Nečas et al. 1997, Ghira et al. 2002, Puky et al. 2004). Unlike this, in Vâlsan River basin the species is present on a relatively narrow valley, covered with beech forest and crossed by a small brook. The brook is surrounded by wet areas, but in the upper sector the slopes are steeper, and the wet areas are reduced. Thus, compared with the habitats described in the literature (e.g. Nečas et al. 1997, Sos 2011, Lesnichy 2014) in Vâlsan River basin *E. orbicularis* have no optimal conditions. The species prefers stagnant waters because of their greater thermic stability (Sos 2011). However, *E. orbicularis*` presence in this habitat indicates that it can use in extreme situations a wider range of habitats. Also previously, this species was sometimes encountered in wet forested areas (Puky et al. 2004, Sos 2011). Moreover, it is considered that in Transylvania, the habitats of *E. orbicularis* situated on watercourses are refuge habitats, occupied by very small populations (Ghira et al. 2002). This can be the case of Vâlsan area, probably the species being under a strong anthropogenic pressure in the wider wet areas situated downstream the confluence between Vâlsan şi Argeş Rivers, at approximately 20 downstream from Costeşti Vâlsan. However a positive aspect is represented by the presence of forests, which proved to be important for this species (e.g. Ficetola et al. 2004).

C. austrica was not mentioned previously in the region (Cogălniceanu et al. 2013b). In Vâlsan River basin we encountered only one juvenile, in the vicinity of Bradetu locality, at 696 m altitude. The individual was encountered killed on a dirt road situated at the edge of the locality. The

road lead to the ponds with green frogs situated on the ridge between Vâlsan and Argeş rivers basins (Covaciu-Marcov et al. 2014); thus it was studied before. This confirms once again the fact that this species can not be detected unless a high number of field trips are made; number that depends on the habitats features (Hartel et al. 2009). Thus, also in other protected areas from the country *C. austrica* was identified only after a lot of field studies (e.g. Sas & Cicort-Lucaciu 2012). Even if the juvenile from Bradetu was encountered on a dirt road, it was probably killed directly by local people, because the road is extremely degraded, almost impracticable by car. In the vicinity there are slopes with bushes, valleys, and forested areas, thus habitats characteristic to this species (e.g. Nečas et al. 1997, Ghira et al. 2002, Iftime 2005b, Drobenkov 2014).

The identification of two protected reptile species contributes to the knowledge of the biodiversity from Vâlsan River natural protected area, confirming the presence of many habitats favourable to herpetofauna. However, both species are under human pressure, *C. austrica* being killed by local people and *E. orbicularis* confined to small, atypical habitats.

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