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Establishment of ecological networks in Serbia – field research of batracho- and herpetofauna

Tomović Lj.^{1,*}, Vučić T.^{1,2,3}, Anđelković M.⁴, Bjelica V.¹, Maričić M.¹, Lakušić M.^{5,6,7},
Danon G.¹, Urošević A.⁴, Ivanović A.¹

¹University of Belgrade, Faculty of Biology, Belgrade, Serbia

²Leiden University, Institute of Biology, Leiden, The Netherlands

³Naturalis Biodiversity Center, Leiden, The Netherlands

⁴University of Belgrade, Institute for Biological Research “Siniša Stanković” – National Institute of Republic of Serbia, Belgrade, Serbia

⁵Universidade do Porto, Faculdade de Ciências, Departamento de Biologia, Porto, Portugal

⁶CIBIO, Centro de Investigação em Biodiversidade e Recursos Genéticos, InBIO Laboratório Associado, Vairão, Portugal

⁷BIOPOLIS Program in Genomics, Biodiversity and Land Planning, CIBIO, Vairão, Portugal

*Corresponding author (e-mail): Ljiljana Tomović (lili@bio.bg.ac.rs)

The establishment of ecological networks (including Natura 2000) is one of the priorities in the conservation of important species and habitats in the Republic of Serbia. During the last three years (2020-2022), we conducted field research on amphibian and reptile species listed in the Annexes II & IV of the Habitat Directive. The main goals were to obtain data about precise geographic distribution, estimate population statuses and conservation threats, as well as to propose conservation measures for the studied populations and their habitats. Field studies lasted more than 70 days and included over 60 locations across the country. Focal groups were species listed in Annex II: *Triturus cristatus*, *T. dobrogicus*, *T. ivanbureschi*, *T. macedonicus*, *Testudo graeca*, *T. hermanni*, *Emys orbicularis*, *Elaphe quatuorlineata* and *Vipera ursinii*. Results of these studies provided a more precise geographic distribution of crested newts and their hybrid zones in Serbia. For two species, we proposed the protection of two locations at the national level: one in eastern Serbia (for *T. ivanbureschi*) and one in southern Serbia (for *T. macedonicus*). The most threatened regions, where massive habitat losses and changes were detected, are the valleys of Velika and Zapadna Morava rivers, as well as wetlands along the Danube and Sava rivers. Populations of crested newts in Serbia are endangered by several threatening factors: habitat destructions/alterations, agriculture, water pollution and climatic changes. For reptiles, the most important locations for conservation of species listed in Annex II were detected in southeastern, southern and southwestern Serbia. For three reptile species with limited distribution and small populations, we proposed two locations in southern and southwestern Serbia for protection at the national level. The main threats for those species are habitat destruction/alternation and climatic changes. Results of these studies pointed out inconsistencies in conservation priorities between the national and European levels.