

THE REPTILES OF SERBIA: GLOBAL THREATS AND CONSERVATION STATUS AT EUROPEAN AND NATIONAL LEVELS

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Abstract

The reptile fauna of Serbia consists of about 26 species (including introduced ones): 4 species of turtles, 10 species of snakes, and 12 species of lizards. The aim of this research was to determine the threats to these species at the global level, as well as their conservation status at the European and national levels.

Agriculture represents the biggest threat to the reptiles of Serbia at the global level. It is estimated that 19 out of 26 species are threatened by annual and perennial crops worldwide. Also, housing and urban areas represent a significant cause of the population decrease of these animals, considering that 13 species are threatened by this factor. Other threats that stand out in terms of the number of species they influence are hunting and gathering, road and rail traffic, tourism and recreational areas, etc.

According to the IUCN categorization at the European level, the highest number of reptiles living in the territory of Serbia (20 out of 26) belongs to the category "least concern" (LC). Four species are in the category of "near threatened" taxa (NT), namely: the European pond turtle (*Emys orbicularis*), the Hermann's tortoise (*Testudo hermanni*), the four-lined snake (*Elaphe quatuorlineata*), and the meadow lizard (*Darevskia praticola*), while the Greek tortoise (*Testudo graeca*) and the Ursini's viper (*Vipera ursinii*) are considered "vulnerable" (VU) in Europe.

Of the 26 species of reptiles recorded in Serbia, 20 are listed in the Annex II and/or IV of the Habitats Directive, while only six are not on this list, namely: the red-eared slider (*Trachemys scripta elegans*), the grass snake (*Natrix natrix*), the common European adder (*Vipera berus*), the slow worm (*Anguis fragilis*), the meadow lizard, and the viviparous lizard (*Zootoca vivipara*). Regarding the Berne Convention, 15 species are listed in the Annex I, while five are listed in the Annex III. Six species are not covered by this directive, namely: red-eared slider, the Caspian whipsnake (*Dolichophis caspius*), the sand lizard (*Lacerta agilis*), the Balkan green lizard (*Lacerta trilineata*), the European green lizard (*Lacerta viridis*) and the common wall lizard (*Podarcis muralis*). The only species not covered by either of the two directives is the red-eared turtle, which is expected considering it is a non-native species.

Only six reptile species are not protected by the Serbian national legislation, namely: the red-eared slider, the slow worm, the sand lizard, the Balkan green lizard, the European green lizard, and the common wall lizard. Two species are listed in the Annex II (protected wild species), while as many as 18 species are listed in the Annex I, which means that they are strictly protected in Serbia.