

# ASSESSING ECOCIDE IMPACTS FOR DEVELOPING A CONSERVATION STRATEGY IN UKRAINE

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## **General data**

**Preferred type of contribution:** oral presentation

**Session Title:** HWBSDG\_6.9: Impact of War on Ecosystems and the Values in timely restoration

## **Abstract body**

Beside the human tragedy of Russian full-scale invasion of Ukraine, there is colossal environmental damage with long-term consequences on biodiversity and ecosystems, with evidence of ecocide, i.e. deliberate destruction of nature. To date, the Ukrainian Ministry in charge of the Environment has listed 2500 military acts having environmental impacts, with associated costs of ~50 billion €. The ruining of the Kakhovka dam is the most severe act of ecocide committed by Russia so far, with ~18 km<sup>3</sup> of water flooding the Lower Dnipro National Park (80,000 ha of protected areas with rare species) and natural complexes on the banks of the Dnieper-Buzky estuary, including the Volzhyn forest (Kinburn Spit). Due to their low mobility and dependency on both terrestrial and aquatic environments, reptiles are expected to be most impacted by such ecocide. Using GIS-modeling we identified the most promising territories for the endangered turtle *Emys orbicularis* and snakes *Coronella austriaca* and *Elaphe sauromates* in the mid-southern part of Ukraine. We highlight areas along the Black Sea coast (especially Kinburn Spit) and the lower reaches of Dnieper as major areas for the conservation of these species. Yet, the depletion of key biotopes for these species and associated biodiversity may dramatically impact the ecology of the entire Black Sea region with potential major ecological consequences. We thank the projects EMYS-R ([www.emysr.cnrs.fr](http://www.emysr.cnrs.fr)), Nr.lzp-2021/1-0247 and PAUSE programme.

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