International Scientific Conference on Restoration of Conservation-Reliant Species and Habitats (ResConf 2020)

Is there a future for the Romanian hamster, *Mesocricetus newtoni* in Bulgaria?

FACULTY OF BIOLOGY
SOFIA UNIVERSITY

Daniela Simeonovska-Nikolova*, *Venislava Spasova, Krastio Dimitrov, Katerina Zareva-Simeonova*
Department of Ecology and Environmental Protection, Faculty of Biology, Sofia University "St. Kliment Ohridski", Sofia 1164, Bulgaria

*Corresponding author: dansim@biofac.uni-sofia.bg

The Romanian hamster, *Mesocricetus newtoni* is an endemic species distributed in Bulgaria and Romania. The species is classified by IUCN as 'near threatened'. In the Bulgarian Red Data Book the species is listed as Vulnerable and its population seems to be progressively declining. Due to its past key role in the ecosystems, knowledge of the state of the population, as well as a better understanding of its behaviour are important prerequisites for the creation of a successful ex situ population, and further its reintroduction into the wild. Universities with their scientific potential and zoos as centers for breeding of rare and endangered species have a key role in the process of biodiversity conservation, where knowledge of behaviour can play a significant role in conservation activities.

Author: Daniela Simeonovska-Nikolova.

Romanian hamster in front of its hole.

Surveys were carried out during the active seasons of 2019-2020 in different agroecosystems in Northeastern Bulgaria. Suitable habitats for the hamsters were selected and visited – alfalfa and wheat fields, steppe habitats etc. Over 200 km of transects were examined.

Mosaic habitats are a good prerequisite for the species presence.

Observations were carried out using direct observations, camera traps and Sherman live traps.

During the survey, potential presence of the species was gather through assessment of the habitats conditions and presence of holes. Agricultural practices were taken under consideration.

Additional information about previous studies, monitoring programs and face to face interviews with local agronomists was collected as well.

Despite the efforts and cooperation of local agronomists, the species was not captured, nor were any reliable traces of its activity found. The intensive treatment of agroecosystems with pesticides, as well as the observed changes in land use - large areas covered by monocultures, reduction of alfalfa areas are probably the main reasons for this result.

This allows us to suggest that the population of the Romanian hamster is critically declining in our country. Therefore, implementation of measures for its restoration is urgently needed. This requires a different approach to the study of the species, so activities have been initiated to provide conditions for the study of the behaviour and ecology of the species *ex situ*.

Author: Daniela Simeonovska-Nikolova.

Rearing hamsters in captivity has valuable contribution to conservation activities.

Acknowledgments
This study was done thanks to the PUDOOS – Ministry of Environmental and water, Project grant № №12570/08.04.2019