

Current status, distribution and conservation of *Mesocricetus newtoni* and *Cricetus cricetus* (Mammalia: Cricetinae) in Bulgaria

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INTRODUCTION

Hamsters in Europe are represented by three species *Cricetus cricetus*, *Mesocricetus newtoni* and *Cricetulus migratorius* and their distribution range overlap in Bulgaria and Romania. All hamster species are rare and their populations (especially that of *C. cricetus*) have sharply decreased throughout Europe in recent years, mainly due to the changes in agriculture (Nechay, 2000).

Here we provide information about the current status of two hamster species, *C. cricetus* and *M. newtoni*, in Bulgaria



MATERIALS & METHODS

Our study is based on the field research conducted between 2001 and 2014, with using live traps, field observations, and remains from the pellets of some owl species (*B. bubo*, *T. alba*, *A. noctua*). All known data about hamster distribution in Bulgaria, taken from publications, records of museum specimens, and personal reports are summarized.

RESULTS

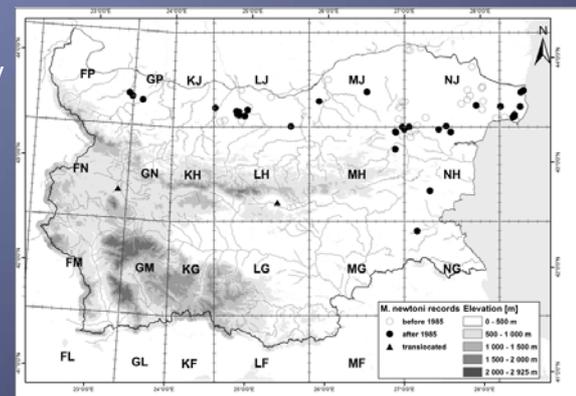
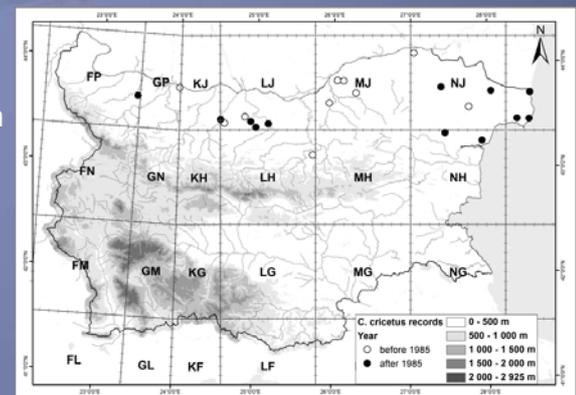
A total of 97 records of *M. newtoni* and 22 records of *C. cricetus* are included in the study. Both species inhabit agricultural lands (alfalfa and cereal fields), mainly in Northern Bulgaria (Danube plain and Dobrudzha). Recently, two findings of *M. newtoni*, both in owls' pellets, have been reported from places south of the Stara Planina Mountains (which divides Bulgaria into a northern and a southern part). Also there were two cases of translocated animals (Sofia and Kazanlak).

The main threats to the hamsters come from various agriculture practices – plugging the land immediately after harvesting; burning the abandoned and arable lands (this old practice is forbidden but still exists in Bulgaria due to lack of strict control); use of rodenticides; large monocultural fields (in the last years used mainly for industrial crops, such as rapeseed).

The populations of these rare species may also be affected by some biotic factors, e.g. predation (by mustelids, owls and diurnal raptors), and competition with other rodent species, such as the European souslik (*Spermophilus citellus*) and the brown rat (*R. norvegicus*), the latter probably preying on *M. newtoni* as well.

CONCLUSION

For the first time has been established monitoring scheme for these two species in Bulgaria. Population on *C. cricetus* is isolated from the neighboring ones (Serbia and Romania) and *M. newtoni* is an endemic for Bulgaria and Romanian Dobrudzha. Further conservation activities are needed for improving populations of the hamster species



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