Hystrix, (n.s.) 8 (1-2) (1996): 55-59

REVIEW OF THE STATUS OF MAMMALS IN BULGARIA

DANIEL PESHEV

Faculty of Biology, University of Sofia, 8 Dradan Zankov str. Sofia, Bulgaria

ABSTRACT – In the territory of Bulgaria are found 97 species of mammals, belonging to 8 orders. 37 of them are protected. 19 mammalian species are included in the Bulgarian Red Data Book. Two of them are extinct, 8 are endangered and 9 are rare. In Bulgaria there are no endemic mammals. Three species are extinct: *Eliomys quercinus*, *Mustela lutreola* and *Lynx lynx*. 5 species are introduced: *Ondatra zibethicn, Oryctolagus cuniculus*, *Cervus nippon*, *Cervus dama* and *Ovis ammon*. The raccon dog (*Nyctereustes procyonoides*) appeared by natural colonisation.

Key words: Mammals, Introduction, Extinction, Bulgaria

INTRODUCTION

The study of theriology in Bulgaria began comparatively late. Bulgaria did not achieved a measure of independent status until March, 1878, and there is a little evidence that much zoological research took place during the five centuries of Turkish rule which preceded that event. The first information which can be found in the scientific literature of mammalogy in Bulgaria concerns rodents.

Much of the early data on the mammalian fauna was provided by foreign travellers (Nehring, 1898, 1899, 1901; Miller, 1903, 1910). Knud Andersen made a systematic collection of Bulgarian mammals and turned over the materials to Kovachev - one of the first Bulgarian specialists of the subject. He wrote "The Mammals of Bulgaria" in 1925. Following the publication of Kovachev's book, there was again a series of short studies by specialists from other countries (Boethicher, 1925, 1933; Heinrich, 1936; Wolf, 1940). The information presented in these articles was fragmentary. A new period in the study of Bulgarian mammals began with the arrival in this country of Vladimir Martino, who gave an impetus to research in Bulgarian mammalogy. The study of mammals in Bulgaria since that time is connected mainly with the names of Paspalev, Peshev, Atanasov, Markov and many others.

The aim of the present article is to make a general review of Bulgarian mammals and to give information about their relative abundance, population tendencies and distribution area.

RESULTS AND DISCUSSION

In comparison with most European countries, Bulgaria has a rich variety of plants and animal. However, the relatively small area they inhabit and current anthropogenic factors make the future survival of the majority of species extremely questionable.

Many species have already disappeared or their populations are so small and sparse that they are on the threshold of extinction.

At present there is a total of 97 specie of mammals in Bulgaria. This figure includes not only native species but also those introduced by man or by natural colonisation.

The mammals of Bulgaria belong to 8 orders: Insectivora - 10 sp., Chiroptera - 29 sp., Lagomorpha - 2 sp., Rodentia -31 sp., Carnivora - 15 sp., Pinnipeda - 1 sp., Cetacea - 3 sp., Artiodactyla - 6 sp.. In recent years the population size of many species has become highly unstable. Populations changes in size, partly in response to external factors. Some species have become extinct, while others are highly reduced in numbers and are protected, or were included in the Red Data Book of Bulgaria. Protected species are all bats, the Mediterranean monk seal (*Monachus monachus*), the European mink *(Mustela eversmanni*), the marbled poleecat (*Vormela peregusna*), the common dolphin (*Delphinus delphis*), the bottle-nosed dolphin (*Tursiops truncatus*), the common porpoise (*Phocoena phocoena*), the hazel dormouse (*Muscardinus avellanarius*). The species according to the IUCN categories, with their relative abundance. population tendencies and distribution area are given in Tab. 1.

There are no endemic species in the Bulgarian mammal fauna. There are 3 extinct species: the garden dormouse (*Eliomys quercinus),* the European mink *(Mustela lutreola*) and the lynx (*Lynx* ***lynx).*** Some authors consider that the garden dormouse was identified incorrectly by Heinrich in 1936: Since that year it has not been found. It is supposed that the extinction of the European mink dates from about 1960. The last lynx was killed in 1941, though at the beginning of the century it was common in all mountainous areas.

Five species have been introduced: *Ondatra zybethica* in 1956, *Oryctolagus cuniculus* in 1934, the sika deer *(Cervus nippon*) in the sixties. *Cervus dama* in 1904 and *Ovis ammon* in 1965. All of them were introduced as game species except the muskrat , which was introduced for its fur. In 1968 the raccoon dog (*Nyctereustes procyonoides*) appeared for the first time. It came from the Danube delta and now it can be found in the lowlands and the whole territory of the country.

Finally we can say that the main factors threatening mammals with the extinction are anthropogenic reclaimation of natural habitats and direct extermination by man. Conditions are particularly difficult for species inhabiting open landscapes, where human economic activities have been developing most intensively.

Table 1 IUCN categories. relative abundance, population tendencies and distribution area of the Bulgarian mammals. Species with a blank categories arc not protected and are not influenced by human activities.

SPECIES	CATEGORY	RELATIVE ABUNDANCE	POPULATION DISTRIBUTION	TENDENCY AREA
INSECTIVORA				
1. *Erinaceus concolor*		common	stable	stable
2. *Talpa europaea*		very common	stable	stable
3. *T. levantis*	rare	rare	declining	declining
4. *Sorex minutus*	rare	rare	stable	stable
4. *S. araneus*		common	stable	stable
5. *Neomys fodiens*		not common	stable	stable
6. *N. anomalus*		not common	stable	stable
8. *Suncus etruscus*	rare	rarc	increasing	increasing
9. *Crocidura suaveolens*	rare	rare	stable	stable
10. *C. leucodon*		very common	stable	stable
CHIROITEKA				
1. *Rhinolophus ferrumequinum*	vulnerable	common	declining	declining
2. *R. hipposideros*	vulnerable	common	declining	declining
3. *R. euriale*	vulnerable	common	declining	declining
4. *R. mehely*	vulnerable	rare	declining	declining
5. *R. blasi*	vulnerable	not common	declining	dcclining
6. *Myotys myotys*	vulnerablc	common	declining	declining
7. *M. blythi*	vulnerable	common	declining	declining
8. *M. bechsteinii*	vulnerable	rare	declining	regression
9. *M. capaccini*	vulnerable	rare	declining	declining
10. *M. nattereri*	endangered	rare	declining	declining
11. *M. emarginatus*	vulnerable	not common	declining	declining
12. *M. mystacinus*	vulnerablc	not common	declining	declining
13. *M. brandtii*	endangered	rare	declining	declining
14. *M. daubentonii*	vulnerable	rare	declining	dcclining
15. *Vespertilio murinus*	endangered	rare	declining	declining
16. *Eptesicus nilssoni*	endangered	rare	declining	declining
17. *E. serotinus*	vulnerable	rare	declining	declining
18. *Pipistrellus savii*	vulnerable	rare	declining	declining
19. *P. pipistrellus*	vulnerable	common	declining	declining
20. *P. nathusii*	vulnerable	not common	declining	declining
21. *P. kuhli*	vulnerable	rare	stable	increasing
22. *Nyctalus lasiopterus*	endangered	rarc	stable	stable
23. *N. noctula*	vulnerable	common	stable	stable
24. *N. leisleri*	endangered	rare	declining	declining
25. *Plecotus auritus*	vulnerable	not common	declining	declining
26. *P. austriacus*	vulnerable	common	stable	stable
21. *Barbastella barbastellus*	vulnerable	rare	declining	declining
28. *Miniopterus schreibersi*		very common	declining	declining
29. *Tadarida teniotis*	endangered	rare	declining	declining

(continued)

SPECIES	CATEGORY	RELATIVE ABUNDANCE	POPULATION DISTRIBUTION	TENDENCY AREA
LAGOMORPHA				
1. *Lepus capensis*	vulnerable	common	declining	stable
2. *Oryctolagus cuniculus*		rare	stable	stable
RODENTIA				
1. *Sciurus vulgaris*		common	declining	stable
2. *Spermophilus citellus*		common	stable	stable
3. *Cricetulus migratorius*	endangered	rare	declining	declining
4. *Cricetus cricetus*	endangered	rare	declining	declining
5. *Mesocricetus newtoni*	endangered	rare	declining	declining
6. *Clethrionomys glareolus*		very common	stable	stable
7. *Arvicola terrestris*		common	stable	stable
8. *Ondatra zibethicus*		rare	increasing	extennsion
9. *Microtus subterraneus*		rare	stable	stable
10 *M. nivalis*		not common	stable	stable
11. *M. guenthrri*		not common	stable	stable
12 *M. arvalis*		very common	stable	stable
13 *M. epiroticus*		common	stable	stable
14 *Mus musculus*		very common	stable	stable
15 *M. spicilegus*		common	stable	stable
16 *M. spretoides*		common	stable	stable
17 *Rattus norvegicus*		very common	increasing	stable
18 *R. rattus*		not common	declining	declining
19 *Micromys minutus*		not common	declining	declining
20 *Apodemus mystacinus*		common	stable	stable
21 *A. agrarius*		common	stable	stable
22 *A. microps*		not common	stable	stable
23 *A. sylvaticus*		very common	stable	stable
24 *A. flavicollis*		common	stable	stable
25 *Sicista subtilis*	vulnerable	rare	declining	declining
26 *Dryomys nitedula*		common	stable	stable
27 *Myoxus glis*		common	stable	stable
2x *Muscardinus avellanarius*		common	stable	stable
29 *Myomimus roachi*	endemgered	rare	declining	declining
30 *Nannospalax leucodon*		common	stable	stable
CETACEA				
1. *Delphinus delphis*	vulnerable	not common	declining	declining
2. *Tursiops truncatus*	endangered	rare	declining	declining
3. *Phocoena phocoena*	endangered	rare	declining	declining
CARNIVORA				
1. *Ursus arctos*	rare	rare	declining	declining
2. *Cariis lupus*		common	declining	stable
3. *C. aureus*		common	increasing	increasing
4. *Vulpes vulpes*		common	stable	stable
5. *Nycterustes procyonoides*		rare	increasing	increasing
6. *Meles meles*		common	stable	stable
7. *Lutra lutra*	endangered	rare	declining	declining

8. *Martes foina*		common	stable	stable
9. *M. martes*	endangered	rare	declining	declining
10. *Mustela putorius*		common	stable	stable
11. *M. eversmanni*	rare	rare	stable	stable
12. *M. nivalis*		common	stable	stable
13. *Vormela peregusna*	endangered	rare	stable	stable
14. *Felis silvestris*		common	stable	stable
ARTIODACTYLA				
1. *Sus scrofu*		very common	increasing	increasing
2. *Capreolus capreolus*		common	declining	stable
3. *Cervus elaphus*		common	increasing	increasing
4. *C. nippon*		rare	declining	declining
5. *C. dama*		common	increasing	increasing
6. *Rupicapra rupicapra*		common	stable	stable
7. *Ovis ammon*		rare	increasing	increasing

REFERENCES

Boetticher, H., 192.5. Einige Bemerkungen uber die Saugetiere des Muss. Alla Massivs in Bulgarien. Pallasia, Bd.II.

Boetticher, H., 1933. Die Elemente der bulgarischen Saugetierfauna und ihre geographischen und okologischen Grundlagen. Mitt.a.d.Konigl.Naturw.Inst.in Sofia, Bd.VI.

Heinrich, G., 1936. Über die von mir in Jahre 193.5 in Bulgarien gesammelten Saugetiere. Mitt.a.d.Konigl.Naturw.Inst.in Sofia, Bd.IX.

Kovachev, W., 1925. The Mammals of Bulgaria (In Bulgarian). Trudove bulgarski nauchen semedelski institut, 11.

Miller, G., 1903. Description of two new Mole rats. Proc. Biol. Soc.Washington, 16.

Miller, G., 1910. Ann. and Mag. Nat. Hist., VI, 459 pp.

Nehring, A.,1898. Uber *Cricetus newtoni* n.sp. aus Ostbulgarien. Zool. Anz., Leipzig, 21.

Nehring, A., 1899. Des Ostbulgarische Hamster *(Mesocricetus newtoni* Nhrg.). Naturw. Wochenschrift.

Nehring, **A.,** 1901. Uber *Mesocricetus newtoni* Nhrg. aus der Dobrudza. S.B. Ges. Naturf. Freunde, Berlin. Jhg.

Wolf, H., 1940. Zur Kenntnis der Saugetierfauna Bulgariens. Mitt.Kgl. Naturw.Inst.,13, Sofia.