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THE PRESENT STATUS OF DORMICE (*MYOXIDAE*) IN POLAND

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Four species of dormice (family *Myoxidae*) are represented in the Polish fauna: *Myoxus glis, Eliomys quercinus, Dryomys nitedula* and *Muscardinus avellanarius*. They are all rare and three of them (all except *M. avellanarius*) are threatened with extinction. The distribution and the causes for extinction in some parts of the land are discussed.

Key words: Myoxidae, distribution, habitats, conservation, Poland.

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U poljskoj fauni prisutne su četiri vrste puhova (porodica *Myoxidae*): *Myoxus glis, Eliomys quercinus, Dryomys nitedula* i *Muscardinus avellanarius*. Sve su one rijetke, a trima od njih (sve osim *M. avellanarius*) prijeti izumiranje. U radu se govori o rasprostranjenju vrsta i o razlozima njihova izumiranja.

Ključne riječi: Myoxidae, rasprostranjenje, staništa, zaštita, Poljska

INTRODUCTION

Four species of the dormouse family (*Myoxidae*) are presented in the Polish mammal fauna: the garden dormouse (*E. quercinus*), the forest dormouse (*D. nitedula*), the edible dormouse (*M. glis*) and the common dormouse (*M. avellanarius*). All the species are protected by law, three of them (except *M. avellanarius*) being also included in the »Polish Red Data Book of Animals«. All the known localities of *Myoxi-*

dae (up to late 70s) were published in »Atlas of Polish Mammals« (PUCEK, 1983a, 1983b, 1983c, 1983d).

The aim of this presentation is to summarise currently available data concerning the actual distribution, some ecological aspects, and the protection of dormice in Poland.

MATERIALS AND METHODS

Our paper summarises records compiled up to the autumn of 1996. Information originates from published data, field observations, trapping records and pellet analysis.

Dormice distribution was plotted on the 10 × 10 km squares of the UTM grid.

Two symbols were used on the maps: white circles indicating records up to 1960, black circles which indicating records from 1961.

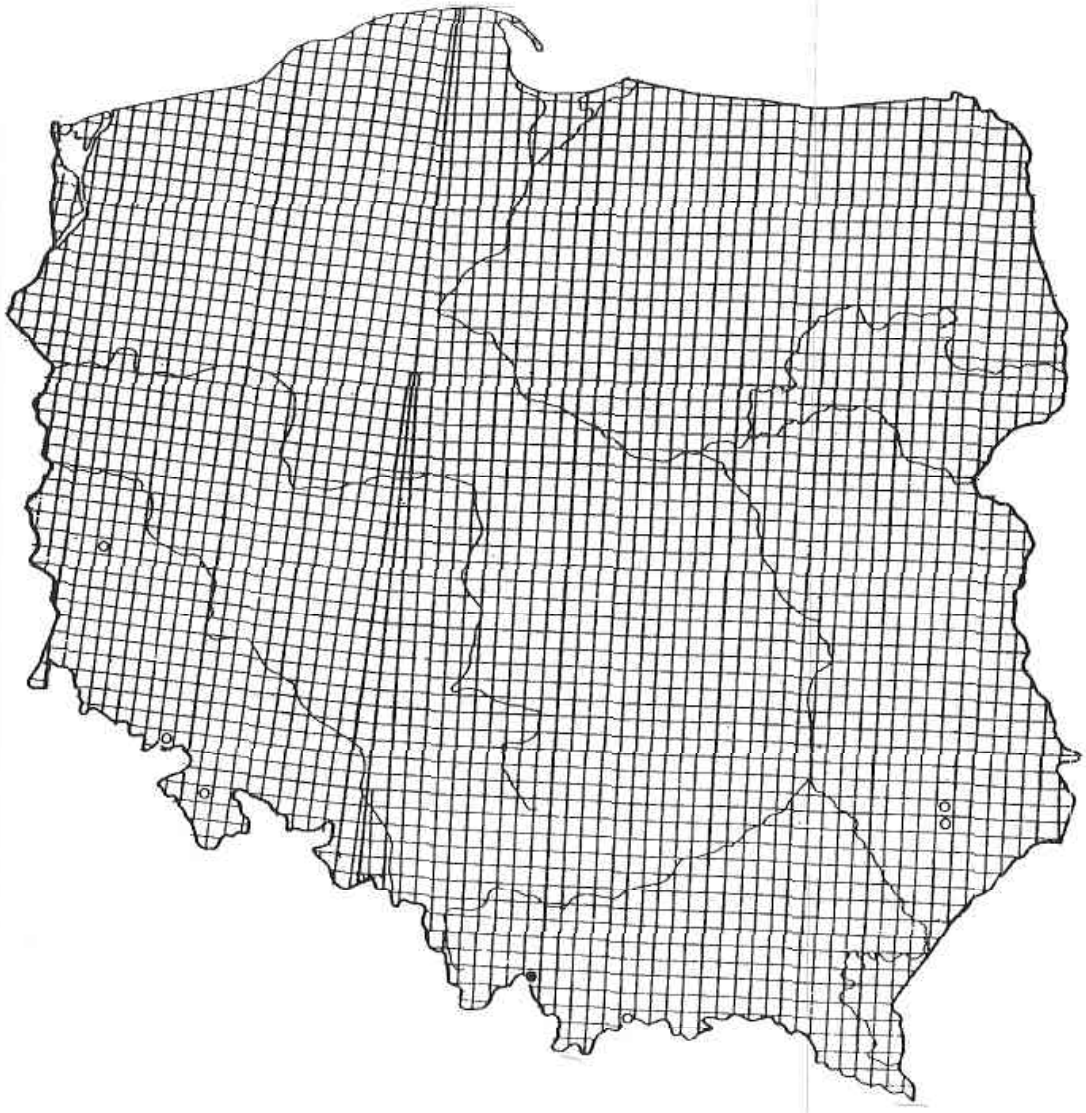

Fig. 1. Localities of *Eliomys quercinus* in Poland

RESULTS AND DISCUSSION

Eliomys quercinus (Linnaeus, 1766)

The garden dormouse is one of the rarest mammal species in Poland. Only seven localities in the southern part of the country are known, of which only two, namely in Babia Góra (KOWALSKI, SYCH, 1963) and in the Pieniny Mts. (SITOWSKI, 1948), have been confirmed after the Second World War (Fig. 1). The knowledge about the habitat requirements and ecology of our population of *Eliomys quercinus* is very limited.

The garden dormouse is also rare in neighbouring countries: in north-eastern Germany (NEUMANN, 1985), in the Czech Republic (ANDERA, 1995), in Slovakia (DUDICH, 1993), in Ukraine and in Bielorussia (Lichačev, 1972 cited after KRYŠTUFEK & VOHRALIK, 1994) and in Lithuania (JUŠKAITIS, 1995).

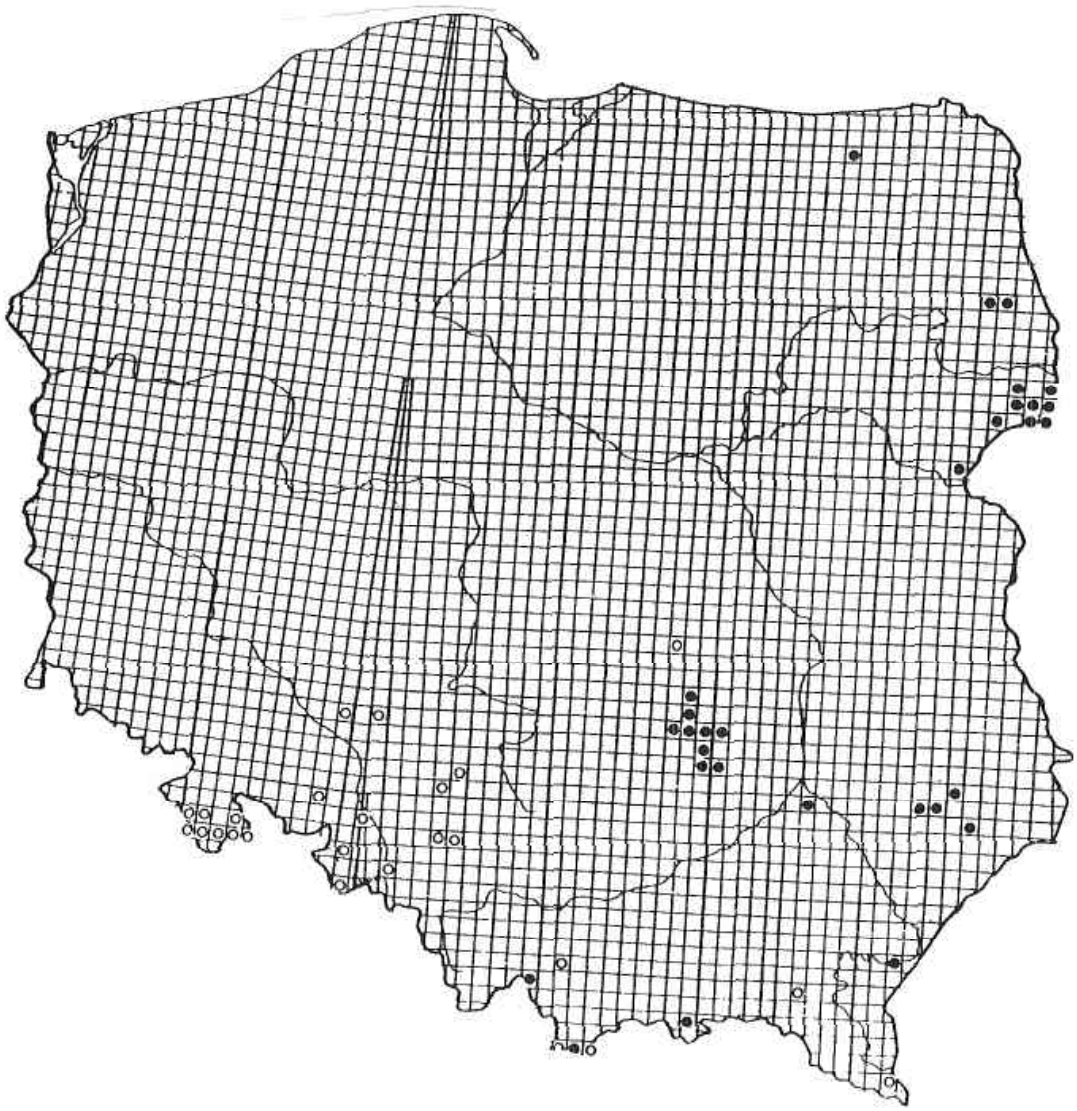

Fig. 2. Localities of *Dryomys nitedula* in Poland

Dryomys nitedula (Pallas, 1779)

The forest dormouse has the north-western border of its range in Poland (PUCEK, 1983b, KRYŠTUFEK & VOHRALIK, 1994), therefore localities of the species from south-eastern part of the country are known (Fig. 2). It seems that the lack of records after 1960 in the south-western part of the country (especially in the Sudety Mts.) is the result of insufficient studies rather than of the extinction of *D. nitedula* in the area. On the other hand, intensive studies in north-eastern Poland resulted in the finding of a new locality in Borecka Forest in 1995 (JURCZYSZYN, WOŁK, 1996), which is situated out of the known range.

The forest dormouse populates mixed, deciduous and coniferous woods. It is sometimes found in bird nestboxes (POMARNACKI, 1969; JURCZYSZYN, ZIOMEK, 1991) and in bat boxes (JURCZYSZYN, unpubl.).

Myoxus glis (Linnaeus, 1766)

Populates nearly the whole of Poland, except some small areas the near western border, is in the range of the edible dormouse (STORCH, 1978; BITZ, 1990). Distribution is probably better known than that of the other three species. Nowadays *M. glis* occurs mainly in the south and east of the country (Fig. 3).

In most of the lowlands of central Poland *M. glis* was not found after the 19th century. This region was largely deforested several hundred years ago, with the edible dormouse becoming extinct.

In Pomerania (north-western region), with many beech forests, 12 localities of fat dormouse were established at the end of the 19th and in the first half of the 20th century. After 1960 (and even after World War II) only 2 localities were confirmed (Fig. 3), in spite of intensive studies in this area during the last years.

M. glis inhabits mainly old deciduous (beech, oak, hazel) and mixed forests.

Muscardinus avellanarius (Linnaeus, 1758)

The common dormouse occurs mainly in south and eastern Poland (Fig. 4). We suppose that previously the entire country was populated by it. Now there is only a small number of localities available in the extensive area of central and north-western Poland. The present occurrence of the species seems to reflect not only the habitat conditions but also the historical development of the environment, altered by man.

The common dormouse lives in different types of forests (deciduous, mixed and coniferous) with undergrowth (especially *Coryllus avellana*) and with bushes on the edges (raspberry, blackberry bushes). It also lives in osieries (bushes of *Salix*) and in some plantations (of briar-rose, raspberries).

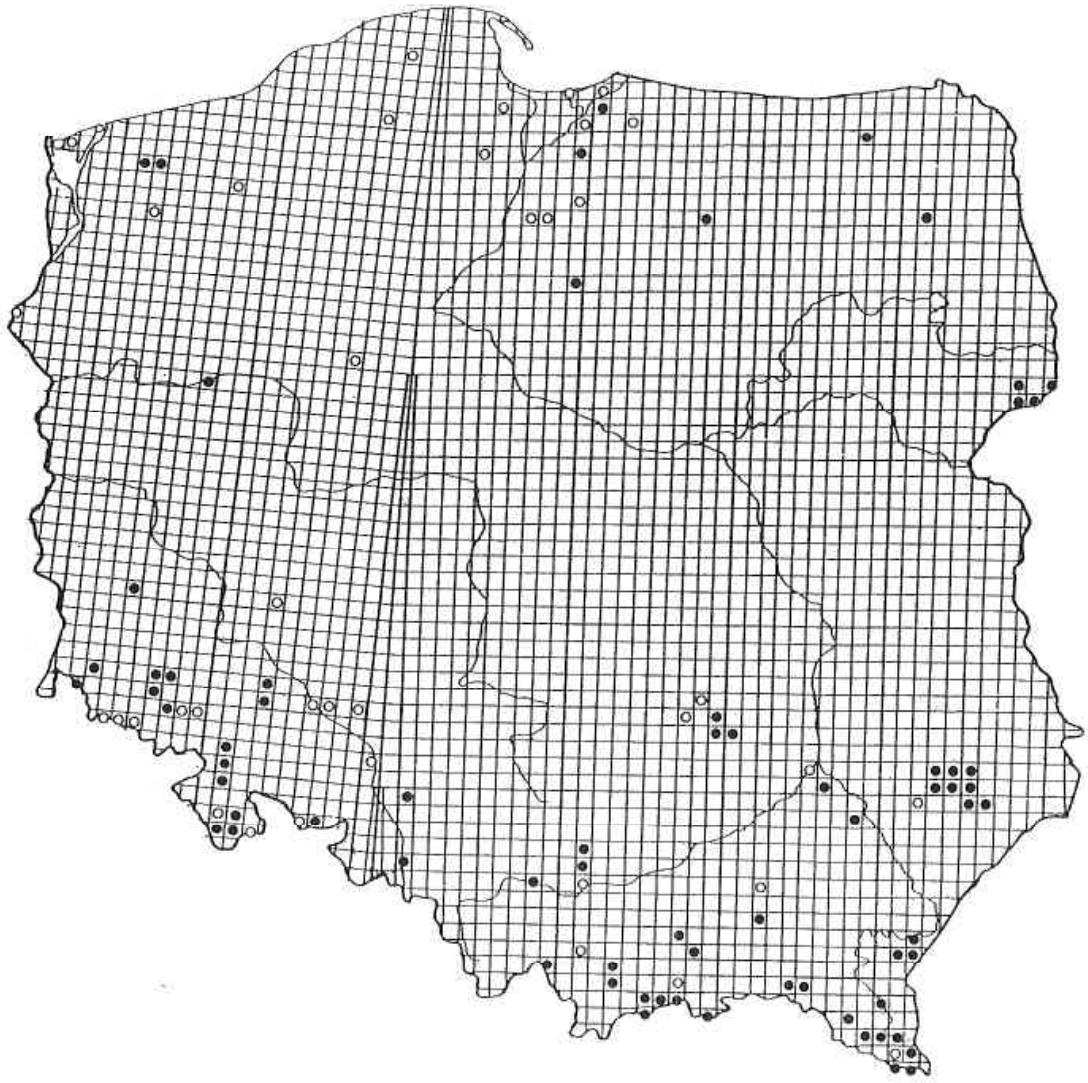

Fig. 3. Localities of *Myoxus glis* in Poland

Three species of Myoxidae are included in the »Polish red data book of animals« (PUCEK, 1992a, 1992b, 1992c). All are in the category R, which includes species at risk because of their rarity (GŁOWACIŃSKI, 1992).

The extinctions of *M. glis* and *M. avellanarius* in central and locally in north-western Poland could be due to very extensive deforestation in the past. Since this lowland area is rather flat, no wood refuges were left after the falling. In the southern mountainous regions and in some eastern parts of Poland, where there was more extensive husbandry, many more localities of these two species were found.

JURCZYSZYN (1997) found that the main factor influencing the extinction of edible dormouse in Pomerania was forest management.

There is still insufficient knowledge of the distribution of *Myoxidae* in Poland. The deforestation which took place for hundreds of years caused separated local

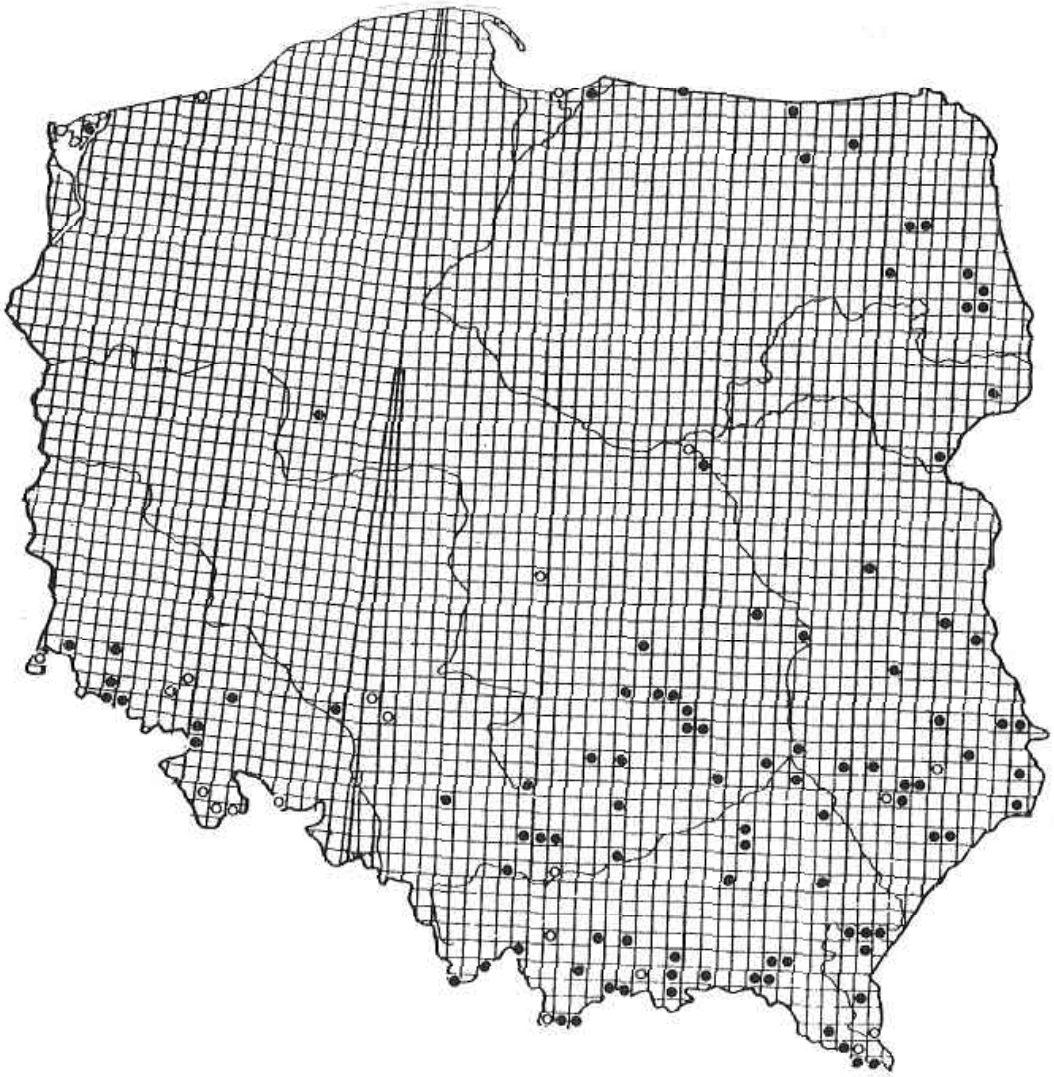

Fig. 4. Localities of *Muscardinus avellanarius* in Poland

dormouse populations. Some of them exist in small woods of several tens of hectares at most, as in the case with *Myoxus glis* in north-western Poland. It is a difficult task to record such insular populations. The only way to improve our knowledge of dormouse distribution is an intensification of the studies.

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SUMMARY

The present status of dormice (*Myoxidae*) in Poland

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Four species of dormice (family *Myoxidae*) are represented in the Polish fauna: *Myoxus glis, Eliomys quercinus, Dryomys nitedula* and *Muscardinus avellanarius*. They are all rare and three of them (all except *M. avellanarius*) are threatened with extinction. *Eliomys quercinus* is the rarest, known only from south of the country. *Dryomys nitedula* occurs mainly in south-eastern part of Poland, and new localities are reported from the north eastern border of Poland. *Myoxus glis* and *Muscardinus avellanarius*, which are widely distributed throughout the country, are absent from great part of central Poland and are very rare in north-western Poland. Extinction of *M. glis* and *M. avellanarius* in central and some parts of north-west of the country is ascribed to extensive deforestation with no wood refuges left during several hundred years.

SAŽETAK

Sadašnje stanje puhova (*Myoxidae*) u Poljskoj

Mirosław Jurczyszyn & Krzysztof Wołk

U poljskoj fauni prisutne su četiri vrste puhova (porodica *Myoxidae*): *Myoxus glis, Eliomys quercinus, Dryomys nitedula* i *Muscardinus avellanarius*. Sve su one rijetke, a trima od njih (sve osim *M. avellanarius*) prijeti izumiranje. *Eliomys quercinus* je najrjeđi i prisutan je samo na jugu zemlje. *Dryomys nitedula* pojavljuje se većinom u jugoistočnom dijelu Poljske, a novi lokaliteti su zabilježeni na njenoj sjeveroistočnoj granici. *Myoxus glis* i *Muscardinus avellanarius* su široko rasprostranjeni u cijeloj zemlji, ali u velikom dijelu središnje Poljske ih nema, a u sjeverozapadnoj Poljskoj vrlo su rijetki. Izumiranje *M. glis* i *M. avellanarius* u središnjim i nekim sjeverozapadnim krajevima zemlje pripisuje se znatnoj deforestaciji koja traje nekoliko stoljeća, pri čemu dijelovi šuma kao pribježišta (refugiji) nisu sačuvani.