Hystrix, (n.s.) 6 (1-2) (1994): 195 - 198 (1995) Proc. II Conf. on Dormice

DORMICE DISTRIBUTION IN ROMAGNA REGION (ITALY)

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ABSTRACT – The geographic distribution of dormice living in Romagna is summarised. Data were collected by direct observation of living animals, finding of dead specimens and analysis of owl pellets, in addition to recent literature. *Eliomys quercinus, Myoxus glis* and *Muscardinus uvellanarius* are present in this area between north continental and central Mediterranean Italy. The distribution is presented according to 10x10 km squares of the UTM grid.

Key words: Myoxidae, Distribution, Romagna region, Northern Italy.

RIASSUNTO – *Distribuzione dei Mioxidi nella regione Romagna (Italia)* – Vengono riassunti i dati disponibili sulla distribuzione geografica dei Mioxidi viventi in Romagna. Si sono utilizzati dati provenienti da osservazioni dirette, letteratura, esemplari ritrovati morti e dell'analisidi borre di rapaci notturni. *Eliomys quercinus, Myoxus glis* e *Muscardinus avellanarius* sono presenti in quest'areache si pone a confine tra il bioclima continentale nord-italiano e quello piu mediterraneo del centro. La distribuzione delle specie e mostrata su reticolo UTM 10x10 km.

Parole chiave: Myoxidae, Distribuzione, Regione Romagna, Nord Italia.

INTRODUCTION

The Romagna region of Italy is well known for its long tradition of natural history studies (e.g. Zangheri, 1976). *Eliomys quercinus, Myoxus glis* and *Muscardinus avellanarius* are present in this area which lies between north Continental and central Mediterranean Italy (Fig. 1). It includes the whole of the provinces of Forli, Rimini and Ravenna and parts of Pesaro, Arezzo and Firenze. Thanks to the financial support of the Forli Province Administration (Gellini et al., 1992) and in order to contribute to the national atlas of mammals project (Cagnolaro et al., 1989), the local geographic distribution of these species was investigated.

AREA, MATERIALS AND METHODS

The Romagna area is characterised by two main landscapes:

- the Apennines, with the main watershed in a NW-SE direction (average elevation: 1200-1300 m) and several ridges running NE-SW; woods (mature and coppice) of *Fagus sylvatica* on the high mountains and patches of woodland (mainly coppices of *Quercus pubescens*, *Q. cerris* and *Ostrya carpinifolia*), bushy areas, pasture and cultivated land on the hills; annual rainfall approximately of 2000 mm, mean temperature 9°C;
- the southernmost part of the Padana Plain, between the Apennines and the

with natural vegetation are present in the Po Delta Park; annual rainfall of approx. 700 mm and mean temperature 13°C.

Rotnagna occupies 77 squares of 10x10 km of tlie UTM grid between zones 32 and 33.

The geographic distribution of dormice was established by direct observation of living animals, finding of dead specimens and analysis of the bone remains in owl pellets. **All** available recent literature and museum materials was investigated.

Fig. 1 – Position of the study area in Italy.

RESULTS AND DISCUSSION

Myoxus glis was the species most frequently observed in the sightings data, especially because they enter old houses in the Apennines. There were very few sightings of *Muscardinus avellanarius* or *Eliomys quercinus.* We only used data obtained from expert collaborators because of the frequent confusion of *M. glis* with *Sciurus vulgaris*, and with "mice" or "rats" by other people.

Few dead specimens were collected: *M. glis* and *M avellanarius* from car accidents, one *M. avellanarius* found dead in a hibernating nest, one *M glis* drowned in water tank and two *E. quercinus* found dead along a pathway.

Nearly 80% of the records come from owl pellets. Approximately 2500 prey items were analysed, of which dormice made up less than 1% of tlie mammals. The majority of pellets were of *Tyto alha* which preyed all the three species. The data on *Strix aluco* in this area are still poor (Boldreghini & Matteucci, 1985). Nevertheless some predated *M glis* were recorded both in southern and in western parts of the region. Predation of *M glis* and *E. quercinus* by *Bubo huho* was also recorded. although on the whole dormice represent a very small portion of the biomass consumed (Rigacci & Scaravelli, in press).

Eliomys quercinus (Fig. 2a) was recorded for 9 localities, 11.7 % of the territory. It was rare in owl pellets and only 3 specimens were recorded. Suitable habitats are woodlands, especially the extra-zonal Mediterranean maquis on hills (Scaravclli, in press) between 50 and 150 m a.s.l. with *Quercus peduncolata* coppices or dense shrub on dry rock walls. Only one specimen was found dead in a mixed deciduous woodland at about 700 m asl (PQ17).

Myoxus glis (Fig. 2b) is widespread on the Apennines and abundant in coppice and mature woods, from 50 to 1400 m a.s.l. The Edible dormouse is not present in the plain because now there are no suitable woodlands still remaining and there is

a lack of ecological corridors from the hills through a more or less continuously urbanised belt on the border of the Po valley.

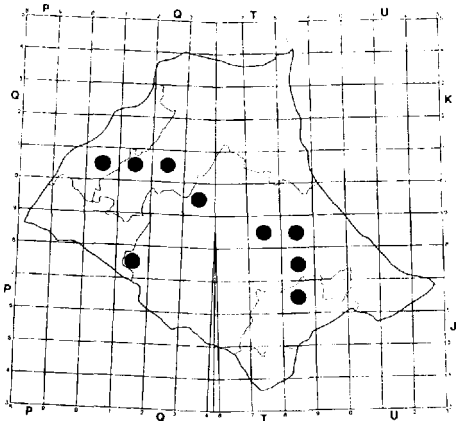

Fig. 2a. Distribution of *Eliomys quercinus.*

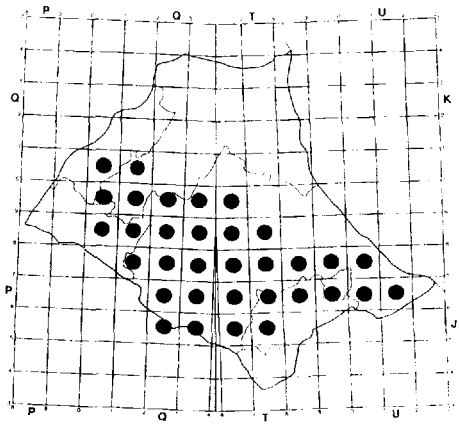

Fig. 2b. Distribution of *Myoxus glis.*

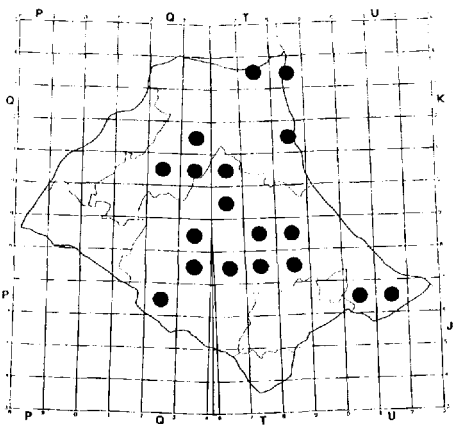

Fig. 2c. Distribution of *Muscardinus avellanarius*

This species uses buildings as refuges and nest sites, with some cases of injury to furniture and stored food. It was also found in many hypogeic systems (Scaravelli & Bassi, 1995) and in some nest boxes in a mixed woodland at about 1000 m a.s.l. It is the most common dormouse, being found almost everywhere from the hills up to the mountains and the records cover at least the 43% of the area.

Muscardinus avellanarius (Fig. 2c) was recorded for 18 UTM 10x10 km squares, 33% of the region. The Dormouse was found in deciduous coppice woodlands in the Apennines and on the plain in relict woods, riparian habitats and coastal pinewoods, from 0 to 1000 m a.s.l. It was also found inhabiting gardens around towns and dense shrublands and orchards on the hills. More common in the plain along well structured hedges in the recent past (Zangheri, 1957), it now appears to be declining in this part of the region. For other areas it is probable that the distribution shown here is an underestimate of its occurrence because of the methods used.

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