

THE NATIONAL DORMOUSE MONITORING SCHEME

RESULTS FROM KEY SITES: 1992

A principal objective of the Key Sites programme was to establish a network for regularly monitoring dormouse populations. It was also hoped to collect ecological data, on densities and breeding rates for example, that is needed for the conservation management of dormice. Monitoring was to be conducted by local volunteers and was designed to involve more people in dormouse conservation, so promoting awareness of the animal's needs.

This report summarises the information obtained from the first round of nestbox monitoring at Key Sites. All 24 sites were inspected in October, though eight (set up before 1992) had also been visited earlier in the summer. October was chosen as the month to begin inspections, as previous research has shown that the numbers of dormice found in nestboxes are invariably highest then and in June. These will be the prime months for future inspections, though we hope volunteers will be able to check nestboxes monthly throughout the summer.

RATE OF NESTBOX OCCUPATION

There has been a very high rate of nestbox use, even though nestboxes were not put up at several sites until late summer. Dormice have used nestboxes in 19 of the 24 Key Sites, an 80% success rate. Of the five sites where dormice have yet to use nestboxes, four were not established until July or August. Three of the sites are also on the edge of the dormouse's range (in Cornwall and Shropshire), where finding any suitable Key Sites was difficult. Dormice have been recorded at all the sites concerned, so use of nestboxes is expected in due course. However, on the basis of past experience, nestbox occupation will probably be erratic at some sites where dormice occur at particularly low population density.

Nestboxes appear to have been found and used by dormice very rapidly. For example a dormouse was discovered after only 22 days at Old Travellers Rest in Cumbria and several dormouse nests were found in boxes at Andrews Wood (Devon) after only two weeks. This suggests that nestboxes represent a very important resource for dormice and really are important aides in dormouse conservation.

DORMOUSE NUMBERS AND POPULATION DENSITY

It is obviously impossible to draw detailed conclusions from just the results of October's nestbox inspection. However, substantially larger numbers of dormice per 50 nestboxes were found at Spong Wood and Yockletts Bank than elsewhere (Fig. 1). These are two activity coppiced Key Sites in Kent, one of which

is likely to be the focus for the year-round ecological study planned as part of the Dormouse Initiative for 1993. This difference could be due to habitat or climate, but should at present be viewed with considerable caution. This is because numbers of adult dormice at sites can vary considerably between years. For instance in October last year there were only seven dormice per 50 nestboxes at Black Rock (a long established site in Somerset), but 18 per 50 nestboxes were present in 1987.

Such differences in numbers, which are known to closely reflect population density, are fundamental to understanding dormouse conservation needs. Much more information, from the planned ecological study in Kent and several years of nestbox monitoring, is needed to resolve which factors lead to these differences.

One further important result already evident is that the Cumbrian sites, Ulpha, Roudsea Wood NNR and probably also Old Travellers Rest, support much lower numbers of dormice (Fig. 1). Such a decrease in population density further north is exactly what would be expected if climate limits dormouse distribution.

PRODUCTIVITY OF YOUNG

Both adult and juvenile dormice were found in nestboxes at most new sites (Fig. 1). The ratio of adults to juveniles using nestboxes is likely to be a good indicator of the dormouse productivity. It might, in part, also reflect differential occupancy of nestboxes by juveniles, though past experience suggest this is unlikely; adults and juveniles have probably been sampled in proportion to their abundance. If this is the case - again only several years of monitoring will tell - then there are conspicuous differences in productivity between sites. Productivity appears to have been higher at base-rich sites and in southern England compared with Cumbria. There may be other geographical differences as well, but these cannot be resolved from the limited data currently available.

CONCLUSION

The Key Sites network is already producing information of great value to dormouse conservation, within months of its inception. Most sites now have dormice resident in nestboxes and others are likely to be occupied in 1993. It seems that there are major differences in population density and productivity of young between sites, which should, in time, tell us much of practical value for reintroductions and habitat management for dormice.

Fig. 1. Numbers of dormice per 50 nestboxes at each of 24 Key Sites in October 1992. Numbers of adult and juvenile (<=16g) dormice are shown. Nestboxes have yet to be used at five sites, and distinctive dormouse nests (N), but not the animals themselves, have been found at one site.

