

Estimating distribution changes and the conservation status of the dormouse in Luxembourg



## INSPIRATION

The dormouse (*Muscardinus avellanarius*) is listed in the Habitats Directive 92/43/EEC and is widespread in Europe however its conservation status and geographical distribution was largely unknown in Luxembourg due to its discrete behaviour and the absence of targeted surveys. To address the lack of data, the Luxembourgish government began funding a national monitoring scheme in 2010 to evaluate the conservation status of the dormouse and its dynamics. The dormouse is a discrete arboreal and nocturnal rodent living mainly in forests, forest edges, and hedges. Although it can exist in a variety of biotopes, it is highly dependent on the availability of shrub layer, food resources, light and nesting sites.

## INNOVATION

In 2010, LIST developed and initiated the coordination of a new field monitoring scheme tailored to dormouse ecology and to diverse environmental conditions found in Luxembourg. A total of 90 1km-resolution sampling squares, including suitable forest massifs for the species, were randomly selected across the country. Since 2010, each of these squares has been monitored every three years, between September and October. LIST staff and partners search for dormouse nests in the vegetation at sites considered favourable for the species within each sampling square. Detected nests (and dormouse individuals, when observed) are recorded along with the nest composition, vegetation structure, and other habitat parameters at the sites where nests are found.

## IMPACT

Data collected during the dormouse monitoring scheme is entered into the national database of the [Musée national d'histoire naturelle Luxembourg](https://www.mnhnl.lu/) (MNHNL). This long-term and large-scale dataset with dormouse records, based on a well-designed sampling approach and standardized data collection method, will provide baseline information for robust ecological analyses to estimate the nationwide distribution of the species, changes in its occupancy rate, and long-term population trends in Luxembourg. This monitoring scheme and dataset not only foster scientific interest in research on forest ecosystems and biodiversity, but also support policies related to nature conservation at national and European levels.

### Partenaires

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