

You are what you eat: on the diet of the Garden Dormouse

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Abstract

The Garden Dormouse is considered the most carnivorous species among Glirids. However, this information is based on small sample sizes. In order to develop conservation measures for this declining species, understanding its feeding ecology is crucial. In this context, we studied the diet of the Garden Dormouse in Germany using microscopic analyses of 1,000 faeces collected in different habitats over 3 years. We also examined 100 stomachs from fresh carcasses.

More than 90 % of all faeces contained food of animal origin, mainly arthropods, also annelids and molluscs, but rarely vertebrates. It was possible to identify most food items of animal origin to Order level, in some cases even the species was determined. Almost all faecal samples contained plant material, mainly vegetative parts of plants (74.5 %) but also generative parts (25.5 %). Fruits like raspberries, blueberries or blackberries play a role as food sources in late summer. Surprisingly, seeds are of secondary importance. Results from stomach analysis show a higher proportion of annelids and molluscs, but otherwise confirm the data from faecal samples.

Our results confirm that the Garden Dormouse is a generalist omnivore. It preys on a wide range of animals of different taxonomic groups, also many different plant species and parts. Due to the high proportion of food of animal origin, Garden Dormice are on a higher trophic level compared to other European dormouse species. They are, therefore, vulnerable to losses of arthropod biomass and sensitive to pesticide accumulation.

Keywords

In Search of the Garden Dormouse, feeding ecology, Arthropoda, fruits

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