

ACTIVITY PATTERNS OF COMMON DORMOUSE
(MUSCARDINUS AVELLANARIUS) IN THREE DIFFERENT
HABITATS IN CENTRAL ITALY

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The seasonal activity of the common dormouse, *Muscardinus avellanarius* (LINNAEUS, 1758) was studied in three different habitat types in Central Italy: a deciduous forest dominated by *Fagus sylvatica*; a deciduous oak woodland with *Quercus cerris* and *Q. pubescens*; an evergreen scrub-forest dominated by *Q. ilex*. The first site is located in the Lake Vico Regional Reserve (42°20'N, 12°11'E, 630 m a.s.l., about 40 km from the coastline), while the other two sites are both in the Presidential Estate of Castelporziano (41°44'N, 12°24'E, at sea level, about 10 km from the coastline). At each site, 50 nest-boxes were fixed to trees and were monitored monthly through two years (May 1998–April 2000). Every dormouse found in the nest-boxes was weighed (± 0.5 g), sexed, aged and marked on the abdomen with picric acid.

In the beech forest site, the species showed an annual biological cycle similar to that described for populations in central and northern Europe. The dormant phase occurred in winter, starting between the first ten days of November and the end of December, and so can last from 3–5 months. The end of hibernation occurred in the first half of April when dormice began to occupy boxes again. Reproduction occurred between May and July. In the two sites at Castelporziano a different yearly cycle of activity was observed. The nest-boxes were occupied from October to June and the breeding period was in autumn. In summer a three month (from July to September) interruption of activity was recorded: no dormice or new nests were observed in boxes which were occupied again in October. These results indicate that the dormant phase occurs in summer and we can suppose that the biological cycle of the common dormouse in Mediterranean habitats is characterized by a lack of hibernation due to mild winters, the presence of an aestivation period owing to dry summers, and reproduction in autumn.

In conclusion, two patterns of biological cycle emerged from the results: a mountain pattern in beech forest, and a Mediterranean pattern in coastal habitats.