

Who is waiting at the main entrance? Species composition and temporal dynamics of the use of underground cavern exits of Edible Dormice (*Glis glis*) by their potential predators

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Abstract

A diverse assemblage of reptiles, birds and mammals, ranging from the smallest to the size of the Brown bear, prey on the Edible Dormouse. Dormice are particularly exposed to predation while actively searching for food in the tree canopy. A much narrower spectrum of species can access dormice during their periods of inactivity, typically spent underground in burrows, caves and shafts. Entrances of underground caverns are frequently so narrow that they prevent the passing of larger predatory species. Dormice concentrate at such entrances/exits as many individuals use the same cavern. Their emergence is predictable and dormice are less agile on the ground than in the tree canopy. The exits therefore may act as efficient hunting spots for predators. However, we are not aware of any research addressing this.

The goal of our study was to document species composition of predators at the exits from caverns used by dormice. The entrances of 10 of these caverns in the Dinaric Mountains in Slovenia were continuously monitored by infra-red camera traps for the whole 2021 season, set to maximum sensitivity at 1.5 m from entrances.

We recorded 250 arrivals/departures of dormice from caverns and 480 recordings of 7 predatory species waiting at entrances: Stone/Pine Marten (266), Wild Cat (68), Fox (67), Domestic Cat (45), Badger (19), Brown Bear (17) and Wild Boar (4). Recorded predators were often alert and apparently controlled the exit which (in addition to the time of recordings) indicates, that they may have been there to prey on dormice. However, we did not record any predation.

Keywords

Edible Dormouse, predator composition, underground cavern exits, carst, Slovenia

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Conflicts of interest