

Abstract

In 2012 it was observed foraging ecology of the three males of greater mouse-eared bat (*Myotis myotis*), inhabiting individual roosts in the interior of road bridge near Bernartice, and the nearest nursery colony of the same species in the village Senožaty (district Pelhřimov). In the period April to September in Senožaty were made 14 collections at intervals of approximately 14 days and in the bridge near Bernartice at similar intervals were made 8 collections from each male in the period from May to September. From each collection were subsequently been analyzed 20 samples (pellets) by the traditional method of preparation of faeces. Overall it was from all the bats analyzed 760 samples, of which 280 from the nursery colony and 480 from males.

Based on the analysis was found diet composition of individual bats and of the colony, where the overall character of the trophic niche of the greater mouse-eared bat, seasonal dynamics in it's diet composition, sex differences and individual differences between males were observed.

From a point of view of it's hunting strategy the greater mouse-eared bat showed itself as a ground gleaner, in whose diet were dominated larger Coleoptera, of which the predominant component were large, flightless, mostly forest Carabidae, adding medium and smaller species of this family. Among other categories appeared significantly groups of Tipulidae, Geotrupidae, Orthoptera (Tettigoniidae) Araneida and predatory larvae of Coleoptera (probably also Carabidae). In total 19 arthropod taxa were detected, from Carabidae were detected 20 individual species. Of these, most generally dominated was *C. hortensis*, *C. violaceus* and *C. auronitens*. Significantly represented were still *P. burmeisteri*, *P. niger* and *C. nemoralis*.

Within seasonal dynamics of the above ingredients was found that the main hunting habitat of *M. myotis* is forest without undergrowth. However during the season uses occasionally probably also some other habitats, especially intensively cultivated orchards with cutted lawns, freshly cutted meadows, fields, etc., which exhibits food-opportunistic behavior. Moreover, seasonal dynamics of food items is generally largely depended on seasonal dynamics of abundance of these preferred food items in the habitat.

A similar phenomenon was observed when comparing the sexes among themselves, but with slightly different time and rate of utilization of the food supply and rarely differ also the preferentially hunted prey in these habitats. With the critical periods of the year, typical for both sexes in terms of their different reproductive annual cycle (pregnancy, lactation,

spermatogenesis), these events coincided only partially. Width of the trophic niche of the nursery colony was slightly higher than in males and overlap of these niches was approximately 50 %.

Finally, the individual variability of male subjects was compared, where the total difference of one male from the others was detected. However, individual variability in the diet of bats were generally large and proved to be a factor of similar importance, if not more important than sex.

Key words: *Myotis myotis*, diet composition, prey, analysis of bat droppings, ground beetles, Carabidae