Abstract

This work gives an overview of the composition of the diet of bats in the eastern Mediterranean and the Middle East, discusses the structure of bat communities in different bioregions of the area in terms of hunting strategies and resource partitioning and last but not least, how echolocation and morphological characteristics of bats affect the composition of the diet. Although some samples were relatively small therefore it is necessary to look soberly at their informative value, and thus their importance is undeniable. The study in some cases provides completely the first information regarding the composition of diet in several species. *Asellia arabica* mainly catches Coleoptera (Scarabaeidae), *Triaenops persicus* hunts Lepidoptera, but Heteroptera, Coleoptera (Scarabaeidae) and Orthoptera too, while *Triaenops parvus* is a specialist in hunting Lepidoptera. *Rhinopoma muscatellum* hunts mainly Formicoidea, followed by Coleoptera (Melolonthinae) and Heteroptera, *Rhinopoma hadramauticum* hunts Formicoidea. Lepidoptera of different size, Heteroptera and Coleoptera are the prey of *Chaerephon nigeriae. Pipistrellus hanaki* has a wide niche breadth as other species of the genus *Pipistrellus*. In this study Brachycera, Auchenorrhyncha and Coleoptera primarily occurred in its diet. Not yet described species of the genus *Pipistrellus* from the Dhofar in Oman has a wide niche breadth, but mainly hunts Formicoidea, Lepidoptera and Heteroptera. The diet of *Rhyneptesicus nasutus* is almost completely made up of Coleoptera (Carabidae, Elateridae, Tenebrionidae, Scarabaeidae). *Neoromicia guineensis* is a specialist in hunting Coleoptera. *Scotophilus colias* hunts Coleoptera (Carabidae, Melolonthinae, Curculionidae), Heteroptera and Blattodea. The study sites in the study area are divided into four bioregions - Mediterranean arboreal, Palearctic savanna, Afrotropical savanna and Saharo-Sindian eremial. The Saharo-Sindian faunistic elements and aerial hunting and hovering are the most common in the area. The analysis of echolocation and morphological characteristics and the composition of the diet mainly showed that the size of the species has a particularly strong influence on the composition of their diet and various body size of bats is an important factor for the resource partitioning.

Key words: bats, Chiroptera, diet, feeding ecology, trophic niche, resource partitioning, Eastern Mediterranean, Middle East.