The diet of the Little Owl, *Athene noctua*, in Israel

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Abstract. The diet of the Little Owl (*Athene noctua*) was studied in the area around Kibbutz Sde Eliyahu and Kibbutz Sha'alvim, Israel. During the study, 1070 and 1271 specimens were identified as food items, of which invertebrates accounted for 76.4% and 84.7% of specimens and 6.5% and 21.8% of biomass. Mammals were found in 93.2% and 73.4 of pellets, respectively, and invertebrates in 69.6% and 92.2 of pellets. Mammals accounted for 21.0% and 12.8% of prey by number, birds for 1.8% and 2.2%, reptiles for 0.7% and 0.3%, and insects for 67.2% and 77.7%. As in other studies from Europe, mammals were the most important prey group when biomass was calculated. Latitudinal trends of birds and Orthoptera in the diet of the Little Owl were found, whereas no trends were found in mammals, reptiles, invertebrates, and the insect orders Coleoptera and Dermaptera.

Kurzfassung. Im Gebiet der Kibbuzim Sde Eliyahu und Sha'alvim, Israel, wurde die Nahrung des Steinkauzes (*Athene noctua*) untersucht. Es wurden 1070 bzw. 1271 Nahrungsteile identifiziert, wobei Invertebraten 76.4% bzw. 84.7% der Beutestücke ausmachten, jedoch nur 6.5% bzw. 21.8% der Biomasse. Säuger wurden in 93.2% bzw. 73.4% der Gewölle gefunden, Invertebraten in 69.6% bzw. 92.2%. Gemessen an der Anzahl der Beutestücke hatten Säuger einen Anteil von 21.0% bzw. 12.8%, Vögel 1.8% bzw. 2.2%, Reptilien 0.7% bzw. 0.3%, und Insekten 67.2% bzw. 77.7%. Gemessen an der Biomasse stellten Säuger, wie auch in anderen Untersuchungen in Europa, die wichtigste Gruppe unter den Beutetieren. Es konnte gezeigt werden, dass der Anteil der Vögel und der Orthopteren im Beutespektrum mit der geographischen Breite korreliert. Ein solcher Trend besteht jedoch nicht bei Säugern, Reptilien und Invertebraten, sowie bei den Insekten-Ordnungen der Coleopteren und Dermapteren.

Key words. Little Owl, *Athene noctua*, pellet, diet, prey, latitude.

Introduction

The Little Owl (*Athene noctua*) is the most common owl in the Western Palaeartic, found between 20º and 50ºN, but its population is declining rapidly (GÉNOT & VAN NIEUWEHUYSE 2002). Food is one of the major factors limiting Little Owl populations (GÉNOT & VAN NIEUWEHUYSE 2002) and information on it is vital for science and for conservation. Pellet analysis, a method that accurately represents what owls consume, allows comparisons to be made both between and within areas. The diet of the Little Owl is well studied in Europe (see review by GÉNOT & VAN NIEUWEHUYSE 2002), but information from other regions and especially the Middle East is sparse (AL-MELHIM et al. 1997).

Little Owls are generalist predators that hunt both vertebrates (mammals, birds, reptiles) and invertebrates (CRAMP 1985). Differences in diet that have been reported between studies may be explained by differences in prey abundance and distribution. MIKKOLA (1983) has suggested that the increase in the proportion of insects in the diet of Little Owls from Central

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