

***Theba pisana* in pellets of an Israelian Owl**

by

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The roosts of two specimens of the Israelian Little Owl (*Athene noctua lilith* Hartert¹) were recently found in a little frequented part of the tree nursery of kibbutz Netser Sereni, Israel. Observations showed that the birds used to perch on a metal rafter at the end of the nursery, and also on a telephone-pole next to the nursery.

For an investigation of the diet of these owls 67 pellets were collected from under the roosts from April to June 1970. The pellets were of a greyish colour and the average size was 31 x 13 mm. Among the remnants of the prey we found many elytra of beetles, the bones of small rodents and also large numbers of shell fragments.

The shell fragments are very small and in most cases only 2-3 mm long. On account of two features, viz., a fine sculpture of transverse and spiral striae, and the white to pink colour of the fragments, we identified them tentatively as remnants of shells of the helioid snail *Theba pisana* (Müller). Our identification was confirmed by an almost complete shell in a pellet collected on June 5, 1970.

Theba pisana is widely distributed in the countries bordering the Mediterranean and along the coasts of western Europe (the northern limits are England and the southern part of Holland, where it has been recently introduced). In Israel it is one of the commonest snails, which occurs in very large numbers on the coastal plain. Populations of 250-750 specimens per square meter are commonly found in Netser Sereni (Mienis, 1970: 34). Harpaz & Oseri (1961) consider the species the worst among the economically important snails in Israel. In the tree nursery of Netser Sereni it is indeed a pest (Mienis, 1970a: 49).

1 According to Vaurie (1965: 609) *Athene noctua lilith* is distributed in the Sinai Peninsula, north to Palestine and Syria and east to Jordania. However, Harrison & Haim Hovel (1964) are of the opinion that more races are involved and that generally the position is more complicated.

The role of *Athene noctua lilith* as a predator of snails was as yet unknown. The record of Keve (1931: 117) of a shell fragment in one of 105 stomachs of Hungarian *Athene noctua noctua* (Scopoli) was based on wrong identification. According to Keve (in litt.) it was a fragment of a species of *Julus* (Diplopoda), thus not a mollusc at all. We found shell fragments in 25 pellets, i.e. in 36% of the collected material.

According to Dement'ev et al. (1966: 443) *Athene noctua* and its subspecies are predators of murine rodents, birds, and insects. According to the investigations of Hardy & Signals (1946: 29) *Athene noctua lilith* feeds on beetles and grasshoppers. Our study of the pellets confirms these statements. The following animals could be identified as prey species of *Athene noctua lilith* at Netser Sereni:

Mammalia: unidentified species of the family Muridae.

Insecta, Coleoptera: *Carabus impressus* (Klug), *Broscus laevigatus* (Dej.), *Dirosis dejeani* (Sol.), *Pimelia mittrei* (Sol.), *Alphitobius laevigatus* (F.); Orthoptera: *Gryllotalpa gryllotalpa* (L.).

Mollusca, Gastropoda: *Theba pisana* (Müll.).

As species of the mammal family Muridae, *Gryllotalpa gryllotalpa*, and *Theba pisana* are harmful to Israelian agriculture, *Athene noctua lilith* as a predator of these pest species can be considered a bird beneficial to farming in the Near East.

The owl pellets with the shell fragments have partly been deposited in the author's collection in the Zoölogisch Museum, Amsterdam, Holland. We are grateful to Dr. A. Keve (Budapest) for providing us with data and to Mr. H.E. Coomans (Amsterdam) for reading the manuscript.

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