

Additional notes concerning predation on landsnails by
 White-toothed shrews in Israel

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All records of predation on landsnails by White-toothed shrews (*Crocidura* spec.) in Israel are enumerated. In the wake of new information all cases of predation are attributed to the Lesser white-toothed shrew: *Crocidura suaveolens*, instead of to the (Greater) White-toothed shrew: *Crocidura russula*.

Several years ago Mienis (1987) published four cases of predation on terrestrial snails by White-toothed shrews in the neighbourhood of Kibbutz Netzer Sereni, Israel. In addition he identified the snails eaten by the same *Crocidura* species as reported by Rotery (1982 & 1983). A find of a landsnail in a pellet of a Barn owl: *Tyto alba*, in Kibbutz Netzer Sereni was also tracked down to a case of predation by a shrew (Mienis, 1991).

In all these cases the shrews were assigned to *Crocidura russula*. At least all the White-toothed shrews found in pellets of Barn owls and collected in Kibbutz Netzer Sereni in 1977-1979 were identified by Harrison (in litt.) as belonging to *Crocidura russula monacha*. The latter is also considered the most common species among the three White-toothed shrews supposed to occur in Israel (Harrison, 1964; Mendelsohn & Yom-Tov, 1987).

However, Catzeflis et al. (1985) have pointed out that *Crocidura russula* is a Western European species. Moreover they proved that the countries bordering the Eastern Mediterranean are inhabited by two species only: *Crocidura leucodon* and the rather polymorphic *Crocidura suaveolens*. Since all our material is far too small for *C. leucodon*, it is reassigned to the Lesser white-toothed shrew: *C. suaveolens*. Consequently all records of pedation on landsnail by (Greater) White-toothed shrews: *C. russula*, in Israel as reported by Rotery (1982 & 1983) and Mienis (1987 & 1991), are attributed here to the Lesser white-toothed shrew: *C. suaveolens*.

In the meantime several additional cases of predation on landsnails by this shrew could be recorded. All cases are enumerated in table 1.

Table 1.

Records of snails preyed upon by *Crocidura suaveolens* in Israel

Prey species	Locality	Date	Reference/Remarks
1. <i>Theba pisana</i>	?	?	Rotery (1982., 1983.)
2. <i>Theba pisana</i>	Netzer Sereni	5. I. 1982.	Mienis (1987)
3. <i>Monacha haifaensis</i>	Netzer Sereni	6. III. 1982.	Mienis (1987)
4. <i>Helix engaddensis</i> juv. <i>Monacha haifaensis</i>	Netzer Sereni	8. XI. 1982.	Mienis (1987)
5. <i>Euchondrus</i> cf. <i>ovularis</i>	Netzer Sereni	20. XI. 1982.	Mienis (1987)
6. <i>Monacha haifaensis</i>	Netzer Sereni	23. II. 1991.	Mienis (1991)
7. <i>Theba pisana</i> <i>Xeropicta vestalis joppensis</i> <i>Monacha haifaensis</i>	Netzer Sereni	21. III. 1991.	under cardboard in Avocado-orchard

Prey species	Locality	Date	Reference/Remarks
8. <i>Monacha haifaensis</i>	Netzer Sereni	7. II. 1992	under cardboard in Avocado-orchard
9. <i>Euchondrus septemdentatus</i> <i>Monacha obstructura</i>	„Nesher-Ramla”	26. III. 1992.	in pitfall
10. <i>Euchondrus septemdentatus</i> <i>Monacha obstructa</i>	„Nesher-Ramla”	19. IV. 1992.	in pitfall

The shrew caught in a pitfall near „Leshar-Ramla” on 19 April 1992 was taken home and kept for a few days in a terrarium. As food it was supplied with large numbers of small beetles and numerous snails: *Helix aspersa* (juveniles up to 20 mm in diameter), *Theba pisana* and *Monacha haifaensis*. All snails were readily taken by the shrew. Most if not all were crushed on one and the same spot resulting in a mound of broken shells in one corner of the terrarium.

According to these data the Lesser white-toothed shrew: *Crocidura suaveolens*, has to be considered an important natural enemy of grounddwelling landsnails in Israel. So far it has been recorded as a predator of seven different species under natural conditions and still an other one in captivity. The prey species are enumerated in table 2.

Table 2.

Systematic lists of landsnails preyed upon by *Crocidura suaveolens* in Israel

Family Enidae

1. *Euchondrus septemdentatus* (Roth, 1839)
2. *Euchondrus* cf. *ovularis* (Olivier, 1801) (this is probably a still undescribed species)

Family Helicidae

3. *Helix aspersa* Müller, 1774 (in captivity only)
4. *Helix engaddensis* Bourguignat, 1852.
5. *Theba pisana* (Müller, 1774)

Family Hygromiidae

6. *Xeropicta vestalis joppensis* (Schmidt, 1885)
7. *Monacha haifaensis* (Pallary, 1939)
8. *Monacha obstructa* (Pfeiffer, 1842)

Other records of predation on landsnails in Israel may be expected in the future.

References

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