

## Predation on *Limacus flavus* by *Haemopsis sanguisuga* in the Middle East

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Abstract: A first case of predation on the terrestrial slug *Limacus flavus* by the freshwater leech *Haemopsis sanguisuga* is reported from Ein Jawiza, Golan Heights.

Key words: Annelida, Hirudinea, *Haemopsis sanguisuga*, predation, Mollusca, Gastropoda pulmonata, *Limacus flavus*, Middle East.

During hydrobiological fieldwork in the spring of Ein, Jawiza, Golan Heights, on 11 June 1987, an interesting case of predation on a slug by a large leech was recorded. A large boulder laying partly in the water of the spring turned out to possess a cavity at the underside filled with air. This hole contained three specimens of the Yellow slug *Limacus flavus* (Linnaeus, 1758), Fam. *Limacidae*, with a length of respectively 11.3, 10.5 and 9.7 cm. In addition to the slugs there was even a larger specimen of an aquatic leech *Haemopsis sanguisuga* Linnaeus, 1758, Fam. *Hirudinidae*, with a length of 12.1 cm. The latter was seen to feed on one of the slugs. It had bitten a large hole at the dorsal side of the slug through which it was feeding on the internal organs.

In the laboratory the leech attacked almost immediately one of the other slugs when the were put together in a glass jar. It started the feeding action again by tearing a large hole in the dorsum of the slug.

According to Dresscher, Th. G. N.–Higler, L. W. G. (1982) this ferocious leech is known to feed on a large variety of invertebrates and vertebrates including terrestrial gastropods. In the literature we came across cases of predation on the following species: Amber snails of the family *Succineidae* (Frömming, 1955), the Common Garden snail *Cepaea nemoralis* (Linnaeus, 1758) (Frömming, 1954) and even adult specimens of the Roman snail *Helix pomatia* (Linnaeus, 1758) (Frömming, 1927). In the case it attacks species of the *Helicidae* (*Cepaea* and *Helix*) it has even to leave the water in order to hunt for a prey on the shore.

Since slugs are known to enter water often on a voluntary base (von Gelei, J. 1928; Künkel, K. 1930; Soós, L. 1927), *Limacus flavus* used the underwater cavity most probably as a place to aestivate during the long hot and dry summer. However, by acting so it created at the same time an excellent opportunity for a hungry leech to catch an easy prey.

According to our information this is the first time that *Limacus flavus* is recorded as a food item of *Haemopsis sanguisuga*.

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