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Herpetological Bulletin

DOI:

10.33256/hb158.46

Published: 01/12/2021

Publisher's PDF, also known as Version of record

Cyswllt i'r cyhoeddiad / Link to publication

Dyfyniad o'r fersiwn a gyhoeddwyd / Citation for published version (APA): Gandini, A. (2021). Predation of Vipera ammodytes by the Eastern Montpellier Snake (Malpolon insignitus). Herpetological Bulletin, (158), Article 46. https://doi.org/10.33256/hb158.46

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Predation of Vipera ammodytes by the eastern Montpellier snake Malpolon insignitus

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phiophagy in snakes is common and it seems to be a good option for a gape-limited predator. The prey is forced into the stomach in a concertina-like fashion so that it can fit into the predator's gastrointestinal tract; long thin snake-like prey apparently provide a bigger payoff per prey item (Wiseman et al., 2019).

In Europe, the eastern Montpellier snake Malpolon insignitus (Geoffroy Saint-Hilaire, 1827) is distributed from Croatia to eastern Greece, following the Balkan coast, and often lives in sympatry with the nose-horned viper, Vipera ammodytes and the Ottoman viper Montivipera xanthina. The eastern Montpellier snake is one of only two representatives of the species in Europe the other being Malpolon monspessulanus; neither species usually exceed 200 cm in length and both eat a wide range of prey including reptiles, birds, and mammals (Speybroeck et al., 2016). To date the two Malpolon spp have been recorded as predators of at least seven snake species (Corti et al., 2014; Amr & Disi, 1998; Safaei-Mahroo et al., 2017) and even cannibalism has been recorded (Ottonello et al., 2006).

On 21st August 2019 at 09:10 h on the road from Platani to Galatas, Peloponnese (342 m a.s.l.), the author observed a dead male Malpolon insignitus (Fig. 1). This had a V. ammodytes protruding from its gastrointestinal cavity. The

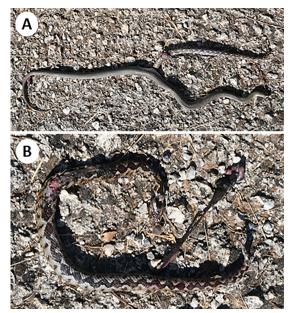


Figure 1. A road-killed Malpolon insignitus found with a Vipera ammodytes protruding from its intestinal tract A. The two snakes as they were found on the road, B. Close up of the V. ammodytes

viper had evidently been swallowed head-first. The length of the snakes were estimated to be about 120 cm (M. insignitus) and about 60 cm (V. ammodytes), suggesting that both were adults. The sex of the Malpolon was established by the everted hemipenes and by its dorsal colouration as Malpolon spp are sexually dimorphic (Speybroeck et al., 2016)

No differences in dietary spectrum have been recognised between Malpolon spp, not least because since 2006 they were considered the same species (Carranza et al., 2006). The current observation is the first record of a Malpolon sp preying on a viper. Given the similarity between the two Malpolon spp it might be expected that both consume vipers.

ACKNOWLEDGEMENTS

I am very grateful to Andrea Pozzi, Tom Major and Wolfgang Wüster (University of Bangor, Wales), who helped me writing this manuscript by giving their advice and reviewing it.

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Accepted: 13 November 2021