

## Predation of *Vipera ammodytes* by the eastern Montpellier snake *Malpolon insignitus*

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Ophiophagy 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

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.

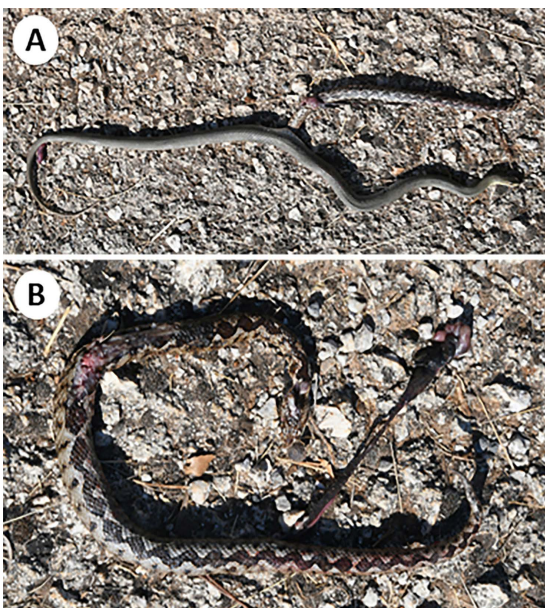
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**Figure 1.** A road-killed *Malpolon insignitus* found with a *Vipera ammodytes* protruding from its intestinal tract **A**. The two snakes as they were found on the road, **B**. Close up of the *V. ammodytes*