

Scientific note

Predation of European cave salamanders (*Hydromantes*) by the spider *Meta bourneti*

(Caudata, Plethodontidae; Araneae, Tetragnathidae)

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Hydromantes are fully terrestrial salamanders that regularly inhabit subterranean environments (Lunghi et al. 2015). Although *Hydromantes* are within the apex predators of subterranean environments, smaller salamanders can still represent a potential prey, especially for cave spiders of the genus *Meta*. Pastorelli & Laghi (2006) documented the predation on a juvenile of *H. italicus* by an adult *M. menardi* spider (Fig. 1A). *M. menardi* is a cave spider widely distributed in northern Italy (Mammola et al. 2020), often found in syntopy with the three mainland *Hydromantes* (Lanza et al. 2006). On the other hand, the spider *M. bourneti* is widespread in southern Italy, Sardinia included (Mammola et al. 2020), where it coexists with the other five *Hydromantes* species and with an introduced hybrid population in the south of Tuscany (Lanza et al. 2006). No cases of predation on *Hydromantes* by this cave spider have been documented to date.

During a survey performed in December 2020 we observed two juvenile *Hydromantes* (~4 cm of total length) caught in two *Meta bourneti* webs (Fig. 1B–C). The two webs, located at 20 meters from the entrance, were about 1 m far from each other, and at a height of ca. 0.5 m above the cave floor. Nearby first web there was a female spider, while in the second a male. This was the first observation reporting predation by *M. bourneti* on *Hydromantes* cave salamanders. Two predation events on juvenile salamanders occurred within the same cave and in close proximity to each other, indicating that this event may occur more often than previously thought (Lanza et al. 2006). Our observation provided the evidence that *M. bourneti* is an additional predator of *Hydromantes* (Lanza et al. 2006, Lunghi et al. 2018).

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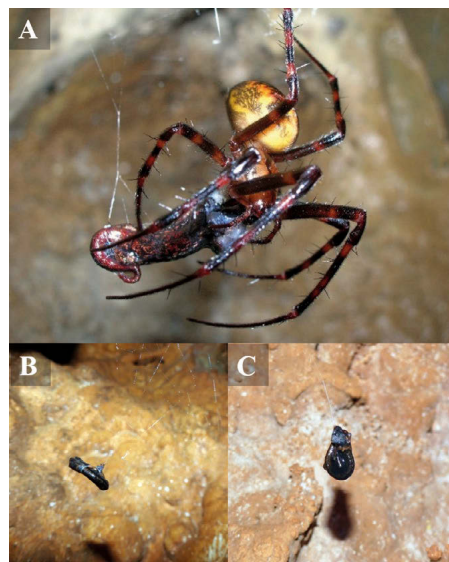


Fig. 1. A. Female of *Meta menardi* preying on a juvenile of *Hydromantes italicus*. B–C. Two juvenile hybrid *Hydromantes* predated by *Meta bourneti* spiders. Photos: Enrico Lunghi.

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