Saurophagy of a *Lacerta trilineata* juvenile by a *Podarcis muralis* adult

Saurophagy (from Greek *savr* - *savr*, «lizard», and *phagia* - *phagia*, “to eat what the first part denotes”, meaning lizard-eating) is common in some animal groups such as birds (Ríos-López et al. 2015) and snakes (Delaugerre 2011) and rather accidental in some others like amphibians (Nicolaou et al. 2014). Among lizards, some species may feed on other species of lizards (interspecific saurophygy) (Wall & Shine 2013), while, in extreme conditions where high population density and food scarcity may promote harsh competition (e.g. on islands), cannibalism (intraspecific saurophygy) may also occur (Cooper et al. 2015).

*Podarcis* lizards feed mainly on terrestrial arthropods, insects being the most common prey group (Pérez-Mellado & Corti 1993, Carretero & Llorente 2001). Herbivory and cannibalism are less pronounced in mainland populations compared to islands (Van Damme 1999, Pafilis et al. 2013; Sagonas et al. 2015). However, some species with wide distribution ranges (e.g. *P. erhardii, P. siculus*) are known for opportunistic choices, enhancing their diet with atypical prey items (e.g. Brock et al. 2014, Mačát et al. 2015).

The common wall lizard (*P. muralis*) (Laurenti, 1768) has the widest range among the genus *Podarcis*, occurring from southern Peloponnese in Greece up to southern United Kingdom and from Galicia in Spain to Turkey (Sillero et al. 2014). The diet of the species mainly comprises arthropods, among which the main prey taxa are Coleoptera, Homoptera, Diptera, Araneae and Isopoda (Capula et al. 1993). Cannibalism and ovophagy are an exception (Žagar & Carretero 2012, 2016). Our extensive survey of peer-reviewed literature yielded no records for the consumption of other lizards species by *P. muralis*. Here we report a case of interspecific saurophygy from Greece.

On 13 October 2015, during a field trip in central Greece (38° 88'16.08"N, 22'04'64.07"E) we observed an adult male *P. muralis* standing over a dead juvenile Balkan green lizard (*Lacerta trilineata*) (Bedriaga, 1886) (Fig.1a). After a while, *P. muralis* started to consume the carcass (Fig.1b). Though reptiles typically ingest their prey starting from the head, in this case the common wall lizard commenced eating *L. trilineata* from the rear end (Fig.1c). With rough movements of the head, *P. muralis* engulfed its prey (Fig.1d, e). The process of until complete consumption lasted around 3.5 min (Fig.1f). As we did not witness the cause of death of the *L. trilineata* individual, we can only stipulate whether the juvenile lizard was killed by *P. muralis* or not. In the latter case, this saurophagy is also a case of scavenging (Pianka 2000).

Though interspecific saurophygy has been repetitively reported in other continents (e.g. Blamires 2000, Zanchi et al. 2012, Passos et al. 2016), it is less frequent within European species (e.g. Pelitteri-Rosa et al. 2015, Dias et al. 2016). To our knowledge, this is only the second report of a *Podarcis* species preying on a different species of lacertid (Dias et al. 2016). This record enhances our knowledge on the feeding biology of the most common lizard in Europe. More similar observations will shed further light on the general ecology of the genus and lizard interactions.
References


Key words: lizard-eating, feeding ecology, Podarcis muralis, lacertids, Greece.

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Footnotes

Podarcis muralis, Greece.

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Figure 1. Consumption of juvenile Lacerta trilineata by a male Podarcis muralis in a period of 3.5 minutes.