

An unusual preying record of *Anatololacerta anatolica* (Werner, 1900) (Reptilia: Lacertidae)

Feeding is a complex and important metabolic process that attracts lots of research in reptilian studies (Castilla et al. 1991, Urbani & Bels 1995, Sagonas et al. 2015). Its physiological aftermaths may affect digestive processes that, in turn, may have important ecological consequences (Waldschmidt et al. 1986). Food preferences are related to numerous biological functions such as reproduction, energy flow, and digestion. Particularly in the case of females, effective control of body temperature, hormones, and feeding behavior is required for efficient reproduction (Waldschmidt et al. 1986, Castilla et al. 1991, Pafilis et al. 2007). Most European lizards feed on arthropods (with main prey groups Coleoptera and Orthoptera); thus, arthropod abundance may affect their reproduction (Pafilis et al. 2007, Sagonas et al. 2015).

The Anatolian Rock Lizard (*Anatololacerta anatolica*) (Werner, 1900) is an insectivorous lacertid (Langerwerf 1980, Pough 1973). The species' taxonomic status remained controversial for many years, and it is currently included in the genus *Anatololacerta* (Bedriaga 1879, Eiselt & Schmidtler 1986, Arnold et al. 2007, Bellati et al. 2015, Karakasi et al. 2021). *Anatololacerta anatolica* is distributed in Western Anatolia, north of Büyük Menderes as far as Bursa and east to Central Anatolia, recorded at an altitude of up to 1 600 m while it also occurs on Ikaria and Samos Islands (Eiselt & Schmidtler 1986, Arnold et al. 2007, Budak & Göçmen 2008, Bellati et al. 2015, Lymberakis et al. 2018). In this report, I discovered a pregnant female, *A. anatolica*, while it was eating the tail of a Snake-eyed Skink (*Ablepharus kitaibelii*) (Bibron & Bory, 1833).

During a field trip in Bozdağ/Izmir, Turkey, in June 2020, I came across a pregnant female *A. anatolica* (38°19'55"N, 28°06'33"E, WGS 84, 1,556 m a.s.l., Fig. 1). The weather was partly cloudy, and the temperature was 25-30 °C. I photographed the specimen and its habitat with a Canon 1100D camera and determined its sex by looking at the femoral pores in the ventral part of the hind legs and the coloration in the gular region (Fig. 2). It had a bloated abdomen due to pregnancy and also carried a few ticks. I noticed the tip of a tail in its mouth and captured the moment in a photograph (Fig. 3). I took the lizard in my hand to look closer. After a while, the lizard vomited the tail. The animal was calm and did not make much effort to escape. After the observation, it was released to the exact place of capture. I collected the shed tail and identified it, based on pholidosis characters and external morphology, as belonging to a specimen of *A. kitaibelii*. In the broader area, I also encountered *Lacerta trilineata* (Bedriaga, 1886), *Ablepharus kitaibelii* (Bibron & Bory, 1833), and *Montivipera xanthina* (Gray, 1849) that live in sympatry with *A. anatolica* in Bozdağ.

In lacertids, differences in food preferences depending on sex have been reported in several cases (Van Damme et al. 1995, Herrel et al. 2001, Verwajen et al. 2002). Feeding rates are accelerated by late May and reach their highest values in June as a direct response to the increased energy demands due to reproduction. Female lacertid species feed on spiders more than males, especially during June and July (Pough 1973, Valakos 1986, Simovic & Markovic 2013, Vitt & Caldwell

2013). Interestingly, the reported incident of saurophagy was observed in June, exactly in the period when females have to regulate their energy income to fuel reproduction (Waldschmidt et al. 1986).



Figure 1 Map of the location where the feeding was observed



Figure 2 Habitat of *Anatololacerta anatolica* in Bozdağ, Izmir, in Turkey



Figure 3 *Anatololacerta anatolica* specimen while eating *Ablepharus kitaibelii* (a and b), *Anatololacerta anatolica* and *Ablepharus kitaibelii* tail after vomiting (c)

Although most lizards of the family Lacertidae are insectivorous, several deviations from this main pattern have been described. Herbivory is quite common, especially among insular populations (Perez-Mellado & Corti 1993, Van Damme 1999), while frugivory and ovophagy are also known (Brock et al. 2014, Zagar et al. 2016). Another rarer feeding

strategy is saurophagy, the consumption of lizards. Pough (1973) stated that even though most lizards are insectivorous or herbivorous, feeding on other lizards would be feasible if the targeted prey items were energy-rich. Saurophagy in lacertids includes cases of cannibalism, that is, consumption of conspecifics (Castilla & Damme 1996, Pafilis et al. 2009), but also preying upon other lizards (Dias et al. 2016, Andriopoulos & Pafilis 2019). This is the first record of interspecific saurophagy in *A. anatolica*. The feeding ecology of reptiles, and lizards, is an important topic, and further studies are needed (Perez-Mellado & Corti 1993, Brock et al. 2014).

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