

# Wasp spider *Argiope bruennichi* preys on a juvenile viviparous lizard *Zootoca vivipara*

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Predation is the primary cause of death among lizards (Vitt & Caldwell, 2014); they fall prey to certain species of both vertebrates and invertebrates (Jehle et al., 1996; Valdez, 2020; Nyffeler & Gibbons, 2022). In the case of invertebrate predators, they generally target juvenile lizards and/or those with small body sizes (Vitt & Caldwell, 2014). In the case of wasp spiders (*Argiope* spp.), small lizards are considered rare and unusual prey (de Armas & Alayón, 1987; Pantoja & Pinya, 2020; Turner, 2018).

*Zootoca vivipara* (Lichtenstein, 1823) is a widely distributed Eurasian lizard that is commonly found in a wide range of habitats. The viviparous lizard's diet consists mainly of small invertebrates (Speybroeck, 2018). The wasp spider *Argiope bruennichi* (Scopoli, 1772) is a widely distributed species found in most of Europe and central to east Asia (WSC, 2024). It inhabits various grassland habitats, building a typical orb web with a centrum stabilimentum among herb vegetation, usually near the ground. *Argiope bruennichi* is a generalist predator, with insects, mainly grasshoppers (Pasquet, 1984), being its usual prey.

On 17 August 2020, we observed the body of a juvenile *Z. vivipara*, poorly enveloped in silk, in the web of a wasp spider; the female spider was at the edge of the web feeding on the lizard (Fig. 1). We did not observe the capture of the lizard but did watch the spider for several minutes in which time it was biting various parts of the lizard's body, especially the tail, and feeding on it. The observation was made at Natural Reserve Baroch (50° 5'39" N, 15° 46'56" E; 225 m a.s.l.) in the eastern Bohemia region, Czechia. The locality consists of wetlands with reed growth, wet meadows and remnants of old ponds.

Possibly the first record of juvenile *Z. vivipara* as prey of *A. bruennichi* was a photograph of the lizard in the spider's web in Great Britain (Mayer, 2014); the wasp spider is a recent introduction to Great Britain. In Ireland, the non-native spider *Steatoda nobilis* has been observed preying on a juvenile *Z. vivipara* (Dunbar et al., 2018). In this case, the body of the lizard was densely wrapped in silk with the limbs aligned along the anterior to posterior axis of the body, suggesting that the spider actively wrapped the lizard in silk with the intent to trap it. In the case we have observed, it cannot be definitively concluded whether the spider actively trapped and killed a healthy lizard or was presented with an already weakened, possibly dead, lizard.



**Figure 1.** Female wasp spider *Argiope bruennichi* feeding on juvenile viviparous lizard *Zootoca vivipara*

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