

# Smooth newts *Lissotriton vulgaris* as more than just occasional items in the diet of the Eurasian kingfisher *Alcedo atthis*

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Smooth newts *Lissotriton vulgaris* are a widespread and common newt species found throughout Europe, growing to approximately 11 cm in length (Speybroeck et al., 2016). The species is widespread in Great Britain and is well adapted to urban environments, often being observed in garden ponds (Beebee & Griffiths, 2000) and may also inhabit natural ponds, lakes, and slow-flowing streams (Speybroeck et al., 2016). In February or March, adults enter water to breed and by July most have left water for terrestrial habitats, although some remain in water until September or October and then leave to locate hibernation sites in the terrestrial environment. Metamorphs remain on land until they are sexually mature.

The Eurasian kingfisher *Alcedo atthis* is an unmistakable blue bird found throughout Eurasia, that may grow to 16 cm in length (Fry & Fry, 2010). The species inhabits clear, slow-flowing streams and rivers, ponds and lakes where they tend to perch on branches and rushes, near open water within a few metres of the surface (Fry & Fry, 2010). The majority of the diet of the Eurasian kingfisher is freshwater fish (Raven, 1986; Reynolds & Hinge, 1996). However, other prey items are occasionally taken including aquatic invertebrates and amphibians such as the pool frog *Rana esculenta*, fire-bellied toads *Bombina* sp., and newts (Čech & Čech, 2015; Novčić & Simonović, 2018), although such instances are apparently rare (Fry & Fry, 2010; Čech & Čech, 2015). When diving for prey, kingfishers usually reach depths of less than 25 cm, and on removal from water the prey is beaten head first on a hard surface until subdued, after which they are swallowed head first (Fry & Fry, 2010).

On 31 October 2022 at 10:44 h, a male Eurasian kingfisher was videoed by a trailcam (Browning Defender BTC 9-D) feeding on a smooth newt (Fig. 1) that it had caught in a pond at Cory Manor, West Putford, Devon. Throughout the next two days the kingfisher was videoed a number of times catching more smooth newts at the same location, and feeding upon them on a wooden jetty where they were subdued (BHS video, 2023). Before the trailcam was set up, the kingfisher had been observed to capture and consume 11 smooth newts in a single day, prompting further investigation of this behaviour.

The pond where the newts were caught was 180 cm at the deepest point, with the kingfisher catching them from a part of the pond that was approximately 120 cm deep, indicating that the newts were active within the water column. These observations provide the first evidence of smooth newts as more than purely occasional items in the diet of the Eurasian kingfisher.



**Figure 1.** Frame taken from video footage (slightly blurred) of a male Eurasian kingfisher *Alcedo atthis* feeding on a smooth newt *Lissotriton vulgaris* in the grounds of Cory Manor, West Putford, Devon, England (for more details see [BHS video, 2023](#))

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