

## Observations on the climbing behaviour of the smooth newt *Lissotriton vulgaris* and great crested newt *Triturus cristatus* in south-east England

VANESSA J. LYNN<sup>1\*</sup> & STEVEN J.R. ALLAIN<sup>2</sup>

<sup>1</sup>Sussex Amphibian and Reptile Group

<sup>2</sup>Cambridgeshire & Peterborough Amphibian and Reptile Group

\*Corresponding author e-mail: [vanessa.lynn@btinternet.com](mailto:vanessa.lynn@btinternet.com)

The smooth newt (*Lissotriton vulgaris*) is a widespread amphibian species found throughout western Europe, and is the most common newt species encountered in the British Isles (Speybroeck et al., 2016). Smooth newts can grow up to 11 cm long and can be found inhabiting a variety of aquatic and terrestrial habitats. The great crested newt (*Triturus cristatus*) is found throughout northern Europe, and is the largest newt species found in Britain, measuring up to 16 cm long (Beebee & Griffiths, 2000; Speybroeck et al., 2016). Most individuals of both species leave aquatic habitats in June, and the adults then return to water in February for the breeding season (Beebee & Griffiths, 2000). It is during this post-breeding dispersal that newts are most likely to be encountered in terrestrial habitats.

At 21:30 h on 7th October 2021, during an amphibian survey at Grosvenor and Hilbert Park, Tunbridge Wells, Kent (51° 08'29" N, 000° 16'15" E), 15 smooth newts (12 adults and 3 juveniles) were seen positioned on the foliage of several ferns at between 15 cm and 50 cm off the ground (Fig. 1). Two of these dropped out of the ferns, before they could be photographed in-situ. The air temperature was 15 °C, the humidity was 96 %, and the wind speed was 3 mph S. Within a 100 m radius of the location of these ferns, more than 90 smooth newts were observed actively foraging on the ground and in the crevices of a nearby stone wall. All individual newts remained still when initially observed on the foliage, but many began moving when exposed to torchlight. Newts were seen on the following fern species: lady fern (*Athyrium filix-femina*), male fern (*Dryopteris filix-mas*), and Japanese lace fern (*Polystichum polyblepharum*). The latter species is an ornamental fern, not native to Britain, often planted in rock gardens.

On the mild and still evening of our observation, numerous gastropod species, such as the leopard slug (*Limax maximus*) and white-lipped snail (*Cepaea hortensis*) and insects, including the black clock beetle (*Pterostichus madidus*), were also active, and it is likely that the newts were feeding upon them.

Two other observations of newt climbing-behaviour have been recorded previously by the second author. The first in March 2014, during a routine amphibian survey in central Cambridge (52° 12'55" N, 000° 08'37" E) involved a female *L. vulgaris* found climbing in cow parsley (*Anthriscus*



**Figure 1.** Four smooth newts *Lissotriton vulgaris* (indicated by arrows) observed climbing on ferns in south-east England

*sylvestris*) (Fig. 2). The second in April 2015, during a routine amphibian survey in Peterborough (52° 32'25" N, 000° 16' 55" W) when a female great crested newt (*T. cristatus*) was found climbing a stinging nettle (*Urtica dioica*) (Fig. 3). Both of these observations were made in the evening, during favourable conditions for amphibians, i.e. damp weather with air temperature above 10 °C. On both occasions, these



**Figure 2.** A female smooth newt (*Lissotriton vulgaris*) scaling cow parsley (*Anthriscus sylvestris*) in south-east England



**Figure 3.** A female great crested newt (*Triturus cristatus*) found climbing a stinging nettle (*Urtica dioica*) in south-east England

individuals were the only newts found to be climbing among vegetation. Previous records of climbing behaviour in *L. vulgaris* and *T. cristatus* have been confined to Denmark and Germany, where it is suggested that the behaviour is likely linked to foraging, rather than having resulted from parasitic infection that might alter newt behaviour, but the latter cannot be ruled out (Bringsøe, 2013). Climbing behaviour seems not to have been observed in other Palearctic newts, although it has been recorded in other families, especially plethodontid salamanders (Jaeger, 1978).

This is the first report from Britain of climbing behaviour by *L. vulgaris* and *T. cristatus*. Neither observation was of true arboreality, as the newts were found among non-woody plants and polypodiophytes. Nonetheless, our observations suggest that climbing behaviour in newts is potentially an important consideration when undertaking ecological surveys, as active newts may be missed if terrestrial habitats are not searched thoroughly.

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