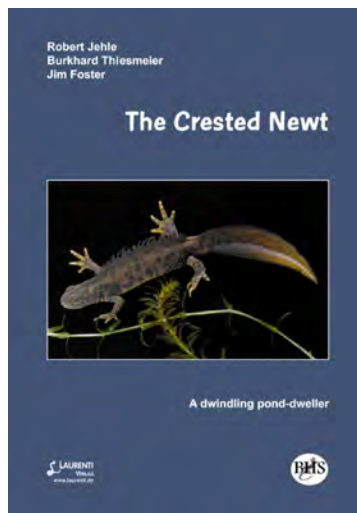


The Crested Newt. A Dwindling Pond-Dweller

Robert Jehle, Burkhard Thiesmeier and Jim Foster

Laurenti-Verlag and the BHS, 152 pp



This A5-size book, published jointly by Laurenti-Verlag and the BHS, draws on the large body of research into the crested newt. It provides an English translation and update of two editions of the German publication *Der Kammmolch – ein 'Wasserdrache' in Gefahr* (Thiesmeier & Kupfer, 2000; Thiesmeier et al., 2009). This is helpful to herpetologists who cannot read German, opening up a wealth of previously inaccessible literature. This latest edition includes input from a British author, notably a chapter on conservation and management in the UK. It is, nevertheless, still a few pages shorter than its predecessor. Certainly some illustrations have been dropped.

After a one-page introduction, Chapter 2 gives descriptions of the crested newt species, including information on distribution and habitat. Although formerly regarded as a single species (*Triturus cristatus*) *The Crested Newt* describes six separate species, adding *T. arntzeni* to the five recognised in the previous edition and acknowledging that genetic differentiation within *T. karelini* is sufficiently great that further splitting may still be on the cards. Due to the large international range of *Triturus cristatus* (which includes the UK) and a longer history of interest in this particular species it gets the lion's share of attention in this chapter and throughout the publication. This section

includes an examination of detailed distribution, entering the turbulent waters of estimating national population size in the UK.

Chapter 2 also includes information on habitats, recognising the much greater understanding of aquatic rather than terrestrial phases of life. Among plentiful natural history information I noticed reference to Precht (1951) (p. 46) that *T. cristatus* needs the presence of submerged plants as a prerequisite to produce eggs. Is this really true? Are there really no other more recent observations of great crested newts egg-laying and breeding in water bodies devoid of submerged aquatic vegetation? Precht's work popped up for me again (p. 87) reporting observations of great crested newts apparently showing submissive postures (lying flat) after threats from larger males. Really? I enjoy going back to older literature and I would love to read Precht's work. But as I don't read German this little book is the next best thing.

Chapter 3 provides an account of the annual activity of crested newts. The chapter title 'A complex life cycle' is used to describe variations on a generalised pattern. But the authors take the terminology from Wilbur (1980) who clearly states that 'complex' refers to life cycles in which there are distinct stages with different morphology, physiology and behaviour. This is certainly true of amphibians, but the terminology is misused in the current publication. In spite of this the chapter provides useful information on the timing and direction of migrations between land and water, the length of time spent in the water, breeding site fidelity, feeding and egg-laying behaviour and larval ecology. I was interested to read of the electroreceptive ability of great crested newts as this is something new to me. The authors, however, give no specific reference to back this up.

The crested newt is unusual in that juveniles can sometimes be aquatic rather than wholly terrestrial as is the case in other European newts. The section dealing with this cites Bell (1979) reporting 0-71% of aquatic captures in a

pond being immature, whereas he in fact reported on variation between several ponds (actually a better demonstration of the point being made). This minor inaccuracy could easily have been an error of translation, but the authors further mistakenly cite Bell making reference to palmate newts when in fact he confined his work and comments to smooth and great crested newts.

Chapter 3 also includes a section on life on land, noting that crested newts spend about two-thirds of their lives there. This is an important point because our knowledge is biased towards the briefer aquatic life stages. In fact I would argue that the subtitle of this publication is unhelpful in that it reinforces this discrepancy by describing the crested newt as a pond-dweller. I would also have included Halliday & Verrell (1985) in the section on autumn migration as, although dealing with only a small number of newts at a single pond, they were probably the first to document this phenomenon in *T. cristatus* in the UK.

Chapter 4 deals with mating and reproduction and Chapter 5 covers population dynamics, including reference to metapopulations. Chapter 6 'Field methods' provides an overview of marking, pattern mapping, radio tracking, genetic methods and the habitat suitability index. Possibly due to limitations of space, these accounts are not sufficiently detailed to provide practical guidance on usage, but this can be found in the publications cited and will be well known to herp workers in the UK.

The final chapter includes new material and covers conservation and management of the great crested newt in the United Kingdom. It provides a succinct summary of our understanding of population trends, threats to the species, conservation measures and mechanisms, the organisations involved in great crested newt conservation and the policy framework that drives it all. For readers who may be surprised to see the UK held up as an example of how to conserve great crested newts there is also recognition of shortcomings. For example the designation of a series of protected sites (Special Areas of Conservation are required under the Habitats Directive) is of limited use as a measure to conserve a widespread (but declining) species. Furthermore, the broad range of landowners required to make a

difference to great crested newt conservation status may be discouraged from doing so due to the strict legal protection of the species, which is widely regarded as restrictive to other interests. Widespread, proactive measures, potentially delivered through agri-environment schemes may be more effective. Similarly, there are accounts of some effective development mitigation projects, but also acknowledgement that mitigation is beset by a range of problems and there is recognition that a fundamental shift in approach may be needed to improve outcomes more generally.

The book is well illustrated, with many colour and black and white photographs and a great deal of graphed data reproduced from the original research publications. High quality colour plates illustrate five of the species, different life stages and habitat. Perhaps due to the practicalities of production these are confined to a single block in Chapter 2. There are a few typographical errors and even fewer internal inconsistencies. For example Table 2.2, summarising the distinguishing features of the crested newt species, describes the ventral blotches of *T. cristatus* as small and roundish whereas Fig. 2.2 and plates 2, 6 and 7 illustrate that they are a range of sizes and irregular shapes.

The glitches are minor, though, in this otherwise thorough and useful publication, drawing together a large amount of research and making German literature more widely accessible. The authors' stated intention is to assist in conservation. In reality many conservation practitioners in the UK may be more readily served by practically orientated handbooks (e.g. English Nature, 2001; Langton et al., 2001). But for those wishing to learn more about the natural history of the crested newt then this is an excellent publication and it is pleasing to hear that some ecological consultants are using it as a reference.

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