

## **CRESTED NEWT RESCUES: HOW MANY CAN BE CAUGHT?**

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### **BACKGROUND**

Despite "protection" under the 1981 Wildlife & Countryside Act, Crested Newt ponds are still destroyed at a significant rate in Britain. One response to this problem has been the "rescue operation", during which as many newts as possible are caught and transferred to some other site before the pond is lost. Early in 1990, plans were finalised for what seemed to me to be an extravagant road improvement near Newhaven, in East Sussex; this work necessitated the infilling of a small pond identified a few years earlier as containing Great Crested Newts. As part of the plan, the BHS (in my persona) was commissioned by the County Council to catch and move as many newts as possible and to be present to take away remaining newts when the pond was pumped dry. This generally depressing situation did at least provide an opportunity to see just how efficiently newts can be caught under these circumstances, and this article recounts the results of my efforts.

### **THE SITE**

The pond in question was virtually circular, about 15 metres in diameter, perhaps 1 metre deep in the middle (classically "saucer shaped") and set in unimproved pasture. It was one of several in the immediate vicinity with Crested Newts, and happily the only one to perish in the roadworks. Fairly dense beds of Flote Grass covered most of the pond, except for the deepest central region where there were abundant submerged plants such as Water Parsnip.

I was given one week's notice to catch newts before the pump-dry date. My strategy was: (1) To examine submerged plant leaves for newt eggs; (2) To carry out a preliminary torch survey to get some idea of newt numbers; (3) To net the submerged vegetation as vigorously as possible; (4) To set bottle-type newt traps every evening (10 altogether, about 1 per 4 metres of bank) and collect newts the next morning; and (5) To catch newts by net and by hand during the pump-out operation.

### **THE RESULTS**

Inspection revealed many Crested Newt eggs on the Water Parsnip leaves, but the much more abundant Flote Grass was apparently unused. Interestingly, torch survey failed to show up any newts at all; although the water was clear, vegetation was just too dense for the method to be useful. A single extremely vigorous(!) netting session, on a warm day in mid March, produced just 5 Smooth Newts (Table 1). However, subsequent trapping revealed a very different picture with Crested Newts turning up in substantial numbers and outnumbering "smoothies" on almost every occasion. At the end of the week, about twice as many Crested as Smooth Newts had been caught. Draining the pond took almost an entire day, and used a pump with a mesh filter to ensure that no newts were sucked out unseen. Finding newts stranded as the water level dropped was straightforward, and it seems unlikely that many, if any, were missed. This operation yielded rather more Smooth newts than Crested, but overall the larger species was numerically superior in the pond by a small margin.

Trapping selected quite strongly for male Crested Newts, as expected with this method (Table 2), but strangely did not show this sex bias with Smooth Newts. This was contrary to general experience, including my own in other ponds. In part it presumably reflected the fact that female Smooth Newts outnumbered males in total (56 & 37 respectively), whereas the converse was true of Crested Newts with 56 males and 46 females. It was also interesting to note that a week's trapping caught about a quarter of the Smooth Newts present in the pond, but exactly half of the Crested Newts. It also had a significant impact on the sex ratio of the Crested Newts, taking out nearly two thirds of the males but only one third of the females.

**TABLE 1: NEWTS FROM DENTON POND**

|                      | SMOOTH | GREAT CRESTED |
|----------------------|--------|---------------|
| No. NETTED : Male    | 1      | 0             |
| Female               | 4      | 0             |
| Total                | 5      | 0             |
| No. TRAPPED: Male    | 6      | 36            |
| Female               | 14     | 15            |
| Total                | 20     | 51            |
| No. LEFT: Male       | 30     | 20            |
| Female               | 38     | 31            |
| Total                | 68     | 51            |
| GRAND TOTAL IN POND: | 93     | 102           |

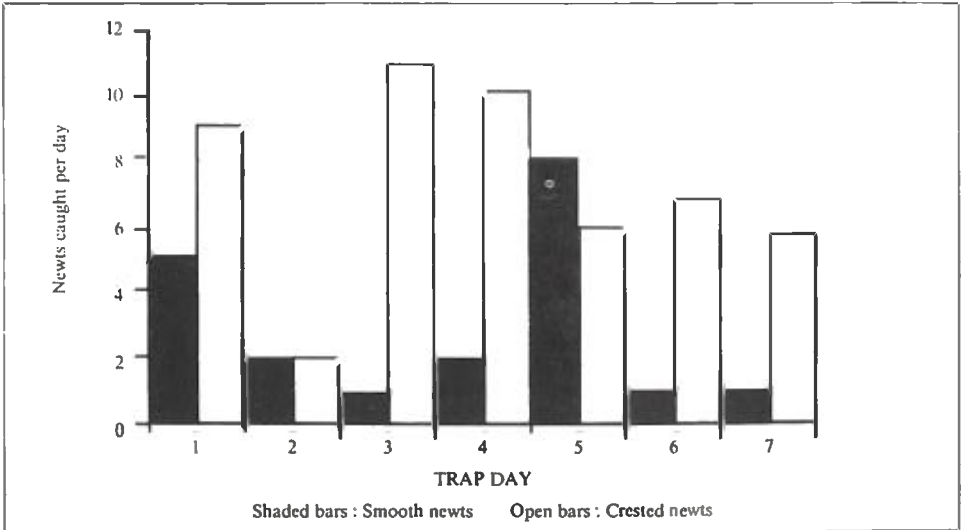
**TABLE 2: CATCH PATTERNS**

|                       | SMOOTH NEWTS | CRESTED NEWTS |
|-----------------------|--------------|---------------|
| SEX RATIOS (M/TOTAL): |              |               |
| - OVERALL             | 0.40         | 0.55          |
| - BY NETTING          | 0.20         |               |
| - TRAP (AVERAGE*      | 0.48         | 0.74          |
| (TOTAL                | 0.30         | 0.71          |
| - LEFT IN POND        | 0.44         | 0.40          |
| % CATCH:              |              |               |
| - BY NETTING          | 5            | 0             |
| - BY TRAPPING         |              |               |
| Male                  | 16           | 64            |
| Female                | 25           | 33            |
| Total                 | 27           | 50            |

\* Ascribing ratios when females were caught but no males to a value of 0.

Figure 1 shows how the trap catch rate varied through the seven days. Smooth newt catches were erratic and showed no obvious trend; this was equally true if the sexes were examined separately. Crested Newt catches were consistently higher in the first part of the week than in the latter, excepting for night 2 which followed a particularly cold day. Weather throughout the rest of the week (during mid-March) was remarkably constant, with warm sunny days but cold, occasionally frosty nights. When examined separately for sexes (not shown), the change mainly reflected a fall in male catches; numbers of females caught showed no clear pattern, with the largest single catch (5) taken on night 6.

FIGURE 1: RATES OF CATCH



### CONCLUSIONS

A striking feature of this pond was that two mainstream survey methods – netting and torching – failed dismally to show the presence of Crested Newts at all. On the other hand searching for eggs on plant leaves, a technique propounded by an active group in south Lancashire, proved extremely valuable as a simple demonstration of the species' occurrence. Bottle trapping not only confirmed the egg search indications, but was impressive in catching exactly half of the Crested Newt population within a single week. The traps were placed in the Flote Grass within a metre of the pond edge, so presumably the Crested Newts stayed in deep water during daytime but ventured into the shallows at night. Trapping during the day yielded no catches at all. Weather conditions were such that continued immigration during the trapping period was very unlikely, and the population sizes can probably be taken as roughly constant throughout. Of course the numbers of newts that might have come in later remain unknown, but after such a mild winter I suspect that most were already in place by mid March. Certainly numbers in my own garden ponds were apparently up to full strength long before that time, with first sightings before Christmas.

These observations indicate that a more sustained trapping programme, perhaps for two or three weeks under good weather conditions, might almost empty a pond of Crested Newts. This is perhaps good news for rescues, but a little worrying from the point of view of possible illegal over-collection from sites not endangered. However, it was reassuring to observe that the males were caught most easily leaving the less expendable females more difficult to trap out in the unlikely event of any such sustained assault on a Crested Newt population.

This work was of course carried out under licence and supported by a sympathetic County Ecologist. About half the newts were released in a pond some 500 metres distant with an existing Crested Newt population and the rest distributed to three unused ponds in which it is hoped new colonies may become established. Furthermore, the developers created a new pond as near as possible to the rescue site and if anything rather larger than the original. In due course Crested Newts will be trapped from the 500 metre neighbouring pond and translocated into the new one, this year or next depending on when sufficient vegetation establishes (some was transplanted from the old pond basin by the developers). A final bonus is that the BHS land fund receives £250 as my "fee" for the work done catching and moving newts. So all in all this story probably ends on a high note, but it would be quite wrong to leave the impression that rescues in general are a good idea. Much better, in my opinion, to have left the site completely alone and improved the road without impinging on the pond at all – perfectly possible in this particular situation. That, after all, is what a decent wildlife protection act could have ensured.