

The Alpine newt in northern England

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THE Alpine newt is probably the most successful introduced species of Urodele in Britain (Wisniewski, 1989). It is thought to have been established in Britain since the 1920s when a population was introduced into ponds in Newdigate, Surrey (Beebee & Griffiths, 2000). It has been recorded in an increasing number of areas over the years but its status and distribution would still seem to be poorly known. Lever (1977), refers to the Newdigate site as the single colony in Britain as does the Atlas of Amphibians and Reptiles in Britain (Arnold, 1995). However Fraser (1983) mentions a second colony in Shropshire that had commenced with 7 individuals in 1970 and had grown to 30 adults by 1977. Other colonies have subsequently been recorded in Argyll (Irving, 1987), Northampton (Blackwell, 2002) and Kent (Sewell, 2006). Beebee & Griffiths (2000) list six general areas where populations of the species have been recorded; south-east London, Sunderland, Shropshire, Birmingham, Brighton and central Scotland. The Alpine newt populations in the Sunderland area were documented by Brian Banks (Banks 1989) in an article for the Herpetological Bulletin. This article seeks to update the article by Banks and lists a number of other sites where the species would seem to be established in northern England.

Alpine newts in Sunderland

Banks (1989) identified two sites in the Sunderland area where Alpine newts were recorded. One, a garden pond at grid ref NZ383552, had been filled in by the time the 1989 article was written. The second site was a stream-fed, concrete lined pond in Doxford Park, grid ref NZ375528, which Banks believed had been filled in, in 1987. In fact the Doxford Park pond exists, although a new retail park has cut off its feeder stream, which is believed to be the reason why sticklebacks are no longer present (Stephenson, pers. comm.). It still has a complete lack of aquatic vegetation but has a loose

layer of decaying leaves some 10 cm deep on the pond floor; the latter making accurate amphibian counting very difficult as amphibians of all species tend to disappear into it.

Lee Stephenson, who worked as a gardener at Doxford Park in 1990, was aware of the presence of Alpine newts at that time and has occasionally encountered them since. A brief survey by John Durkin and Terry Coult in 2003 failed to find the species; the newt eggs that they found on dead leaves in the pond proving to be those of Smooth newt and Great crested newt. However the presence of the Alpine newts is apparently well known to the local children who report 'dinosaur newts', 'blue newts' and 'litle newts' and who claim to be supplying a local pet shop with the 'blue' ones.

On June 11th 2007, one of the authors, IB, did a torch survey of Doxford Park. Approximately one-third of the pond's perimeter was surveyed with five Alpine newts (3 male, 2 female) and ten Smooth newts (5 male, 5 female) being recorded. One of the smooth newt males was virtually devoid of pigment. No Great crested newts were seen but a small number of very large Common frog tadpoles were present. Given that the survey was likely to have been done a little past the peak period for breeding newts and the very effective camouflage afforded by the dead leaves then it is likely that a fairly healthy population of newts exists despite the lack of aquatic vegetation and the depredations of the local children.

Alpine newts in Cleveland

The species is apparently well established in the Eaglescliffe area. Bob Brown, a countryside ranger based in Stockton, recorded them in the garden pond of a friend's house in Carradale Close, Eaglescliffe, NZ423139, in the late 1990s. The origin of these newts isn't known as the pond was present when his friend moved in and the house was sold a couple of years ago so it is not known

whether the pond still exists. However Alpine newts have also been recorded in the ponds of several other gardens on this estate by Robert Scaife. It is believed that the populations in some of these ponds may have started accidentally with the transfer of aquatic plants between ponds but the species has been seen crossing an estate road at night thus demonstrating some dispersal ability (R. Scaife, pers. comm.). The species is also established at three rural sites on the western boundary of Eaglescliffe; Eliff's Mill, NZ408141, a small nature reserve with a complex of ponds which harbours six amphibian species; a pond on the community forest site of Coatham Stob, NZ4015 and a private nature reserve at an undisclosed location. The latter site has a particularly healthy population of Alpine newts. Alpine newts were first noticed there in 2003 when a small number were seen in one of the ponds; the population has increased year on year and in 2007 they were common in virtually all of the ponds. The ponds on this site are all fairly small and of artificial construction being mainly concrete lined with some subsequently reinforced with liners. They are close together and surrounded by large areas of natural and semi-natural habitats comprised of rank grassland, scrub and pine woodland; the site also has all three native newt species. Although the three rural sites are within 2 km of each other, at least two of them have had imports of aquatic vegetation, a common practice in the management of newly created wetland sites. It is possible that the Alpine newt populations could have stemmed from accidental introduction of eggs as is likely to be the case with the Palmate newts which are considered not to be native to the Tees Lowlands.

In 2004 one of the authors, IB, was brought an unidentified, emaciated newt that had been found in a wheel-wash pit at Carlin Howe near Guisborough, as part of an ecological survey. The newt, which proved to be an Alpine, subsequently died but one of the consultants doing the ecological survey confirmed that several of this type had been found in some of the ponds at the western end of the site. Carlin Howe, NZ6017, is a complex of ponds in the base of a former quarry; all three native species are also present. The ecological survey was to inform a planning application to use the site for landfill. Should this require a translocation project for the newt populations it might raise some interesting dilemmas if the number of Alpine newts proves to have expanded.

Alpine newts of Lower Wharfedale

Lower Wharfedale includes the northern reaches of Leeds and Bradford Districts and the south-eastern portion of Harrogate Borough. Burley-in-Wharfedale sits between the two main towns of Otley and Ilkley, but is a sizeable settlement in its own right. Alpine newts were first believed to have been introduced to Wharfedale via the local primary schools in the 1990s. At the time, primary schools were keeping alpine newts for study purposes, and then children were allowed to take the newts home over the holidays. By hook or by crook, Alpine newts inevitably escaped or were 'set free' and released into garden ponds (Freda Draper, pers. comm.). Reference to the records held by Nevil Bowland (who is the amphibian and reptile recorder for Wharfedale Naturalists Society) show that by spring 2001 Alpine newts were known to be present in five garden ponds in Burley, centred on a known release site on Stirling Road (SE 159463). Interestingly, Alpine newt was also recorded in a garden pond in this year near Otley Golf Course (SE 183449) some 2 km away. It is not known whether this represents dispersal, or a further release. Further records of good numbers exist for spring 2002 and, in 2003, 39 individuals were rescued from a pond being in-filled in a garden in the Stirling Road area. Also this year the first confirmed records of Alpine newt at Sun Lane Nature Reserve appear (SE 156467). This Reserve is approximately 400 m from Stirling Road, with intervening habitat consisting of a residential area. Alpine newts were subsequently recorded from the Reserve in 2005 and 2006. From a survey undertaken in March 2007 GH confirmed that a breeding population of Alpine newts occurs at Sun Lane Nature Reserve alongside Smooth newt (breeding), Common toad (in abundance) and Common frog (breeding). Freda has also reported Alpine newt co-existing with Palmate newts over a number of years.

Alpine newts in Sheffield

Other records in South and West Yorkshire are scarce. Colin Howes at Doncaster Museum does not hold any records and Richard Sunter (the Yorkshire Naturalists Union recorder) has records only for Wharfedale as previously described (up to 2004). John Newton of South Yorkshire Amphibian and Reptile Group has knowledge of a release of Alpine newts in the Sheffield area (SK372821). The release of a small number of adults took place approximately



Figure 1. Male Alpine Newt in bottle trap. Alpines were the most numerous newt species caught in the 2008 chytrid swabbing survey at Sun Lane. © J. Mortimer.

15 years ago and, after a lag phase, the population at this pond has grown rapidly in recent years. Alpine newts are now reported to be the dominant newt present! Happily they are coexisting with Smooth newt and Great crested newt at this site.

Overall, it is difficult to draw many conclusions from this data, except to confirm that thriving populations of Alpine newt currently exist in localities in Yorkshire on the fringes of the uplands. In Burley it is likely that these were introduced upwards of ten years ago, and that breeding has been successful. A similar pattern has been reported in Sheffield. In both cases Alpine newts have certainly increased in numbers and dispersed, but appear to co-exist with our native amphibians. It has been suggested that the Wharfedale population has been successful due to the influence of the adjacent uplands, with lower winter temperatures and acid waters from the moor matching conditions found in areas of Europe where this species is native. The question in this case must be why it isn't a component of our native fauna? Could low powers of dispersal be a factor, or is it simply a twist of post-glaciation fate (in the same way that Great crested and Palmate newts failed to colonise Ireland)?

In the same way it is difficult to know what all of these clusters of records mean in terms of Alpine newt colonisation of Britain. Clearly the species can thrive in a variety of situations, not just garden ponds, and populations seem to be able to establish from what must be small numbers of founders. Beebee (2007) considers that Alpine newts have the potential to spread widely in Britain and expresses surprise that they haven't already, however there is no clear evidence that they are dispersing far beyond sites where they have been introduced. In fact it is

equally plausible that Alpine newt populations will suffer the same effects of fragmentation as beset other amphibian species (Griffiths, 1995) and gradually disappear through local extinctions.

Research work on the Alpine newt would be welcome – in particular it would be useful to examine the niche overlap between Alpine newts and native newts in an effort to quantify the extent to which Alpine newts are competing with native amphibians for resources. Clearly the same ponds are used for breeding and so there is the potential for inter-specific competition for egg-laying sites and food for the efts, equally there may be competition between adults for food and resting places. It may be that the niches are subtly different, allowing a harmonious co-existence. However, as it is not clear what triggers the uncontrolled expansion of a non-native species in the wider countryside at the expense of native fauna, a study examining the potential impact of Alpine newts on native amphibians would certainly help to put these herpetologists' minds at ease!

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