



Newts: An assessment of current status in Greater Lincolnshire

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Achieving more for nature



Lincolnshire Wildlife Trust



GLNP
GREATER LINCOLNSHIRE
NATURE PARTNERSHIP

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1. Introduction

1.1. Newt species population declines and their legal status

UK newt populations have declined considerably, in range and abundance, in the last century, particularly through loss of suitable aquatic habitat used for breeding and degradation, loss and fragmentation of terrestrial habitats. The introduction of fish that feed on newt eggs and small young and various forms of pollution have also had an impact on populations.

In England, Scotland and Wales, all three native species of newt: smooth newt *Lissotriton vulgaris*, palmate newt *Lissotriton helveticus* and great crested newt *Triturus cristatus* are afforded legal protection under the Wildlife and Countryside Act 1981 (as amended)¹, which prohibits their sale, barter, exchange, transport for sale and advertisement to sell or to buy. In the case of great crested newts, the Act also prohibits the intentional killing, injuring or taking (including capture), possession, intentional disturbance whilst occupying a 'place used for shelter or protection' and obstruction or destruction of these places. Similar protection is afforded to great crested newts, which are designated as a European Protected Species, through the Habitats Directive as transposed into national law by the Habitats Regulations (The Conservation of Habitats and Species Regulations 2010)².

Great crested newts are a UK Biodiversity Action Plan (BAP) priority species, and this species, along with smooth and palmate newt are covered by the Lincolnshire BAP 3rd edition Species Action Plan (SAP) for newts³.

1.2. Newt conservation and research in Greater Lincolnshire

1.2.1. Lincolnshire Biodiversity Action Plan

The Lincolnshire BAP describes the species and habitats that are priorities for conservation in Greater Lincolnshire, an area that includes Lincolnshire County, North Lincolnshire and North East Lincolnshire, and identifies actions that can take place at a local level which also contribute to national and international conservation commitments. The BAP includes a grouped SAP for smooth, palmate and great crested newts.

The SAP for newts outlines a number of objectives and targets and the actions to be undertaken in order to achieve them:

¹ www.legislation.gov.uk/ukpga/1981/69

² www.legislation.gov.uk/uksi/2010/490/contents/made

³ Lincolnshire Biodiversity Partnership (2011). *Lincolnshire Biodiversity Action Plan 2011-2020 (3rd edition)*.



Objectives

- To achieve a better understanding of the distribution of newts in Lincolnshire.
- To maintain and enhance current newt populations through habitat improvements and creation.

Targets

- Publish a statement by 2012 on the population and distribution of newts in Lincolnshire.
- No net loss in the number of sites in Lincolnshire with newt records between 2010 and 2015 (based on 2010 figures).
- Increase the number of recent great crested newt records held by Lincolnshire Environmental Records Centre (LERC) to 60 occupied 10km squares by 2020.

Actions

- Collate existing records of newts in Lincolnshire to identify key sites and any knowledge gaps.
- Follow up results of 2009-10 ponds and amphibians survey using trained surveyors to verify great crested newt presence.
- Carry out further surveys to identify breeding sites. Use survey work to identify potential sites for habitat enhancement.
- Work with landowners/ managers to safeguard and manage identified key sites.
- Carry out habitat restoration and creation – in particular near to existing sites – to facilitate population expansion. (Aim for one enhancement scheme per year.)
- Provide advice to owners of ponds containing great crested newt or palmate newt populations regarding management of the ponds, terrestrial habitat, legal issues etc.

1.2.2. Lincolnshire Amphibian and Reptile Group

The Lincolnshire Amphibian and Reptile Group (LARG) looks to support and train, where required, interested volunteers in survey techniques which will allow them to survey and record their findings to further the understanding of newts within Greater Lincolnshire. Members can take part in organised national surveys and training can be provided to stimulate more individual surveys and records. Enquiries regarding membership of the group or about amphibians and reptiles generally can be made to the Chair of LARG and the Lincolnshire Naturalists' Union (LNU) Amphibian and Reptile County Recorder⁴.

⁴ Contact details of the LNU Amphibian and Reptile County Recorder and Chair of LARG can be found at www.arguk.org/local-groups

1.2.3. Surveys

There are a small number of experienced surveyors within Greater Lincolnshire, in possession of a Natural England (NE) Class Licence to survey great crested newts for scientific or educational purposes. A licence is required to permit the disturbance to great crested newts, which inevitably occurs as a result of survey. Any survey which may affect great crested newts must be carried out by a licenced surveyor. They may be able to survey ponds and other aquatic habitats in order to verify newt records submitted by members of the public.

1.3. The importance of biosecurity

Biosecurity measures during field surveys of aquatic habitat of amphibians are essential to minimise the potential spread of disease.

Batrachochytrium dendrobatidis (also known as Bd) is a fungal disease caused by infection with the chytrid fungus and is one of the main reasons for population declines, and even species extinction, among amphibians globally. It was first identified in the UK in 2004.

National surveys in both 2008 and 2011 did not find any evidence of infected amphibians in Greater Lincolnshire, and the full extent and impact of Bd on amphibians in the UK is not fully understood. Research is ongoing, and this disease remains a potential threat to the populations of newts and other amphibian species in the UK and Greater Lincolnshire.

Any amphibian survey work should be undertaken with reference to the ARG-UK Advice note 4, Amphibian disease precautions: a guide for UK fieldworkers⁵.

1.4. Getting involved

1.4.1. Sending in records

In order to be able to better protect newts and their habitats and prevent further declines, it is important to have an accurate picture of the species' ranges and population statuses.

Please send information on all newt sightings to LARG or directly to LERC⁶. Negative records (no newts found following concerted survey effort) are also of importance. All records collected by LARG are passed on to LERC annually and included in national datasets in due course. Other species records can also be sent to LERC.

⁵ Amphibian and Reptile Group-UK Advice Note 4, 2008. *Amphibian disease precautions: a guide for UK fieldworkers*. ARG-UK.

⁶ Lincolnshire Environmental Records Centre is a part of the Greater Lincolnshire Nature Partnership www.glnp.org.uk



For any record it is important to include as much information as possible – in particular:

- ‘What’ – the species (if known), the number seen, and the life stage.
- ‘When’ – the date the newt was seen.
- ‘Where’ – the location of the sighting. (A grid reference or postcode is best.)
- ‘Who’ – contact details in case any further details are needed.

A new condition of the great crested newt Class licence (amended in December 2012)⁷ states that a surveyor must submit data collected under this licence to the relevant local record centre.

The records used to produce this report originated from a large number of sources including ecological consultants, LARG, LNU and members of the public. They have been collated by LERC, whilst maintaining confidentiality of the individuals that submitted the records, and play a vital role in informing conservation efforts, habitat management work and decisions about planning applications.

The distribution information that is currently available for smooth, palmate and great crested newt in Greater Lincolnshire is presented in Section 3.

1.4.2. Habitat management for great crested newts– the legal requirements

When considering carrying out any form of management at a site known to support great crested newts, it is important to remember that this species and their habitats are afforded significant legal safeguards.

In situations when great crested newts are known or likely to be present a licence can be obtained from NE to allow persons to carry out activities that would otherwise be prohibited, without committing an offence. A licence can only be issued if the applicant can satisfy NE that the activity meets one of the purposes listed below and in addition that there is no satisfactory alternative, and the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

With particular reference to great crested newts, NE has powers to grant licences in England for the purposes below:

- Preserving public health or public safety or other imperative reasons of overriding public interest (this can include development).
- Science or education, conservation, ringing or marking.

⁷ www.naturalengland.org.uk/Images/wml-cl08_tcm6-27924.pdf

Careful planning and timing may negate the need for a licence, for example works to improve habitat undertaken when great crested newts are at a stage in their lifecycle when they are thought to be absent. However works must cease and advice sought from NE if the great crested newts are unexpectedly discovered during works.

Information on licences is available on NE's website⁸ and there is guidance on standard practice to help developers and others. Working with great crested newts as part of the planning application process is common for many ecological consultants and local authorities.

It should be noted that at sites of proposed development, the potential for presence of great crested newts and other statutorily protected wildlife species is a material consideration as part of the planning process. It is therefore important that appropriate levels of survey effort are carried out by a suitably qualified surveyor at an early stage and the results of the surveys made known to the local authority ahead of any future works.

2. Using this report

The maps and species accounts in Section 3 summarise the information that is currently available on the distribution and status of newts in Greater Lincolnshire. The report is intended to inform and support newt conservation and awareness-raising work undertaken by LARG and other BAP Partners.

It can also be used by conservation organisations, land managers, ecologists, planners and other interested parties to:

- Highlight key areas of the county that are of known importance for newts.
- Identify areas where further surveys are needed.
- Indicate areas where particular consideration of the presence of newts needs to be taken into account at sites of proposed development or aquatic and terrestrial habitat management works (though this should be taken into account in all areas of suitable habitat).
- Identify areas where habitat enhancement works could be targeted to benefit breeding or hibernating newts.

NOTE: The absence of a record does not necessarily mean that newts are not present – simply that they have not been recorded.

⁸ Natural England www.naturalengland.org.uk/ourwork/regulation/wildlife/default.aspx



This report should not be used for commercial purposes in place of a data search with LERC, which will be able to provide more detailed, up-to-date information.

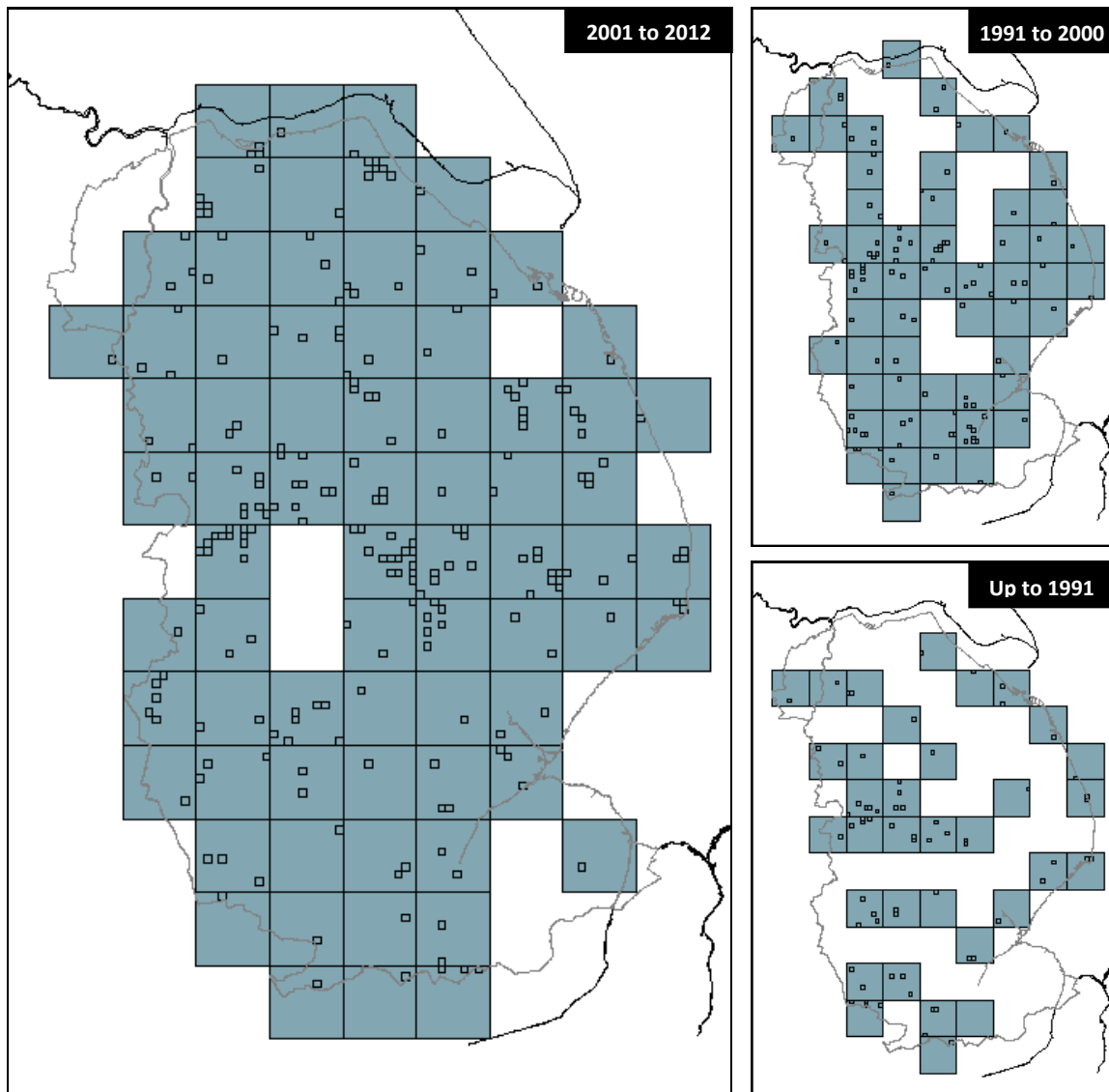
3. Species accounts

The maps on the following pages have been produced using the newt records held by LERC, and show one page each for great crested, smooth and palmate newts and one page with the combined records of all three species. Each map shows Greater Lincolnshire. If a newt has been recorded in the area, a 1km square is outlined in black and the 10km square is highlighted blue. For each species records have been divided into three date ranges: pre 1990, 1991-2000 and 2001-2012, to allow for comparison.

Each species is accompanied by an interpretation of trends and possible explanations, information about known breeding sites, and identification of gaps in survey effort/knowledge.

The maps clearly suggest that some parts of Greater Lincolnshire are under-recorded for newts, so LERC would be pleased to hear from anyone that can add any further information or additional records (historic or recent) to the maps.

3.1. All newt sp.



Our knowledge and awareness of the distribution of newts within Greater Lincolnshire is shown, in these maps, to have seen a steady increase over the last 20 years. Increased survey effort and encouraging people to record newts is only part of the answer when it comes to maintaining healthy populations of newts across Greater Lincolnshire. Further work to raise awareness of newts, to protect and enhance existing habitat and to create new habitat is vital for the long term survival of the species.

In each of these maps the absence of a blue square suggests a potential gap in survey effort/knowledge in that area rather than the absence of newts.



3.2. Smooth Newt *Lissotriton vulgaris*



The smooth newt is thought to be a common species, therefore these distribution maps appear to show that they are the most under-recorded of the newt species. In addition, change in mapped distribution is more likely to relate to surveyor effort rather than much real change in newt distribution. This could be attributed to the fact that they are deemed the 'common newt,' and common species are often not reported even when they are seen. This species is almost definitely more abundant than the distribution maps suggest and only by increased surveys and encouraging people to record newts, will we discover the true distribution pattern. Scarcity of records in the Isle of Axholme suggests it might be worth targeting some concentrated survey efforts here to see if this is the real situation or just a reflection of under-recording in this area.

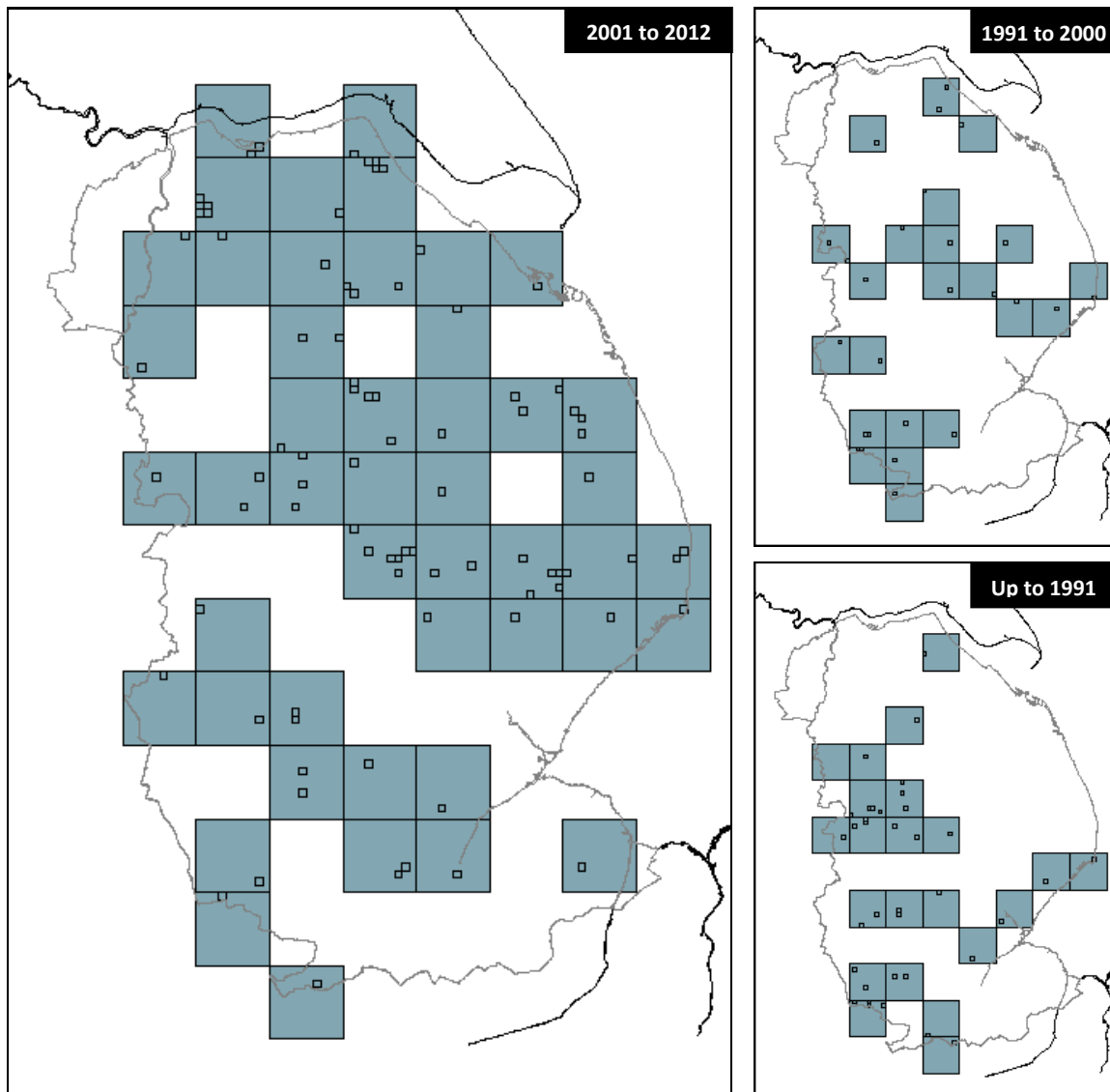
3.3. Palmate newt *Lissotriton helveticus*



The distribution maps clearly show that the palmate newt *Lissotriton helveticus* is Greater Lincolnshire's rarest newt, possibly, in part, due to their specific habitat requirements. Generally associated with more acidic conditions, which are limited in Greater Lincolnshire, the species is likely to suffer from issues related to 'genetic drift' due to isolated populations and limited opportunities to increase the gene pool. This situation requires careful monitoring of known key sites, which will show the general abundance and condition of this newt species over time. Positive ID of presence of this species by female palmates only is questionable, given their close similarities to smooth newts. It is suggested therefore that new records are only accepted if male palmates have been seen and verified by experienced surveyors.



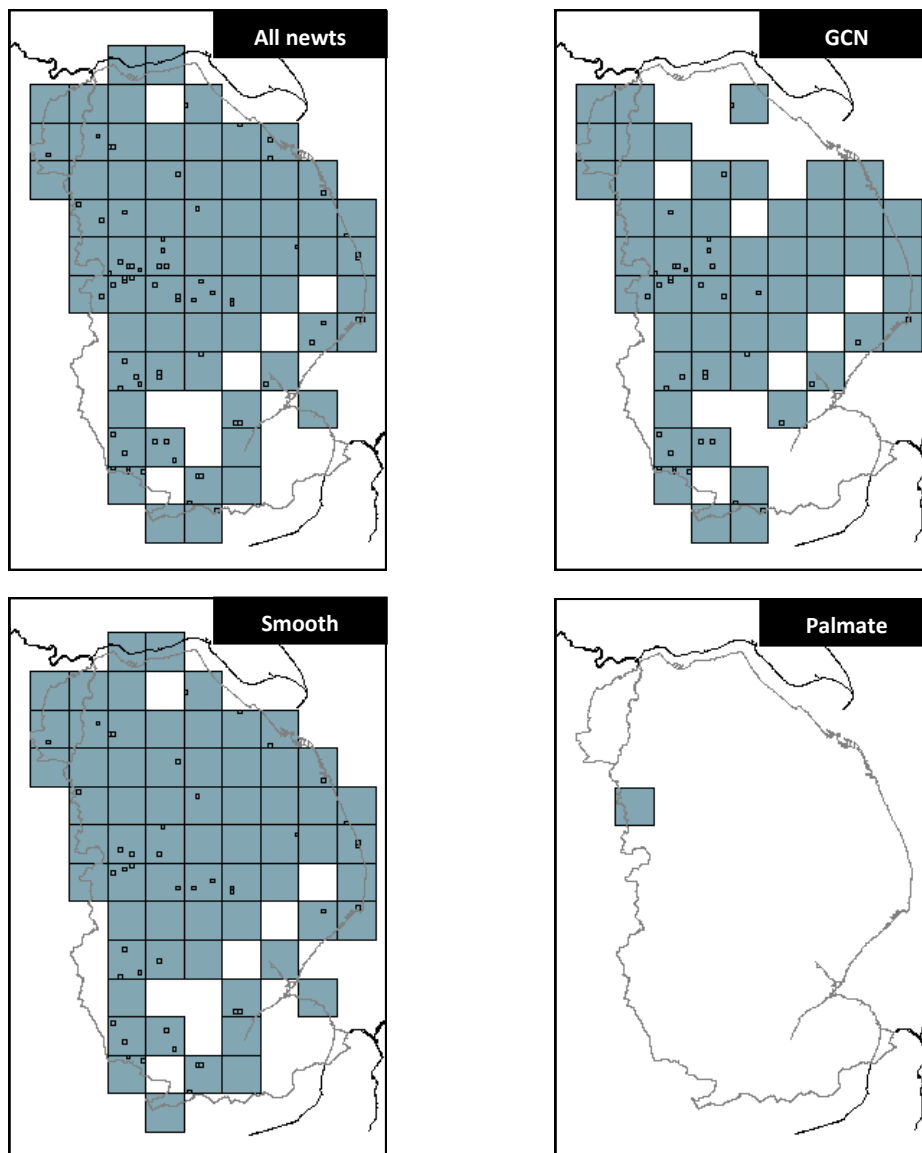
3.4. Great crested newt *Triturus cristatus*



The great crested newt, although a protected species, is relatively abundant within Greater Lincolnshire. The maps however show that although widely distributed, there are still many gaps in our current understanding of the species range. The combined use of the Habitat Suitability Index for great crested newts and surveys undertaken by suitably licensed surveyors remain a priority for action to further our understanding of this species and its distribution. Very few records in the south east corner of Lincolnshire probably reflects greatest intensification of agriculture in this part of the county and a lack of suitable breeding habitat. The species is also noticeable by its absence in the Isle Axholme, again maybe suggesting further recording efforts in that area could be useful.

4. Surveyor effort

Between 1975 and 1978 the LNU ran a survey which encouraged members to actively search for certain animal species in Greater Lincolnshire, the results of which were published in 'Atlas of the Mammals, Reptiles and Amphibians of Lincolnshire and South Humberside'⁹. This increased effort in the number of records for newts during the period 'up to 1990' being significantly higher than for the other periods shown by the maps in Section 3. For this reason the LNU survey records were excluded from the Section 3 maps and are shown in the maps below. If they had been included in the Section 3 maps these records would have suggested that the number of smooth and great crested newts declined dramatically after 1991, when in fact there was no decline in newt populations, merely a surge of surveyor effort during that earlier time period.



⁹ Johnson, M. (1982). *Atlas of the Mammals, Reptiles and Amphibians of Lincolnshire and South Humberside*. Lincolnshire Naturalists Union, Lincoln.



5. Conclusion

Greater Lincolnshire is very fortunate to have all three UK newt species present, but only by a mixture of monitoring known sites and surveying additional ponds and other aquatic habitat will we begin to establish the full distribution picture. Action for newts may also involve evaluation of habitats at known sites and implementation of management to benefit both the terrestrial and aquatic breeding habitats. By increasing our knowledge of newt species ranges and protecting the habitat, we hope to protect the newts within Greater Lincolnshire.

5.1. Implications

This report fulfils one of the targets of the newt SAP;

- To publish a statement by 2012 on the population and distribution of newts in Greater Lincolnshire.

This contributes towards the objective:

- To achieve a better understanding of the distribution of newts in Lincolnshire.

This objective was achieved through a combination of two newt SAP actions:

- Collate existing records of newts in Lincolnshire to identify key sites and any knowledge gaps.
- Follow up results of 2009-10 ponds and amphibians survey using trained surveyors to verify great crested newt presence.

This report creates the potential for other BAP actions to be fulfilled as the information gathered can be used to identify potential sites for habitat enhancement, restoration and creation to facilitate population expansion. The contribution of individuals working or volunteering in the field is vital to the broadening of our knowledge and understanding of newts. It is hoped that conservation organisations, ecologists, and other interested parties will feel encouraged by this report to carry out further surveys to identify breeding sites and to realise the importance of submitting their records.

It is envisaged that records are collated and presented again in five years' time, in 2018, to ensure that any negative changes can be recognised and remedial action taken and positive changes are recognised and embedded into standard practice. Together, this should help to ensure that there is no net loss in the number of sites that support newts in Greater Lincolnshire.

As seen in Section 4 of this report, increased surveyor effort has the power to skew distribution maps and create false impressions. This skew would become less obvious if the increased effort was sustained in the long term.

5.2 Further sources of information

Great Crested Newt Conservation Handbook

Langton, T., Beckett, C. and Foster, J. (2001). *Great Crested Newt Conservation Handbook*. Froglife, Suffolk.

Amphibian Habitat Management Handbook

Baker, J., Beebee T., Buckley, J., Gent, A. and Orchard, D. (2011). *Amphibian Habitat Management Handbook*. Amphibian and Reptile Conservation, Bournemouth.

Great crested newt mitigation guidelines

English Nature. (2001). *Great crested newt mitigation guidelines*. English Nature.

Herpetofauna Workers Manual

Gent, T. and Gibson, S. (2003). *Herpetofauna Workers Manual*. Joint Nature Conservation Committee.

ARG UK - www.arguk.org

Amphibian and Reptile Conservation Trust - www.arc-trust.org

Froglife - www.froglife.org

Natural England - www.naturalengland.org.uk



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