

KRAG *news*

NEWSLETTER OF THE KENT REPTILE AND AMPHIBIAN GROUP

In This Issue:

Diary of an Amateur Surveyor
Viper conservation - Lessons from Hungary
Spotlight on CEEC...

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Great Crested Newt © Brett Lewis

The largest of our native newts, the great crested newt is strictly protected under European legislation. Kent has good populations of this species and people are often confused as to why the animal receives such a high level of protection. In fact the species is known to be in decline and the rate of decline is greater than that observed in the other widespread native amphibians. To find out more about great crested newts including their behaviour, ecology and distribution please visit our website at - www.kentarg.org

The Diary of an Amateur Amphibian Surveyor

By Mike Phillips

Having been introduced to the world of herpetology some six or seven years ago, after attending one of KRAG member Lee Brady's talks on British Amphibians, my interest in this group of species has grown into a passion. When the opportunity to take part in the Great Crested Newt Monitoring Project that is co-ordinated by KRAG and Kent Pond Wardens came along I jumped at the chance to get involved.

This year's efforts centred around my home town of Whitstable, an area of the county, like so many, that has been subject to large amounts of housing development over recent years. My motivation was to try and build a better picture of the amphibian population where I live. It can be quite difficult to know where to start in a situation like this so my first port of call was to contact the Countryside Officer at Canterbury City Council and ask if they had any ponds that could be surveyed on the Local Nature Reserves in Whitstable. They jumped at the chance to have some survey work done and I set off to the Wraik Hill and Duncan Downs reserves armed with a clipboard, a smile and a copy of Oldham's habitat suitability indices to see what was around. There were three ponds on the two reserves that then became the focus of my studies for the year.

Oldham's habitat suitability index has been used by the GCN Monitoring Project as it uses a number of simply calculated environmental factors to give a likelihood of great crested newt (GCN) occupation. The first signs were good as all three of the ponds scored highly and previous records collected by KRAG suggested that GCNs were likely to be present in Whitstable. However, the first few surveys revealed smooth newts and frogs but no GCNs. My fear was that the fragmentation of habitats had squeezed GCNs out of the town.

The next prong of my strategy was to look at other ponds that were in the vicinity of the three I had already surveyed. Two other ponds were surveyed, one that was covered with so much duckweed that my poor torch had no chance and the second that was difficult to survey due to the amount of vegetation around the water. Whilst it was heartening to find the typical urban species (frogs and smooth newts) thriving, my hopes of finding GCNs were fading.

However, a friend claiming to have seen 'monstrously huge newts' in his back garden and a call from a lady who lived between the two nature

reserves added fresh impetus to my search. Both of these ponds were then surveyed and revealed not only GCNs but smooth newts in huge numbers as well as palmate newts. I also received anecdotal evidence of GCNs being seen between Whitstable and Chestfield. My search had been fruitful and there are a number of leads to follow up next year in my quest to build a picture of amphibian distribution in Whitstable.



Smooth newt (*Triturus vulgaris*) © Brett Lewis

So a combination of surveying public ponds and spreading the word amongst friends revealed a picture of isolated GCN populations within Whitstable that suggests a larger historic population that has been fragmented by the expansion of the town. These populations are vulnerable and now they have been identified we can work to ensure that these habitats are maintained as well as possible. I have also been able to give advice to Canterbury City Council regarding management of the ponds on local nature reserves for their amphibian populations. So, all in all, a great year and I can't wait until next spring.

If you would like to get involved in the Great Crested Newt Monitoring Project or are interested in the Pond Warden Scheme then please contact me at treasurer@kentarg.org or on 01233 812033.

Mike Phillips
Honorary KRAG Treasurer

Lessons in viper conservation form the Hungarian plains

By Rick Hodges

The Hungarian Meadow Viper project is pioneering ways of protecting Europe's most endangered species of snake, the Hungarian meadow viper (*Vipera ursinii rakosiensis*). During a visit to the centre in May, Rick Hodges the Krag Secretary was delighted to learn about a technique that may also be helpful for conserving the the adder; Kent's very own viper.

The captive breeding program for Hungarian meadow vipers has been using outdoor enclosures that simulate a natural habitat and include suitable hibernation sites



Meadow viper enclosure in Hungary

The first of these hibernations sites was prepared from concrete rubble, reaching 90 cm into the ground. The whole area was wire-netted at a depth of 20 cm under the soil in order to prevent rodents from making tunnels that could provide escape routes for snakes. The method was tested with *Vipera renhardi* and was successful, so in 2001 another enclosure was built to accommodate three meadow vipers. More followed so that now there are 105 of these beautiful creatures in the captive breeding programme.



Hungarian meadow viper
(*Vipera ursinii rakosiensis*)

Continued...

As many more enclosures were constructed there was a need to prepare hibernation burrows in a standardised and convenient way. It was decided that terracotta could be used to construct these because it is good in retaining natural moisture and some warmth and, very importantly, can be frost-proof. After a long search, a company producing cemetery urns agreed to make the first series of hibernation burrows. These are 1m long, and consists of three section, accurately fitting into each-other.



The terracotta hibernation burrow (left) showing drainage holes on its lower surface and (right) the burrow inserted into the ground and provided with a protective collar

The burrow is installed into the ground at an angle of 35-40 degrees, reaching about 90 cm deep. This is deep enough to be below the frost line; in Hungary the frosts penetrate to 60 cm. The sphere-shaped widenings on the pipes provide optional places for the vipers for thermoregulation, while rings on the pipe make climbing easier for them. In winter, a covering cap with a small hole is placed on the end of the pipe to limit heat loss; the full diameter of the unrestricted pipe was designed to allow the use of a pipe camera to record viper behaviour in the burrow. At the Centre a tile is placed over the entrance to prevent direct entry by rain and in winter hay is piled on the holes to improve insulation.

To date no viper has died during hibernation at the Centre, so artificial hibernation burrows can be considered a success. In order to monitor temperature changes, data loggers record the temperature on the shaded soil surface and at a depth of 1m. By checking them regularly with a pipe camera, valuable data are gathered about viper movements due to temperature changes during hibernation. In the future, burrows will be sampled to monitor for the presence of fungus and other possible source of infection.

During the last two years artificial burrows were installed into three natural meadow viper habitats but to date vipers have not been observed using them. Instead, in winter, large numbers of newts (*Titurus vulgaris*, *Triturus dobrogicus*) and toads (*Pelobates fuscus*, *Bufo viridis*) have been observed in the burrows although at the Centre itself, newts and frogs have been observed in burrows together with the vipers. At other times the burrows were used as hiding places by lizards (*Lacerta viridis*, *Lacerta agilis*) and even rodents (*Apodemus* sp.).

Recently the Centre has started to use a plastic pipe that makes installation and possible removal of the whole burrow easier. The installation itself is easy at the Viper Centre which has sandy soil, but on grassland reconstruction sites, roots make it more demanding, and it is very difficult in the loess soil of Hanság habitat. There is a plan to install more artificial burrows in natural habitats, especially as in 2009 a start will be made to release captive-bred vipers back into the wild, and it is thought that these animals may be more likely to use the burrows.

Continued...

As in Hungary, hibernation sites are key habitat feature for vipers in Kent and artificial burrows of the sort described in this article may well provide a convenient means of upgrading habitats without the effort and disturbance required to dig and install an extensive hibernaculum. This design is clearly also beneficial to other reptiles and amphibians.

More information the the Meadow Viper Centre can be found at
http://www.mme.hu/rakosivipera/kozpont_en.htm

Tamás Péchy

Director of Hungarian meadow viper Conservation Centre

Bálint Halpern

Hungarian meadow viper LIFE-project manager

With Thanks To:

Rick Hodges

Honorary KRAG Secretary

KRAG's Annual General Meeting

All members of KRAG are invited to attend the AGM

Date: Saturday 19 January 2008

Venue: Tyland Barn (Kent Wildlife Trust HQ)

Start time: 14.00h

The meeting will consider KRAG's progress over the year with accounts from post holders but, for your entertainment, there will also be two illustrated talks entitled

How many great crested newts are there in Kent?

(by Dr Lee Brady - Chairman KRAG)

Reptiles and refuges, observations from a chalk downland reserve

(Dr Rick Hodges - Secretary KRAG)

The KRAG Committee is looking forward to your participation and a full agenda will be circulated in advance of the meeting.

Spotlight on Reptile & Amphibians at the Canterbury Environmental Education Centre...!

By Alex Ewing

Background

The nature reserve at the Canterbury Environmental Education Centre, off Broad Oak Road, occupies an approximate area of 12 ha; the site being owned and operated by the National Grid Company as an electricity sub-station since the 1960's. A partnership for environmental learning was established between Kent County Council and National Grid in 1973 permitting the non-operational areas of the site to be used for education and research.

The centre's prime function is to provide environmental education and a better understanding of the natural environment to all sectors in the community.



Habitats & Biodiversity

The site is bounded to the north by the Broad Oak Road and by the River Stour to the south with adjoining light industrial units; it is relatively isolated from areas of high biodiversity. The nature reserve is part of the Lower Stour SNCI and lies in the flood plain of the Great River Stour. It is composed of woodland, grassland, scrub, flooded gravel pits and ponds.

Although approximately 25% of the site is wetland there is only one original pond dating back to the site's early development in the 1960s. Over the past 15 years however four other ponds have been created for wildlife.

The site supports populations of all the common herpetiles i.e., common lizard, slow-worm and grass-snake with common frog, common toad, smooth newt and palmate newt, as well as a small

population of great crested newts. Marsh frogs have occasionally been recorded on the site since the 1990s.

Surveying & Monitoring

Licensed bottle-trapping and torching surveys of the crested newt population commenced in 2001. Since 2002 monitoring of crested newts on the reserve has been undertaken on an annual basis with volunteers assisting from both the Broad Oak Friends' group and Canterbury Urban Biodiversity Survey project.

Management

Information obtained from recent studies has helped to inform the management plan for the reserve. This has the long-term goal of both improving the habitat for herpetiles generally and increasing species distribution and abundance on the reserve.

Further information about these studies can be viewed on the centre's web-pages at www.naturegrid.org.uk/naturereserve/research.

Developments

Grants have previously been obtained from the Herpetological Conservation Trust and the conservation charity BTCV to improve ponds for great crested newts on the reserve. The latest development is the lining of a pond previously filled purely by ground water with a water-level that rises and falls largely according to the changing height of the underlying water-table.

This has meant that although crested newts were able to breed in the pond in the spring, the larvae have been unable to complete metamorphosis as the pond invariably dried out each summer. In addition the pond is to be planted up with a range of aquatic and marginal plants to benefit a wide range of aquatic life.

Alex Ewing

Previously Conservation & Community Officer
KCC - Canterbury Environmental Education Centre

Case of Mistaken Geography...!

By Rick Hodges

One of the jobs of the Krag Secretary is to respond to queries from the public – and all sorts arrive. Most are fairly predictable – “I have got too much frog spawn in my pond.....”, “Is this a picture of a great crested newt?”, “What can I do to encourage slow worms in my garden?” etc, but just occasionally I get a surprise.

In June, a lady from Kent e-mailed a photo of a dead snake asking if I could identify it for her. She mentioned she thought it was a rattlesnake and was surprised how big it was – pointing out that her husband had chopped its head off with an axe. How could this be from Kent and how could it be a rattlesnake? On closer inspection, the snake was clearly a rattler and looking closely at the e-mail the message was from Kent County Texas!!



Anyhow, the snake in the photograph is *Crotalus horridus* which in the south western USA is called the Canebreak rattlesnake (it used to be a sub species *C. horridus atricaudata* due to its black tail, but this sub-species is no longer recognised), in other parts of the USA it is called the Timber rattlesnake. It's a lot bigger and much more poisonous than the inoffensive adder we find in Kent County England. The lady was delighted to have an identification and promised that next time she sends us photos of a reptile she will try to make sure that it has its head on.

Rick Hodges

Honorary Krag Secretary

Controversy Over BBC's Great Crested Newt Article Continues...

A few weeks ago Lee Brady was interviewed by Mr. James Fair (a journalist working for BBC Wildlife) who was interested in publishing a story on the Species Action Plan (SAP) targets that were announced for great crested newt earlier this year. Following a lengthy interview Mr. Fair wrote a news story entitled 'In the Eye of a Storm' that was published in the October 2007 edition of the magazine. The article attempts to inject controversy into what is really quite a dull story.

Lee summarises, the BBC's article as an attempt to create a storm, but in reality it achieves little more than a drizzle. Which is a shame. Lee believes that surveying for amphibians (and reptiles) is extremely rewarding and collecting data that enables us to make more accurate predictions regarding the distribution of threatened species is really quite exciting. Lee adds '*We also absolutely need folks to challenge the status quo*'....

For the full article please to Lee Brady's article on the Krag News Blog: www.kentarg.org

Forthcoming Events..

Come and join the Krag team on a wide range of projects, events and presentations. Below are some forthcoming events, however these are updated frequently on our website (www.kentarg.org) so please get in touch if you would like a full list of dates and to get involved.

E-mail - Events@kentarg.org

17th November 2007

ARG-UK SouthEast
Regional Conference 2007
www.arg-uk.org.uk

9th Decembere 2007

The Herpetological Conservation Trust and
the British Herpetological Society
Joint Scientific Meeting
Email- chris.go@herpconstrust.org.uk

19th January 2008

KRAG Annual General Meeting
Tyland Barn - Maidstone
www.kentarg.org

Article Submission..

As news letter editor I am always on the look out for interesting articles to add to our newsletter publications. If you have time to jot down some of your activities or new and interesting records, please send them in to newsletter@kentarg.org

Please use this e-mail address to forward any or all of the following for entry into the forthcoming newsletters:

Articles, Reviews, Photographs, Events, Conference news, Education or anything else that may be of a herpetological interest....

You can also post articles for submission to

KRAG Newsletter
C/o KMBRC Tyland Barn,
Chatham Road,
Sandling,
Maidstone,
Kent,
ME14 3BD

For the next newsletter - Spring 2008, the deadline for submissions is 30th April 2008. Please continue to send in articles that I can stockpile for future use.

Brett Lewis - KRAG Committee and
Newsletter Editor

Renew Your Membership..!

To help reptiles and amphibians in Kent and continue to receive the **KRAG News**, please remember to renew your membership, using the tear-off strip below.

Tear/Cut Here

To join KRAG, simply send this voucher and £5.00 (payable to Kent Reptile and Amphibian Group) to KRAG, C/o KMBRC Tyland Barn, Chatham Road, Sandling, Maidstone, Kent, ME14 3BD.

Name

Address

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Phone Email