



# ARG Today

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Newsletter of the Amphibian and Reptile Groups of the United Kingdom

ARG UK represents over 50 local groups working for amphibian and reptile conservation in the British Isles



Pond creation underway in Blackburn, funded by the ARG UK 100% Fund. Photo by David Orchard

## The ARG UK 100% Fund gets off to a flying start!

David Orchard, vice chair of ARG UK

The ARG UK 100% Fund is already demonstrating that ARGs can deliver high quality conservation projects with exceptional value for money.

The 100% Fund, launched last year, is intended to attract money from a variety of sources and guarantees to use every penny to support practical conservation projects run by ARGs. Nothing is deducted from the fund to cover staff costs or administration expenses.

The fund supports ARG projects that have a direct benefits for amphibians or reptiles, such as habitat creation or management. Grants from the 100% Fund are to be spent on materials or machine hire and projects must be planned and managed by local ARG volunteers.

Money donated by delegates at last year's Herp Workers Meeting was enough to fund the first two projects

supported by the scheme. See page 2 for a brief review of each project.

"ARG UK is always pleased to accept donations that will be used to support projects all over the UK", said Jan Clemons, chair of ARG UK. "With more money available, ARGs could do so much more to improve their local sites for amphibians and reptiles".

If your ARG has a practical conservation project in mind, see the ARG UK website for details of how to apply to the Fund. Awards are made twice a year and are for a maximum of £250.

## HWM 2009

One of the highlights of the ARG calendar is nearly upon us! This year's Herpetofauna Workers Meeting (HWM) will be held on the weekend of January 31st/ February 1st at Pontins near Blackpool.

This year's venue has the advantage of offering good value accommodation within easy walking distance of the conference events.

This year's HWM again promises to be an excellent weekend and will include speakers on a range of interesting and informative topics.

We're already looking for a venue for HWM 2010, so if you can find something suitable please contact John Baker  
[john.baker@herpconstrust.org.uk](mailto:john.baker@herpconstrust.org.uk)

There's a prize of a free HWM 2010 registration for the person who finds the venue!

## Can you help ARG projects with a donation to the 100% Fund?

If you'd like to support the conservation of the UK's amphibians and reptiles, why not make a donation to the ARG UK 100% Fund? To find out about the sorts of projects that we'd support with your money, see the project review on page 2.

Please send donations to ARG UK at:  
ARG UK, c/o HCT, 655A Christchurch Road, Boscombe, Bournemouth, Dorset.  
BHI 4AP

If you'd like to sponsor an ARG project, please contact John Baker, the ARG UK Support Officer, at: [john.baker@herpconstrust.org.uk](mailto:john.baker@herpconstrust.org.uk)

## Editorial

David Orchard

Editor of ARG Today

Winter is generally a time of rest and recuperation for ARGs and it's definitely good to step back and consider what your group's priorities should be for the year ahead.

The coming season will be as busy as ever with no shortage of projects to get involved with. On page 2, John Wilkinson gives an update on NARRS and explains how you can get involved with this important research project. On page 4, an introduction to the Million Ponds Project explains how this imaginative project will encourage the creation of thousands of ponds across the UK over the next 50 years.

Activity within the ARG network continues to grow, with the ARG of West Glamorgan and the ARG of South Manchester recently being formed. More will surely follow in 2009!

As always, ARG UK welcomes the involvement of new volunteers, so if you're able to help with the running of your local ARG or ARG UK, please get in touch to find out more. We hope to see you at the forthcoming HWM in Blackpool, but whether you'll be there or not, I wish you a successful survey season for 2009!

If you'd like to submit an article for the next newsletter please send it to me at [argsl@btinternet.com](mailto:argsl@btinternet.com)

## Striped grass snakes



Kevin Sunderland has been keeping tabs on striped grass snakes at a site near to Bradford.

Grass snakes with two pale stripes running along their backs are better known from southern and south-eastern Europe (those from south-east Europe are sometimes given subspecies status, *Natrix natrix persa*). It seems likely that similarly patterned snakes in Britain stem from imported snakes that have either escaped or been released. Two grass snakes, with stripes, in the Cliffe Castle Museum, Keighley, were found in the Bradford area in the 1990s. Grass snakes were imported from the continent in large numbers in the 1960s and 1970s, so striped snakes

may have originated from that period, or even earlier. There are records of grass snakes described as continental forms dating from as long ago as the 1920s and 1930s in the Bradford and Huddersfield areas (Sunderland, 2003 and pers. comm.). The long-term survival of a southern form of the grass snake is surprising at a relatively northern latitude.

*Sunderland, K. (2003). Continental grass snakes (Natrix natrix natrix) in upper Airdale. Yorkshire Naturalists' Union Bulletin 40, 1-3*

***Have you time to help monitor reintroduced populations of natterjacks and sand lizards in North Wales?***

*For more information and to register your interest please contact Kate Taylor at [kate.taylor@denbighshire.gov.uk](mailto:kate.taylor@denbighshire.gov.uk)*

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## NARRS UPDATE 2009

John W. Wilkinson

NARRS Coordinator/Research Officer, The HCT

ARGs are key to the success of local mapping and monitoring of amphibians and reptiles, as well as to the success of long-term projects to assess changes in status and distribution on a larger (regional/ national) scale such as NARRS. The NARRS National Amphibian and Reptile Surveys have now been running for two years. I'll be talking about some initial analyses of the first two years' NARRS data at the Herp Workers Meeting in Blackpool, but I'd also like to share some of this information with ARG members who may not be able to attend that meeting.

The first thing to note is that about 30% fewer results have been received for 2008 (so far) as compared to 2007. We know that not everyone has submitted their results yet but I'd still expect the 2008 figure to end up lower because the **awful** survey conditions for much of the year may have discouraged some from completing their surveys. Another possibility is that bad weather and/or other factors led to negative results ("absences") that have not been submitted. These negative results are still

important information – so please send in any that you may have in hand.

The occupancy rates for both amphibians and reptiles are, broadly speaking, similar for both years; the greatest differences between years coming from common lizards (39% in 2008 versus 27% in 2007) and common toads (41% in 2008 versus just 21% in 2007). This makes more sense when you understand that there was only minimal overlap between the squares surveyed in 2007 and 2008 (only single figures!) so that there is no real reason these rates should be the same – the sets of squares from each year are effectively completely different. This demonstrates the value of **accumulating** data over a number of years to gain a more accurate picture over a larger geographical area (a greater number of squares).

The combined NARRS data from both years has "evened" the occupancy rates – a good comparative yardstick (for amphibians anyway) can be seen in Swan and Oldham's (1993) data which, although the methods are not the same, has markedly similar pond occupancy rates to the combined NARRS data, with the one notable exception of the palmate newt. This difference was first noted in the 2007 NARRS data. This

may be a real change, it may be due to method or survey differences, or it may be that NARRS surveyors are better at identifying palmate newts! If it is a real difference, does it reflect changes in pond quality that favour this species (which can be out-competed by smooth newts and which prefers slightly different habitats)? Again, we need data from more squares and over a longer period to address interesting and important questions such as this!

For the reptiles, there isn't (unfortunately) a similar study that describes results in a way that provides comparable "square occupancy rates". This is a shame, as some folk will look at the reptile occupancy rates with the suspicion that they may be higher than we'd expect...Possibly true, but we also know that some NARRS surveyors have visited their squares, not found reptiles, and not sent in their negative results. I can't emphasize enough how important it is to send in negative findings! Records of a species' absence from a square are as important as records of presence! They are needed to generate accurate estimates of reptile square occupancy so that any changes over time can be measured and the reasons for them investigated. Measuring **changes** in

### Reptile Square Occupancy Rate (%)

	Common lizard	Slow-worm	Grass snake	Adder
2007 (103 squares)	27	21	20	8
2008 (72 squares)	39	28	21	8
Combined Years (167 squares)	33	25	21	8

### Pond Occupancy Rate (%)

	Common frog	Common toad	Great crested newt	Smooth newt	Palmate newt	Smooth/palmate newt
2007 (142 squares)	56	21	8	21	30	8
2008 (92 squares)	57	41	11	30	26	3
Combined Years (229 squares)	57	30	9	25	29	5
Swan & Oldham (1993)	52	30	11	22	11	n/a

The tables above show occupancy rates for reptile squares and ponds (for amphibians, obviously!) from NARRS surveys in 2007, 2008 and both years combined, with comparative occupancy data for amphibians from an earlier survey (Swan & Oldham 1993).



status is a key goal of NARRS and data on such changes helps drive conservation policy, legislation and action.

To make it clearer what is happening (and what will happen) to NARRS survey data, we're introducing the concept of a "NARRS cycle". Not a green way of travelling to your square, but the cycle over which NARRS records are collated and compared. To fit in with needs for reporting status and changes in status we're fitting in with BAP and European Protected Species reporting requirements. The latter operates on a six-yearly cycle and the next reporting point is in 2011 – so by that year we'll need to have data on (ideally) 400-500 NARRS squares for both reptiles and amphibians across the UK and to have examined them to assess occupancy rates both nationally and regionally. This seems a much less daunting task when you see that there are already data for 229 amphibian squares from just two years of survey. We are, therefore, well on the way to achieving the target number of squares! Subsequent surveys should reveal any status changes on which robust, practical, conservation action can be focussed.

### Messages for NARRS 2009

- *If you've already sent in some NARRS survey data – great! And thank you, you're part of a project providing data that will contribute to the long-term monitoring of amphibian and reptile populations.*
- *If you've done a NARRS survey and not submitted the results you can still send them in!*
- *Negative (absence) data is just as important as records of species' presence – and CRITICAL to obtaining more accurate occupancy rates.*
- *Why not survey one or more NARRS squares as a group activity as part of your ARG meeting/activity schedule? This can be a great way for new surveyors to gain experience and for ARG members to share information on the amphibians and reptiles in their county or ARG area.*

- *NARRS surveying should be enjoyable! Have a great time with your squares in 2009!*

*If you'd like to be involved in NARRS, jump in! Survey training opportunities and methods can be found at [www.narrs.org.uk](http://www.narrs.org.uk)*

*The website will be updated very soon to help NARRS surveyors find the information they need more easily.*

I can send you a randomly-generated 1 km NARRS square if you e-mail me with your postcode.

For more information on NARRS and any questions on taking part, please contact John Wilkinson at [johnw.wilkinson@herpconstrust.org.uk](mailto:johnw.wilkinson@herpconstrust.org.uk) or call 01202 391319.

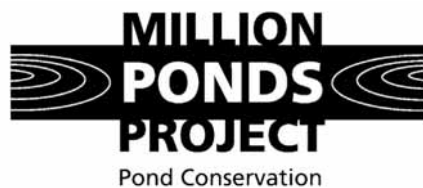
### Reference

Swan, M.J.S. and Oldham, R.S. (1993). Herptile sites. Volume I. National Amphibian Survey Final Report. English Nature Research Report 38, English Nature, Peterborough.

## Million Ponds Project launched!

David Orchard  
Ponds Project Officer with The HCT.

*The Million Ponds Project is a 50-year project to create a network of clean water ponds for freshwater wildlife*



February 19<sup>th</sup> will see the launch of the Million Ponds Project, a 50-year initiative led by Pond Conservation to reverse a century of pond loss. The project aims to bring the number of ponds in the UK countryside to a total of one million, comparable with the number that existed in the early 20<sup>th</sup> century. (The number of ponds in the UK landscape has now fallen to approximately half a million.) Phase I of the project will soon be underway and this aims to create 5,000 clean water ponds in England and Wales by 2012. Of these 1,000 will be targeted to support over 80 Biodiversity Action Plan species associated with ponds. (For a complete list of these

species see the *Pond BAP Species List*, available on the Pond Conservation website: [www.pondconservation.org.uk](http://www.pondconservation.org.uk).

The focus of the Million Ponds Project is to encourage the creation of "clean water ponds" as these have the greatest potential to be good quality wildlife habitats. These new ponds are also valuable habitats for communities of early colonising species.

The need for a focus on clean water ponds is underlined by the results of the most recent Countryside Survey. (For more information see [www.countryside.gov.uk](http://www.countryside.gov.uk).) Although the number of ponds in the countryside has increased over recent years (an 11% increase between 1996-2007), the overall quality of ponds has declined. Botanical diversity has decreased and currently, eight out of ten ponds in England and Wales are ranked as either 'poor' or 'very poor' quality.

To help ensure that a new pond develops into high quality habitat, Pond Conservation advises that three principles be followed:

1. Create the pond where it will receive clean water and avoid linking it to streams or ditches.
2. Leave the pond to colonise naturally – don't stock it with plants, fish or other animals.
3. Make sure the pond will be subjected to few impacts during its lifetime (no frequent disturbance from dogs, no added plants or feeding of ducks).

Further information about these principles will be included in the *Pond Creation Toolkit*, which will soon be available on the Pond Conservation website. The Toolkit will include advice on how to identify a suitable site for pond creation, how to design a good wildlife pond and how to go about pond construction.

The Million Ponds Project is a collaborative effort involving major landowners and land managers (listed on the Pond Conservation website). These organisations will be providing advice and support and some will also be creating clean water ponds on their land as their contribution towards the Million Ponds target.

Important partners in the Million Ponds Project are The Herpetological Conservation Trust (The HCT), and ARG UK which are encouraging and supporting the creation of ponds for the amphibian and reptile BAP priority species (great crested newt, common toad, natterjack toad, pool frog and grass snake). Pond loss and habitat fragmentation has had a particular impact on all these species and the Million Ponds Project aims to help them by creating new ponds, especially in areas where they will provide a link between isolated populations.

Pond clusters are good for amphibians and studies have shown that landscapes with high pond densities are particularly valuable for great crested newts. Pond networks help populations to be more resilient during times of adversity and they also enable recolonisation of vulnerable sites, preventing isolated populations from being lost.

Pond creation for the pool frog and natterjack toad will be possible on only a small number of sites due to the rarity of these species and this work will normally be directed by The HCT. The only native reptile supported by the Million Ponds Project is the grass snake because it is the only reptile closely associated with pond habitats. (One of its main food items is frogs; they are excellent swimmers and can spend a lot of time in the water.)

The HCT can offer advice and support for the creation of new ponds and can also assist with management of ponds to benefit amphibian BAP priority species or the grass snake. If you'd like The HCT to help at a site near you, please get in touch and register your interest by completing the form, *Application for Support with Pond Creation and/or Management*, available on both The HCT and Pond Conservation websites.

The Million Ponds Project Team is now actively searching for funds to help with pond creation, and all being well, money for pond creation for BAP species will become available later in the year through Biffaward funding.

For further information take a look at: [www.herpconstrust.org.uk](http://www.herpconstrust.org.uk) and [www.pondconservation.org.uk](http://www.pondconservation.org.uk) or contact David Orchard, The HCT's Ponds Project Officer [david.orchard@herpconstrust.org.uk](mailto:david.orchard@herpconstrust.org.uk).



Ponds that are good for amphibians can benefit a whole range of plant and invertebrate species - varied micro-habitats are to be encouraged by sympathetic management. Photo by David Orchard

## Scientific Paper Review

*A selection of scientific papers on amphibians and reptiles published in 2008*

Trevor Beebee  
Professor, University of Sussex

**C**hytridiomycosis-mediated expansion of *Bufo bufo* in a montane area of central Spain: an indirect effect of the disease. Bosch, J. & Rincon, P.A. *Diversity and Distributions* **14**: 637-643 (2008).

**T**he devastating effects of chytrid infection on numerous amphibian populations are now well-known. In Europe, the most serious outbreak so far has been in the upland area of the Peñalara Natural Park in central Spain. One species, the midwife toad *Alytes obstetricans*, has been virtually exterminated in this area. However, a surprising consequence over the past decade has been the spread of, and substantive increase in, common toads. It seems that the overwintering midwife toad tadpoles adversely affected any common toads trying to use the ponds in spring, but now this competition (of as yet uncertain mechanism) has been released, allowing common toads to invade. Perhaps this offers some glimmer of hope for common toads in Britain facing chytrid threats, as the beast is now among us. However, this optimism may be premature, because there is evidence that common toads can suffer from

chytridiomycosis, at least under some conditions.

**C**onservation of newt guilds in an agricultural landscape of Belgium: the importance of aquatic and terrestrial habitats. Denoel, M. & Ficoleta, G.F. *Aquatic Conservation-Marine and Freshwater Ecosystems* **18**: 714-728 (2008).

Another paper in the ever-growing list published over the past 30 years exploring the habitat needs of amphibians, this time in a neighbouring country with a fauna similar to that found in Britain. In this part of rural Belgium (Pays-de-Herve), newts of at least one species occurred in 42% of a sample of 258 ponds. Proximity of woodland, long hydroperiod and absence of fish all favoured newts (no surprises here), but unlike results from some studies in Britain, pond density was not a critical factor. The common theme in this and many earlier papers is the importance of good quality aquatic and terrestrial habitats in close juxtaposition.

**U**se of a magnetic compass for nocturnal homing orientation in the palmate newt, *Lissotriton helveticus*. Diego-Rasilla, F.J., Luengo, R.M. & Phillips, J.B. *Ethology* **114**: 808-815 (2008).

Possibly the earliest paper on amphibian migration ever written, almost 100 years ago, showed a propensity for palmate newts to walk downhill (where most



ponds are...). A century on there is still much we don't know about how amphibians find their way around, and reappear almost magically in their spring breeding ponds. Experiments reported in this paper, at night under overcast skies (so no celestial cues), indicated that palmate newts could orientate towards "home" (breeding ponds several km away) using a magnetic compass as their only source of information. Similar results have been obtained with other species, including North American newts and natterjack toads, but it still seems remarkable and we don't know how they do it.

**P**opulation genetics reveals origin and number of founders in a biological invasion. Ficoleta, G.F., Bonin, A. & Miaud, C. *Molecular Ecology* **17**: 773-782 (2008)

North American bullfrogs are the subject of this study. These frogs have established populations in several European countries, including Britain, over recent decades and are a potentially serious pest. Genetic analysis of bullfrogs from Britain, France, Italy, Belgium and Germany was compared with data from frogs in 42 populations spread across the species' natural range in the USA. The results implied at least six separate introductions into Europe, followed by some secondary movements. Most introductions were probably started with fewer than six females. The British population in south-east England, now extinct after a successful eradication programme, likely originated in the western part of the native range. Unfortunately another population has cropped up in England, and it remains to be seen if this one will also be eliminated.

**S**urvival of the amphibian chytrid fungus *Batrachochytrium dendrobatidis* on bare hands and gloves: hygiene implications for amphibian handling. Mendez, D., Webb, R., Berger, L. & Speare, R. *Diseases of Aquatic Organisms* **82**: 97-104 (2008).

We still have no direct evidence about how chytrid fungi spread, but on the assumption that humans may have something to do with it, rigorous hygiene protocols have been widely advocated for amphibian fieldworkers. This paper describes experiments that show chytrid survived all too well on latex and polyethylene gloves, but was killed

quickly by nitrile gloves. Unfortunately this killing effect was inconsistent between batches of gloves, probably because it wasn't the nitrile itself that did the killing, but some chemical used in their manufacture (washing the gloves removed their destructive power). Surprisingly, human skin killed chytrid very effectively – but again, this effect was removed by washing. So fieldworkers will either have to change gloves between handling amphibians, or use bare hands (but keep them dry...).

**A**n evaluation of non-invasive sampling for genetic analysis in northern European reptiles. Jones, R., Cable, J. & Bruford, M. *Herpetological Journal* **18**: 32-39 (2008).

Genetic studies of wildlife populations are producing lots of interesting new information about their origins, and the extent to which animals move between sites. Of course the methods involved all require DNA samples, the taking of which can be stressful to the individual animals concerned. This paper describes the use of non-destructive methods for obtaining DNA from reptiles, and especially for retrieving it from snake faeces in the field. A range of other sources was also productive, including sloughed skin and carcasses. Another relatively safe method is buccal swabbing, a common method in human forensics, that also works well with sand lizards and smooth snakes (Beebee, T.J.C., *Conservation Genetics* **9**: 1087-1088, 2008).

**A**voidance responses to scents of snakes that pose different risks of predation by adult natterjack toads, *Bufo calamita*. Gonzalo, A., Lopez, P. & Martin, J. *Canadian Journal of Zoology* **86**: 928-932 (2008).

It is well known that natricine snakes can be major predators of amphibians, including toads (despite their skin toxins). This study shows that natterjacks can recognise chemical cues ("scents") of two predators, grass snakes *Natrix natrix* and viperine snakes *Natrix maura*. The toads avoided refugia in which snake scents were applied, and much preferred refugia with scent from other natterjacks. Grass snakes are probably more significant predators of natterjacks than viperine snakes in the wild, but the toads did not discriminate clearly between them – both species were avoided.

**C**limate warming, dispersal inhibition and extinction risk. Massot, M., Clobert, J. & Ferriere, R. *Global Change Biology* **14**: 461-469 (2008).

How are reptiles responding to climate change? This paper uses 16 years' worth of monitoring data from a population of common lizards *Lacerta vivipara* in The Cevennes National Park, southern France, together with a 12-year manipulation of gravid females' diet, to investigate juvenile dispersal. It turns out that dispersal rates declined dramatically over the study period, in parallel with a rise in spring temperatures, irrespective of resource availability (i.e. how well fed the mothers were). Mathematical modelling predicted that this apparent climatic effect is likely to damage metapopulation structure and increase extinction risk. All very interesting in light of the (anecdotal) evidence that common lizards have declined in parts of southern England recently.

PS: Use of *Lacerta* rather than *Zootoca* persisted as favourite in the scientific literature in 2008, at a ratio of about 3:1....

**B**iography and evolution of the smooth snake *Coronella austriaca* (Serpentes: Colubridae) in the Iberian peninsula: evidence for Messinian refuges and Pleistocene range expansions. Santos, X., Roca, J., Pleguezuelos, J.M., Donaire, D. & Carranza, S. *Amphibia-Reptilia* **29**: 35-45 (2008).

A good example of how genetic studies can illuminate our understanding of species distributions. Although mainly focused on samples from Spain and Portugal, this study also includes individual snakes from as far afield as France, Austria, Italy (including Sicily), Greece, Russia and Britain. There is evidence of historical effects on current population structure in Iberia dating back more than five million years, generating three distinct genetic clades within that region. Separate genetic groups occur outside of it, with the British snake clustering most closely with individuals from central France and Austria. The data are compatible with range expansion in northern Europe since the last ice age (i.e. within the last 20,000 years), but it would be interesting to study many more northern specimens to obtain a more detailed picture of the colonisation process.

**E**stimating survival rates of uncatchable animals: the myth of high juvenile mortality in reptiles. Pike, D.A., Pizzato, L., Pike, B.A. & Shine, R. *Ecology* **89**: 607-611 (2008).

It's widely assumed by herpetologists that mortality of amphibians and reptiles in their first year or so of life is much greater than in adulthood. For many species, especially pond-breeding amphibians, this is usually true. However, this paper analyses published data from 109 populations of 57 species of reptiles (snakes, lizards and turtles) around the world – including *Lacerta vivipara* and *Vipera berus* – and comes to a surprising conclusion. Juvenile survival rates were, on average, only 13% lower than those of conspecific adults, with which they correlated strongly. Juvenile survival rates were highest in (non-marine) turtles, followed by snakes, with lizards at the low end. Survival was highest in species that produce relatively large offspring, and higher in viviparous than in oviparous species. Although oviparous lizards were therefore the worst off, this is still relatively encouraging news for sand lizard translocation programmes based on the release of juveniles (as many are in Britain).

## **Pond Status - Countryside Survey 2007**

John Baker  
*Widespread Species Officer, The HCT*

The Countryside Survey monitors the state of the countryside through field investigations of almost 600 one-kilometre squares. It has been repeated at six to eight-year intervals since 1978. The Countryside Survey includes evaluations of rural ponds. The 2007 Survey (reported on at the end of 2008) covers the period from 1998-2007 and shows an 11% increase in the number of ponds in the countryside. These results follow trends detected in previous surveys.

In spite of large scale losses of rural ponds in the last half of the 20<sup>th</sup> century, more recently the rate of loss has slowed, as indicated by The Lowland Pond Survey 1996, which found that the

creation of new ponds was offsetting losses to give a net loss of only 1% between 1990 to 1996. By the time of the last Countryside Survey (1998) the rate of change had become a 6% increase for lowland Great Britain (over the period of 1990-1998).

The good news of increasing pond numbers is dampened by their poor ecological quality. The condition of the majority of ponds is poor and continues to decline. The Countryside Survey 2007 included comparisons with ponds previously looked at under the Lowland Pond Survey (1996). Plant species richness declined by 24% (from an average of 10.2 to 8.3 species per pond) between 1996 and 2007. A PSYM assessment was also carried out (England and Wales only), ranking ponds under four categories: very poor/poor/moderate/good. Between 1996 and 2007 good or moderate ponds had decreased from 40% to 28% of those surveyed, while poor or very poor increased from 60 to 72%. Currently, eight out of ten ponds in England and Wales are ranked as either poor or very poor quality. In the words of the report *degradation is considerable and widespread*. Hence the need not only for more ponds, but more high quality ponds.

## **Review**

**Interactive Guide to Reptiles and Amphibians of the British Isles.** T. Boersma and J. van der Voort (2008), produced by ETI Bioinformatics.

This is a well-produced CD-ROM, full of information, but not all of it accurate. The authors are presumably Dutch, so, they deserve credit for writing about herps in a second language. But, unfortunately these distances are evident throughout the package.

Some of the errors are linguistic. For example in the description of common toad ...*large parotid glands which, seen from above, diverge on the backside*. The marsh frog is found in *nutritious waters* (never, ever ingest pond water). The sand lizard is described as *firm* (squeezing herps presumably entails catching and disturbing, both of which are indicated as illegal in an earlier section). And in the grass snake the *head is clearly separated from the body*, which sounds as if snakes

can shed the front end as lizards can the tail.

Other errors are technical. The section on legislation is incorrect. In the advice on how to find slow-worms there is no mention of the use of refuges but rather the impression that the best technique is to find them basking – for example, on cycle paths. In the section on the pool frog there is no mention of the reintroduction programme.

The guide aims to be comprehensive and so includes the Jersey fauna, twelve exotic species and five marine turtles. The latter are included on the grounds that they come here to forage. That's debateable as some species' records are only infrequent strandings, probably only here because they're lost rather than on a foraging trip. Other general information also seems a bit sloppy. For example *In spring the animals migrate to their breeding areas*. That's not really true for all species.

There are species accounts, including a series of photographs of each one and recordings of the calls of anurans, a photographic key, a clever interactive identification key, a literature database and doubtless a few other bells and whistles that I didn't discover. Some will find the package fun to use. For me it's a little irritating. If you're a comprehensive collector of all things herpetological, then you'll probably want this. If you're after a sound source of information on UK herps it's unreliable. The photographs are lovely, though.

## ***An early NARRS square reminder on behalf of Dr. John!***

*Most volunteers enjoy taking part in surveys...but find reporting their results a bit of a drag. Some volunteers even lose their data before they get round to sending it in, which means that all their hard work is wasted. If you take part in a NARRS survey this year, please send in your results as soon as you finish the visits - try and think of this as the final part of the survey rather than as a tedious extra job.*

*The sooner John Wilkinson gets our NARRS results, the sooner he can start interpreting the data and the sooner this information can be put to good use!*

# The ARG Today Interview:

## John Newton

*Regional Representative for Yorkshire and the Humber  
and Chair of South Yorkshire ARG*

*John Newton could be described as one of the unsung heroes of herpetofauna conservation in the UK. John can usually be found working away behind the scenes rather than in the spotlight of publicity but he's been the driving force behind a number of significant projects over the years. He's always happy to share his knowledge and experience with other enthusiasts, so read on to find out more about one of ARG UK's most dedicated herpetologists.*

*How did you first become interested in amphibians and/or reptiles?*



*John Newton (right) at a sand lizard release in North Wales, September 2006. Photo by David Orchard*

I remember developing an interest in amphibians around the age of 11. As a family, we would occasionally visit one of my relatives who had a large garden with a very small pond that was always be home to a toad and a few frogs. By the age of 16, I was a regular at local ponds near my home in Sheffield, and fortunate to come across frogs, toads and all three newt species within a short distance. At this time, I remember coming across my first reptile on the Derbyshire moors – an impressive green coloured common lizard. These were not uncommon locally, although the majority of common lizards subsequently seen came in various shades of brown. Three or four of these made their way back to my house, and my dad promptly set up an outdoor vivarium for them, where they thrived on a diet of wolf spiders and small earthworms.

Around this time, a French friend of mine was visiting, and he also had a keen interest in reptiles. We decided to

attempt to add a snake species to our now expanding list of local herps, by concentrating on an area in the vicinity of New Whittington, Chesterfield to try to find grass snake that were reportedly common here. Our search area was in a boggy field which had a very large above-ground sewer pipe running across it, that was supposedly a favoured basking spot for the snakes. We never saw snakes basking on the pipe, but did find them roaming about in the surrounding marsh. Surprisingly, the local Derbyshire adder populations always managed to elude us, though in retrospect we did spend a lot of time searching in the wrong places!

In spite of five years at Southampton University, I never really got out much into the New Forest or Dorset, although having left to move back up North, I quickly realised the error of my ways, and immediately took every opportunity to return to the southern heaths. My time in North Yorkshire was very rewarding, and the moors above my home in Kirkbymoorside gave every opportunity for observing adder, common lizard, and slow-worm.

Returning to Sheffield to work at the University, I joined the Sorby Natural History Society and spent a lot of time observing adder populations on the Derbyshire moors – particularly one site that was in danger of being sold off for development.

At this time, my brother Chris – also a keen herpetologist – was living over in Warrington and we both decided to try to find the elusive sand lizard in the Ainsdale sand dunes. Obviously my brother was ideally placed for local excursions to the dunes, and we spent a lot of fruitless hours searching areas that even now are not home to these animals! We did cheat a little by visiting the captive breeding vivarium at Ainsdale National Nature Reserve, which gave us greater inspiration to continue the search. We eventually find our first male sand lizard in the frontal dunes in July 1979, and this implanted an interest/

obsession with that species that has lasted until this day.

News of my activities with the adders and sand lizards somehow found its way down to the guys in Dorset and the BHS Conservation Committee, and it was not long before I became involved with this in the early 1980s, which was great because it also gave me a lot more opportunity to get around the Surrey and Dorset heaths.

*How did you become involved in the sand lizard breeding programme and how much of your time does this take?*

My involvement with the sand lizard captive breeding programme is fairly recent as a breeder, although much of my time on Merseyside since the early eighties has been involved with monitoring and habitat work, so I guess this all contributes towards the assessment of site suitability for the re-introduction programme.

Looking after the animals in my outdoor enclosure is not a particularly time consuming activity, on a daily basis, although management of the 'mini-dune' can occasionally be hard work when vegetation growth becomes excessive. Being at work on weekdays limits the amount of time available for interacting directly with the animals, but at the same time this encourages the development of ingenious features that allow the animals to have access to food when I'm not present. Fine weekends and summer evenings provide essential opportunity for excursions to the local fields to obtain sweepings of insect food for the lizards, and a valuable addition to the staple diet of commercially bred crickets. Sweepings are especially important as the prime food source for newly hatched sand lizards and need to be procured on a daily basis.

*Why did you feel that there was a need to set up the Yorkshire Adder Project? (I understand that you played a part in getting this off the ground?)*

During the autumn of 2007, I was attending a meeting, as part of the Yorkshire and Humberside Biodiversity Forum, and the discussions were primarily centred on partnership activities. Being mindful of declines in adders, and the current *Make the Adder Count* I expressed an interest in putting together a long-term project focusing



on populations in lowland heath sites around York and Doncaster. Vast swathes of land contained within the Thorne and Hatfield moors, for instance, had suffered through decades of peat extraction, to the point that a 'moonscape' was a fitting description of parts of these moors. These moors are now managed as a nature reserve by Natural England, who were equally keen to become involved in the project.

The project aims were to re-establish habitat, to include habitat linkage/networks between adjacent sites, and to improve habitat features (such as hibernacula) at existing sites. Funding for the project was potentially available through SITA. Yorkshire Wildlife Trust was ideally placed to deliver the project and several meetings later, Terry Smithson of the Trust had put together a bid - which that turned out to be successful. We are now halfway into the project!

*When did you set up the South Yorkshire ARG and what has it been doing since it was established?*

South Yorkshire ARG (SYARG) was set-up in March 2006, filling a gap in the ARG network. This complemented existing conservation and recording efforts from local/regional natural history groups. SYARG draws upon a huge membership from these other groups, making it possible to provide extensive regional coverage of herp issues.

Since its formation, the Group has been active in many areas, including local survey, national surveys/projects such as NARRS and MTAC. We are represented on the Yorkshire and Humberside Biodiversity Partnership, and support the Wildlife Trusts in several areas. The group ties in closely with the Sorby Amphibian and Reptile Group, and organises joint activities, including joint field meetings with the North Merseyside ARG.

*If there were more volunteers in Yorkshire, what would you see as being future priorities?*

With more active volunteers, we would be better placed to extend survey effort in the region. This is crucial to maintaining a current database that is visible to the biological record centres and planners, so that response to potential development impacts is timely and well supported by comprehensive

species distribution data. We would also be able to become involved in significant habitat management tasks, such as pond clearance/creation.

I would like to direct a significant proportion of survey time into producing habitat sensitivity data, that can be incorporated within the relevant local GIS - to include features such as winter hibernacula, summer feeding areas, breeding areas, habitat connectivity etc. Otherwise, it is so easy to lose a lot of animals through destruction of hibernation features, or to separate these winter dormancy areas from summer dispersal areas. This would also enhance the ability to respond constructively to any development issues.

*What's your favourite native amphibian or reptile?*

As you may have gathered from this interview, I am quite partial to, if not obsessed with the sand lizard and its dune habitat on the Merseyside Coast. Running a close second, both *Lacerta schreiberi* and *Iberolacerta monticola cyreni* have been a key focus of my interest for some time.

## Change in frog spawning dates



Almost 70,000 records of frog spawning dates gathered by the UK Phenology Network/Nature's Calendar have allowed a comparison of recent breeding activity with that of approximately 60 years ago (Savage, 1961). In his monograph on the common frog, Maxwell Savage used data collected by the Royal Meteorological Society's Phenological Reports, to construct a 'contour' map of the British Isles, showing the familiar pattern of earliest spawning in the south-west and progressively later spawning moving north and east.

The UK Phenology Network has gathered the dates of the first appearance of frogspawn since 1998. Examination of data from 1998 to 2007 (Carroll et al. 2009) shows the same south-west to north-east pattern of timing but also clarifies the relationship between temperature and spawning activity. The mean annual spawning date for the UK is negatively correlated with mean January to March Central England Temperatures; in warmer years the mean spawning date is earlier; approximately five days earlier for every 1°C. The appearance of first spawn is approximately one week later for every 100 km east and five days later for every 100 km north. The pattern of spawning activity within a season also seems to be affected by temperatures, with cold snaps generating several peaks in activity.

As might be expected from climate change trends, it was warmer when the recent data were collected (1998-2007) compared with the timing of the historical data (1938-1947). The data were examined in ten-day periods and the approximate 1.5°C temperature increase since the time of Savage's studies corresponds to a shift to an earlier ten-day 'band'.

The Woodland Trust's Nature's Calendar is an excellent project, where you can record your first frogspawn sightings. The website [www.naturescalendar.org.uk](http://www.naturescalendar.org.uk) has useful maps with sliding bars which allow you to view spawning dates as they occur across the country.

Carroll, E.A., Sparks, T.H., Collinson, N. and Beebee, T.J.C. (2009). Influence of temperature on the spatial distribution of first spawning dates of the common frog (*Rana temporaria*) in the UK. *Global Change Biology* 15, 467-473

Savage, R.M. (1961). The ecology and life history of the common frog (*Rana temporaria temporaria*). Pitman and Sons Ltd., London.

***A new ARG is formed in South Manchester***

***The inaugural meeting of ARG SM was held in Stockport this January. For those interested in joining the new group please contact Emma Wilson  
emma.wilson@stockport.gov.uk***

# News from the ARGs

## From boar holes to ponds

Peter Hill, West Glamorgan ARG

West Glamorgan ARG has only very recently been formed but I am pleased to say that several opportunities to create ponds and improve habitat have already arisen. My day job of Development Officer for BTCV Cymru on a project called *Mentru Allan* (Welsh for Venture Out) has certainly assisted West Glamorgan ARG to push the various projects forward. The Countryside Council for Wales is also a partner of the *Mentru Allan* project and has assisted greatly with funding, as has the Biodiversity Unit of the local authority. I would like to describe one project in particular which has got off to an encouraging start only very recently.

Set in 1000 acres of glorious parklands, Margam Country Park, (just outside Port Talbot) features historic buildings, ornamental gardens and probably the most significant deer herds in Wales. Until recently, there was a pets' corner at the Park and a large woodland paddock, which housed a group of wild boar. About a year ago Michael Wynne came into post as the new Park Manager. I have been working very closely with Michael who is keen to do his utmost to improve conditions for the Park's biodiversity.

All four widespread species of reptile can be found in the Park as well as common frog, common toad and palmate newt. Great crested newts are not too far away. There are several freshwater bodies already in existence in the Park, but the majority are stocked with fish. Common toad breeds successfully in at least two of the Park's ponds, and palmate newts breed in one of the formal lily ponds which happens to be fish free. Frogs do not appear to be faring so well, and were seen to metamorphose only from one spot in the Park in 2008 and not in any substantial numbers. The addition of a series of fish-free ponds of varying size and depth would seem to be the way forward.

At a meeting with the park manager at the end of the summer it was agreed



One of the new ponds, ready for the amphibian season. Photo by David Orchard

to remove the wild boar from the Park, as these posed a significant health and safety risk and their absence would mean that the Park would no longer require a zoo licence. The vacated wild boar paddock would then present an ideal opportunity for *Mentru Allan*, BTCV Cymru and West Glamorgan ARG to work together and create a habitat that would greatly benefit biodiversity especially herpetofauna and Odonata (dragonflies and damselflies).

The area of the former wild boar paddock and the nearby former pets' corner will be developed into model wildlife gardens, to directly benefit local wildlife and to inspire the visiting public to do similar things at home. Furthermore, the site is a short walk away from the new Field Studies Centre, which is a residential educational facility for children and adults, presenting the opportunity for the site to be used as an outdoor classroom. The outreach elements of the proposed work has made it easier to secure funding from CCW to start the first stage of the project.

The wild boar were removed on the 19th of December, and pond excavation began on the 22<sup>nd</sup>. At the close of play on the 23<sup>rd</sup>, all rhododendron on site had been removed and six ponds and

adjoining connecting shallow water and marsh areas had been created, thus achieving the goal of having ponds ready in time for the amphibian breeding season.



One of the former residents of Margam Park., Photo by Peter Hill

There are several shallow pools, which I hope will attract frogs, and adjoining temporary pool and marsh areas which Odonata will find hard to resist. Two larger, deeper ponds have also been created with great crested newts as the chief target beneficiaries. There are no breeding records of great crested newts in the Park. However, there have been alleged occasional terrestrial nocturnal sightings made by torch light. There is a colony nearby, and I hope that the provision of the two purpose-made, fish-free ponds will provide an opportunity for natural colonisation. A busy road may prove to be too much of a hurdle, however, in which case translocation



possibilities will be considered.

Prior to the pond excavation, I was assisted by the Youth Offending team in demolishing the brick and mortar pig sties at the site. The lads made short work of them, and the resulting rubble was used to form the basis of south facing banks and hibernacula. Even the roofing materials will not be wasted, as the corrugated iron will come in handy for future reptile survey work. A few days spent with a chainsaw in the near future will provide a multitude of logs, which, combined with the excavated earth, will be used to create further hibernacula. Interpretation panels are another consideration but not before grass snake egg laying sites have been created by chipping some of the timber on site.

West Glamorgan ARG has a further four sites at which we plan to create ponds. Work has begun at one of these, and it is intended to start at another site, possibly two, in January. The goal is to have these ponds in place in time for the amphibian breeding season, so watch this space for updates.

## The HCT amphibian and reptile training programme

*The HCT is again offering a series of training courses designed for both professional ecologists and NARRS surveyors.*

*Courses will cover identification and survey skills. Details will be available on The HCT website from the beginning of February.*

[www.herpconstrust.org.uk](http://www.herpconstrust.org.uk)



# HCT

Working for amphibians and reptiles since 1989

## Berkshire Great Crested Newt Project

Andy Glencross

*Berkshire Reptile and Amphibian Group*

Wokingham Borough Council (WBC) has been actively monitoring and recording great crested newts over the last several years and has identified at least 50 breeding ponds in 2007. Part of the Berkshire Great Crested Newt Project has been to restore or recreate breeding ponds. The Berkshire Biodiversity Coordinator, Melanie Hardie, in partnership with WBC secured funding from Natural England to implement a programme of works to restore or create ponds to enhance the great crested newt population in Berkshire.

### Project objectives

The main objective of the project was to create eight new ponds and to restore two existing breeding sites. The sites were chosen as they had landscape links to known great crested newt populations or natural habitat corridors. These new and restored ponds should increase the viability of existing metapopulations and increase local range.

### Funding/Budget

The project was funded by Natural England, WBC and Shinfield Parish Council. The total budget was £17,005 including a grant of £14,400 from Natural England. Clearance work, including the removal of overhanging trees and a destructive search of habitats prior to pond creation accounted for £3,080. The excavation of the ponds and the installation of liners cost £11,525. Survey work cost £2,400.

### Project Achievements

Eight ponds were created and four restored, exceeding the project targets.

- **Winnersh Public Open Space (Bluebell Meadows)**  
A permanent pond was created to

supplement one permanent and one seasonal pond supporting an isolated population.

- **Winnersh Millennium Arboretum** Two ponds were dug to link two existing populations



Above: The site selected for pond creation in the Millennium Arboretum, Winnersh  
Below: The newly created pond. Photos by Stuart Croft



- **The Moors in Finchampstead**  
Three new ponds were created to increase breeding habitat for a population resident on an adjacent golf course.
- **Dinton Pastures** Two ponds were restored to reduce the risk of them drying out too early in the summer, which has limited breeding success in previous years.
- **Rachel's Lake, Warfield** Two new ponds were created adjacent to a small existing population to provide fish-free breeding sites.
- **Huntercombe Hospital near Maidenhead** A pond was restored to reduce the risk of it drying out too early in the summer. An additional pond was restored.
- **Three Mile Cross** A brick lined pond was extended to make it accessible to newts. The work was paid for by Shinfield Parish Council. The project promoted surveys through the planning process in



West Berkshire, a previously under recorded area.

### Project Partners

Natural England, Wokingham Borough Council, Bracknell Forest Borough Council, Shinfield Parish Council, Huntercombe Group and Berkshire Reptile and Amphibian Group (BRAG).

### Yorkshire Adder Project

Extract from North, East and West Yorkshire ARG report - 2008

*Gordon Haycock*

Yorkshire Wildlife Trust has been awarded SITA funding for an adder project to further habitat management work on five lowland adder sites in the Vale of York. Sam Jarrah Moon has been appointed as the project officer. Heathland management commences in January 2009 at Strensall Common, Calley Heath and Allerthorpe Common; with further work planned at Thorne and Hatfield Moors. There will also be survey of the sites and habitat mapping to monitor the adder populations – including a Spring Equinox adder adventure at Allerthorpe Common. The aim is to enhance sites for adder, and reduce fragmentation of adder habitat at these lowland sites. Sam is keen to work with adjacent landowners of the five sites, to help create corridors between them. In addition to that, it would be great if any sightings of adder anywhere in East Riding were reported to the Yorkshire Wildlife Trust so that a more accurate profile of distribution can be established. Sam has got this project off to a great start, and NEW Yorks ARG looks forward to supporting the project in 2009.

### **Can you take a good herp photo?**

**ARG UK is always on the lookout for good herp photos to use in publicity and training materials. If you have some shots that you'd be willing to share with us please contact the editor of ARG Today at [argsl@btinternet.com](mailto:argsl@btinternet.com)**

### ARG UK 100% Fund Project Review

ARG Today allows us to let people know how we're spending money donated to the 100% Fund. In October 2008, ARG UK decided to support two pond creation projects, one in Lancashire and the other in Essex. Both projects were organised in partnership with local authorities and both were completed within a few months of the grants being awarded.

#### New ponds in Essex

*Essex Amphibian and Reptile Group (EARG) teamed up with Brentwood Borough Council to create two new ponds at Merrymeades Country Park near Brentwood in Essex. The total cost of the project was £1960, with £250 being received from the ARG UK 100% Fund.*



*The start of pond creation work at Merrymeades, Photo by EARG*

Earlier surveys had revealed the presence of great crested newts within the park, but the existing pond dried up on a regular basis. EARG volunteers approached the council about creating a new pond and then secured the funding to assist with the dig, which took place in November 2008.



*One of the newly created ponds, Photo by EARG*

Brentwood Countryside Management Volunteers dug test pits during summer 2008 and the new site was selected

because of its ability to hold water and due to its proximity to the existing pond. It is hoped the new pond will fill up naturally over winter and will soon be home for a variety of wildlife including the great crested newt

A local school has been informed about the project and it is hoped to involve local community groups and other volunteers in pond dipping.

For further details on the project contact Graham Hart of EARG [hart@btinternet.com](mailto:hart@btinternet.com).

#### New ponds in Lancashire

*The Amphibian and Reptile Group of South Lancashire (ARGSL) developed a small project in partnership with Blackburn with Darwen Borough Council towards the end of 2008. Three new ponds and four shallow scrapes were created at Witton Park, to the South of Blackburn. The work was completed in December and the total cost of the project was £276.*

The new ponds will benefit common toads and smooth newts which are present in a nearby pond within the park. The new water bodies will be monitored by ARGSL volunteers over the next few years to find out how quickly the new ponds are colonised.



*One of the new scrapes at Witton Park, two weeks after creation. Photo by Margaret Keighley.*

The shallow scrapes are likely to hold water for at least half of the year and should become an excellent habitat for invertebrates.

After seeing the new ponds, park manager Margaret Keighley said, "I'm really impressed - the new ponds look fantastic!" Feedback from the public has been very positive and ARGSL is now looking for other similar projects in the area.



Photo by Harry Green

## Dutch Toad Crossings in Worcestershire

Extracted from an original article: Green, Harry (2008). Toads crossing roads. *Worcestershire Record* 24, 13-14 [www.wbrc.org.uk](http://www.wbrc.org.uk)

In 2008 Jurjen Annen, Wetland Officer at the Worcestershire Wildlife Trust, employed a temporary toad crossing system at two sites in Worcestershire. This system is essentially a drift fence and pitfall trap system used to intercept migrating toads before they reach a major road and it is a commonly used technique in Jurjen's home country, The



Above: The fine mesh fence adjacent to the road  
Below: One of the containers used to capture toads  
Photo by Harry Green



Netherlands. Jurjen believes that the method is more effective in catching toads than dashing about in the traffic with a bucket. It is safer for both people and toads and provides a good record of toad numbers.

- A fine-meshed (1-1.5 cm) wire netting fence (approximately one metre high) is erected at the roadside on the side where the toads start to cross the road.
- The fence is held in place by bamboo canes or similar.
- The base of the fence is bent in an L-shape (base pointing towards the toad approach route) and covered with soil.
- Every 10 m or so along the fence a rectangular plastic container (approximately 36 x 26 cm and 24 cm deep) is sunk into the ground (on the side away from the road).
- The containers are located tightly up against the fence with the rim flush with the soil surface.
- The fence runs the length of the section of road crossed by toads.
- Toads are collected at dawn, placed in a bucket and carried across the road to continue their journey.

This system was tried on the Pershore to Little Comberton road near Marybrook Farm and Ravenshill Wood, near the Ravenshill Reserve at Alfrick,

and proved highly effective. 955 toads were carried across the roads, with peak overnight counts of 115 at Marybrook Farm and 186 at Ravenshill Wood.

Jurjen recommends that once migration to the pond ceases then the fence can be transferred to the other side of the road to catch toads on the return journey.

### *Is your ARG planning a garden pond survey project this year?*

*Garden pond surveys are an excellent way of engaging the public in recording projects. Although the results have to be treated with caution (people are inclined to mistake smooth newts for great crested newts) they can yield some interesting data and the more questionable records can be followed up and investigated by ARG volunteers.*

*Records centres often lack data on widespread species, so involving the public in a garden survey project is a way of obtaining information that would otherwise be impossible to gather. A number of ARGs are planning garden survey projects this year so it would be good for these groups to liaise and share publicity materials where possible.*

*If your ARG is interested in organising a garden survey project this year and you'd like some support from ARG UK or would like to liaise with other groups running similar projects, please get in touch with David Orchard, vice chair of ARG UK at [argsl@btinternet.com](mailto:argsl@btinternet.com)*