



# Warwickshire Amphibian & Reptile Team

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Affiliated to the Warwickshire Wildlife Trust (Registered Charity Number 209200)  
and the British Herpetological Society (Registered Charity Number 205666)

Patron: Ken Livingstone MP

## WART NEWSLETTER: ISSUE NO. 21 AUTUMN 1999

*Forthcoming event*

**Tuesday 25<sup>th</sup> January 2000**

7.30 pm

## Brandon Marsh Nature Centre

### Annual General Meeting

According to the WART constitution the committee has to be elected annually by all WART members at the Annual General Meeting. The following committee members are willing to be re-elected and we are seeking nominations for a Secretary.

Chair	Jan Clemons
Vice-Chair	Andrew Thompson
Secretary	Vacant
Treasurer	Howard Eccles
Membership Secretary	Mark Hollowell
Newsletter Editor	Helen Newell

Ordinary members Jane O'Dell, Serena Eccles, Irena Kruszona, Andi Wolf

If you are interested in becoming further involved please ring Jan Clemons at least fourteen days before the AGM.

### New secretary please!

WART is badly in need of a secretary. The task is not too onerous and need only involve taking minutes of committee meetings. It's an opportunity to make yourself heard, as well as a good way to find out what we're up to!

Can anybody help us out please? The committee usually meets four times a year. Please contact any WART committee member if you could spare a few hours a year.

### Toad Crossing Signs

Do you know of a site where toads regularly cross the road every Spring? Some toad warning signs

are available from Warwickshire Wildlife Trust. Contact Jan for details.

## WART Website

Check out the new WART webpage developed by Nigel Clemons, which can be found at [www.angelfire.com/nc2/wart/index.html](http://www.angelfire.com/nc2/wart/index.html)

### **Herpetofauna Groups of Britain and Ireland West Midlands Regional Conference Sunday 26 September 1999 Brandon Marsh Nature Centre, Coventry**

40 people attended, with representatives of Amphibian and Reptile Groups from Herefordshire, Derbyshire, West Midlands, Gloucestershire, Warwickshire and Worcestershire, as well as representatives from Warwickshire and Worcestershire Wildlife Trusts, the Environment Agency and Solihull Borough Council.

#### **Biodiversity Explained - Andrew Thompson (Warwickshire Wildlife Trust)**

Andrew explained the background to BAPs: the Earth Summit in Rio de Janeiro in 1992 addressed the issue of preserving biodiversity. Humans affect biodiversity, by contributing to the extinctions of species. All varieties of diversity are important, rare and common, different species and differences within a species (subspecies or local variations).

The Biodiversity Steering Group created by the government produced a report detailing action that should be carried out. Government adopted the report, which included Habitat and Species Action Plans (including one for the great-crested newt).

The need for local BAPs (Biodiversity Action Plans) was identified, to show what was of importance locally (eg. the adder in Warwickshire). Various counties/regions are at different stages of producing action plans. Worcestershire has produced an action plan and Warwickshire will be working towards forming its own at a meeting on 5<sup>th</sup> October.

It is necessary to involve all the groups of people who influence biodiversity, including landowners, gamekeepers, etc. (there is a high proportion of agricultural land in Warwickshire). As well as action plans produced for areas of the country, groups of species may also have (sometimes regional) Action Plans, eg. for butterflies.

#### **The adder - A Cause for Concern - Sylvia Sheldon (WRAG)**

Sylvia Sheldon has been studying adders for 20 years, concentrating on the Wyre Forest since 1985, and monitoring intensively for ten years.

Individuals can be recognised by their markings, which vary considerably. Females do not breed every year or even every other year; they averaged 3 years between breeding, depending on food availability. More males than females are usually seen.

The population has decreased markedly (it has approximately halved in the last 5 years), and adders have disappeared from some areas. Groups of adders were encountered in the past, but they are now only found singly.

There are several likely causes of decline:

habitat destruction or disruption; 16 adders were destroyed during water pipe work. In another case, adders moved into a suitable field when shading made conditions unfavourable in their normal habitat, but then a new business park was created on the field; 25 adders were rescued, also grass snakes and slow-worms. Temporary disruption is tolerable if the habitat is returned to suitable condition.

forestry practices (increased use of heavy machinery),

human persecution; persecution on forest rides, after being forced there by excessive shade in other areas,

pheasants; pheasant rearing has intensified, and pheasants are known to predate on adders,

isolation; a sparse population results in a decrease in the number of encounters between individuals, which may inhibit breeding success. Adders tend to go "home" if moved, so moving them to a sparsely populated area achieves nothing.

possibly mild wet winters, which may disrupt hibernation.

There should be consideration for other species' needs when conservation work is carried out; management for one species can be detrimental to another. A dragonfly pond was created in place of the adders' hibernaculum.

The decline is especially worrying as the Wyre Forest is one of the better sites for adders in this vicinity; if action is not taken soon the adder could become rare.

### **Hont - Hungary Herp Heaven - Will Watson (WRAG)**

Will Watson spent Easter 1999 with the Toad Action Group in and around Hont, a village near Hungary's border with Slovakia, where the river Danube separates the two countries for some of its length. The river has a large floodplain with hectares of Common Reed beds, providing good habitat.

Each night, thousands of toads were helped across a road which separated their breeding ground from a hillside, giving a total of tens of thousands for the population. Each toad was weighed and measured by a group of students (many from other countries), experts and enthusiasts from different countries.

Most toads were common toads (*Bufo bufo*), some very large (170mm). Second most common was the common spadefoot (*Pelobates fuscus*). Fire-bellied toads (*Bombina bombina*) were also abundant, and had to be transported in a separate bucket as their toxic skins could kill some other species of amphibian.

Other amphibians seen included agile frog (*Rana dalmatina*), edible frogs (*R. esculenta*), tree frog (*Hyla arborea*), green toads (*Bufo viridis*), only one common newt (*Triturus vulgaris*), alpine newt (*T. alpestris*) and the Danube crested newt (*T. cristatus dobrogicus*) (both rare), "ordinary" great-crested newts (*T. cristatus*) were also seen, and the fire salamander (*Salamandra salamandra*). Reptiles included: sand lizard (*Lacerta agilis*), smooth snake (*Coronella austriaca*), green lizard (*Lacerta viridis*), and the European pond terrapin (*Emys orbicularis*).

A diseased agile frog with red-leg was seen, showing that Hungary also has this problem. There were also habitat destruction concerns, due to a lack of planning regulations.

Will explained that this was an inexpensive herp holiday, provided you were prepared to rough it, and volunteers are welcome for future studies; contact Will for details.

### **Herpetological Matters - Jan Clemens (WART)**

Jan thought the title Herpetological Issues would be more appropriate, as she wanted to discuss how captive bred animals could be useful in achieving the aims of BAPs.

Lowland heath, a good habitat for reptiles, has disappeared from many of its past sites. Habitat Biodiversity Action Plans propose restoration of overgrown areas which were previously heathland, by tree clearance and removal of the top leaf-litter layer to expose the heather seed bank.

Some years ago a recovery programme was initiated for Dorset sand lizards, involving the captive rearing of individuals followed by their release to sites where they had become extinct, such as Cornwall and north Wales.

The natterjack was introduced to Cannock in Staffordshire, in around 1980 (before the Wildlife and Countryside Act). Two years ago, the HCT cleared some trees for natterjacks and added some shallower scrapes for breeding; deeper ponds were being used by the commoner amphibian species to the detriment of the natterjacks. Some spawn was removed for genetic testing; but excess was then reared in captivity and returned as small toadlets to the site of origin. Two of these toadlets were encountered the following May.

While captive breeding or rearing may be an answer for some species, Jan knew of no case of captive-bred British snakes. London Zoo have a smooth snake captive breeding programme but this may be in some difficulties.

Ten years ago, Rugby High School for Girls created a pond, which was quickly colonised by frogs and smooth newts. 4 years after being built, 20 great-crested newts in all stages of development were found under a manhole cover.

Jan suggested that introduction of local great-crested newts as eggs or larvae to new areas would be a solution to its dispersal problems. Great-crested newts have now got a national Species Action Plan, and will also have local BAPs.

The grass snake is the commonest reptile in Warwickshire; in this case there is no need for captive breeding, just for the provision of more egg-laying sites.

The RHS vivarium was created with Dorset heath and lizards. Common lizards breed very well. Gravid females are removed prior to giving birth to aid survival of the young. Some babies escaped from the vivarium into a nearby dry stone wall, where they live happily, apart from some magpie and cat predation.

Slow-worms were originally kept in the vivarium and bred well, but the common lizards' tails provided a renewable food resource! They now live in the conservation area and have turned up in the car park.

Jan commented that there is a need to educate young people in herp conservation. Captive breeding and/or translocation can play an important part in local BAPs and should not be ignored.

### **Sustainable Urban Drainage - Opportunities for Herp Conservation Using the Source Control Approach - Bob Bray (Landscape Architect)**

Five years ago Bob Bray discovered that there was a problem with drainage systems in that gully-pots act as traps for amphibians. He realised that there was an opportunity to create amphibian-friendly habitat as part of a functional drainage system.

Problems with drainage: human development has damaged the Water Environment for centuries by inappropriate drainage.

- Quality: increased rates of runoff prevent natural cleaning and cause pollution,

- Quantity: accelerated rates of runoff increases flows which damage watercourses and cause flooding,

- Infiltration: collection of runoff in pipes prevents recharge to aquifers and groundwater,

- Wildlife: drainage causes habitat loss.

Gully pots usually collect rainwater on roads, but act as pitfall traps to small animals, especially herps. Research shows they are ineffective in trapping pollutants and contribute to pollution particularly in summer when watercourses are most vulnerable, as well as being costly to install and maintain. Drainage Engineers are generally unaware of the problems to herps.

Sustainable Urban Drainage: the "Source Control" approach provides a sustainable approach to drainage that replicates natural processes and has a minimal impact on the environment, as well as creating new maintained habitats potentially useful for herps.

There are 4 primary design guidelines which protect the Water Environment:

- Treatment of polluted water prior to release to watercourses,

- Control of the rate of flows to watercourses

- Infiltration of clean water to groundwater

- Environmental enhancement

The Source Control approach offers herps: new ponds and wetlands, control of pollution to ponds and watercourses, sympathetic maintenance, and solutions to the Gully Pot issue.

Source Control is an approach to urban drainage which deals with water at the place where it falls as rain, and collects, cleans and releases surface runoff slowly to streams, rivers and groundwater, this allows natural drainage processes to function in the landscape surrounding development.

Runoff from roads, paths, and car parks can be polluted, particularly in summer when watercourses are most vulnerable. Runoff is collected and stored to allow natural cleaning prior to infiltration or release to watercourses at "greenfield" rates of flow.

Source Control techniques include: swales which remove silt, filter strips, infiltration trenches and basins, porous pavement surfaces, constructed wetland eg. reedbeds, and detention and retention ponds.

Case study: the Oxford Motorway Service Area M40 design retains the natural drainage pattern of the area and an existing ditch to take water from the site. Key elements of the drainage approach are:

- roofwater is considered to be clean and drains directly to water features around the buildings, which then flows through the site to the ditch,

- porous paving for the car park stores and cleans water before release to wetland areas lower down the site,

- impervious tarmac for HGV parking drains through stone filled trenches to wetland ponds and reedbeds,

- control points where water flow can be monitored,

- a "first flush" storage pond, with a shut-of valve to contain spillages,

- a wetland to provide further treatment for pollutants,

- a balancing pond to provide further storage and act as an emergency environmental "buffer",

- an outfall at "greenfield" flow rates to the ditch.

The first 10mm of water collected, which carries most pollutants, is separated from the rest and directed to an interceptor pond. Occasional oil pollution has occurred at this pond, though the plants do recover, especially the waterside plants (the submerged aquatics are worst affected).

Source Control and Wildlife: Source Control meets the main aim of the Environment Agency: “to protect and improve our environment, and to help to achieve sustainable development”.

Source Control adds “value” to the landscape and ensures “care” for wetland habitats.

Wildlife opportunities at Oxford include:

- enclosing banks and hedgerows with native planting and locally sourced wildlife seeds,
- wet grassland swales with microhabitat niches to encourage biodiversity,
- permanent and temporary ponds to provide diverse breeding ponds,
- vegetation piles as result of maintenance for grass snake egg laying sites,
- elimination of habitat hazards like gully pots,
- long term sympathetic maintenance.

Junction 2 of the M42 (Hopwood Service Station) is also being designed in this fashion.

Pressure for Change: action by herp groups can: pressure local authorities to use this method, advise developers and consultants on the design and care of wetlands, monitor new populations to ensure their future, and alert planners to the problem of gully pots and offer the alternative which is promoted by SEPA and the EA.

Sustainable Urban Drainage Systems (SUDS): the Source Control approach offers opportunities for the expansion of sustainable amphibian and reptile populations.

The Environment Agency has recently highlighted the requirement for sustainable drainage of development sites in their video “Nature’s Way” and accompanying brochure. There is also a booklet available from CIRIA (engineers’ consortium): will be manuals available to practitioners.

### **Great-crested Newts in Local BAPs - Jim Foster (Froglife)**

The national Action Plan for great-crested newts is to retain existing populations and create 100 “new” sites per year. Great-crested newts suffer from pond loss, pond neglect (lack of management - most ponds in the past were farm ponds created and maintained for farm use, but these are no longer needed), habitat fragmentation (by roads etc.), fish (sticklebacks etc.).

The problems encountered when attempting to conserve the great-crested newt include lack of records of sites, poor use of records (they should be available for planners), environmental assessments that often miss newts, poor information available on the legal status of herps, lack of guidelines for best practice (mitigation), poor habitat management information, funding for management, and poor public awareness of herp issues.

To achieve objectives of the national BAP for great-crested newts, Amphibian and Reptile Groups (ARG’s) need to:

- produce lists of sites and landowners,
- liaise with local authorities to ensure that great-crested newt sites are recognised and protected. Local Plan policies, Structure Plan (protect important areas),
- get management advice and grant information to landowners,
- identify possible sites for creation of habitat,

(Bob Bray commented that translocation of great-crested newt eggs/young has worked in the past in work at Kew Gardens, and this could be useful where habitats were created).

- habitat management and liaison with other groups.

When surveying and recording, ARG’s should:

- concentrate on checking old great-crested newt sites and investigation of new ones, not re-surveying sites year after year,
- train more people for surveying,
- send records to the appropriate places,
- form links with planners,
- produce map of sites.

Connections with other ARG’s and other species-based groups can be valuable; there have been joint bat/newt evenings.

Great-crested newt conservation needs publicity. Froglife/HGBI provide courses, advice and great-crested newt grants under the Common Species Project.

ARG’s have a lot of work to do if these targets are to be met.

## Local Group Reports

**WRAG:** Alan Shepherd reported that there are 41 members, many of whom are background supporters. Several ponds have been surveyed, and there are more amphibian than reptile records. Some toad-crossing signs are to be put up. Toad crossings occur at earlier dates now. Marsh frogs were found in two ponds, next to fishing ponds; Alan suggested they may have been an accidental introduction with fish.

Will Watson (WRAG) has surveyed 20 ponds in Gloucestershire and 50 sites in Worcestershire.

In a Worcestershire survey funded by English Nature, 50% of ponds surveyed contained great-crested newts. There were some areas of deficiency, and some isolated ponds.

A student has been checking ponds in Gloucestershire with great-crested newt records.

**Derbyshire:** Chris Monk reported that they have approximately 100 members, mainly involved in toad surveys. A wildlife gardening survey had been carried out on various species including herps. Three local BAPs exist for different areas of Derbyshire. Reported great-crested newts often turn out to be smooth.

**WART:** Jan Clemons reported that WART is now 6 years old, with approx. 50 members. Each new member receives a membership pack. There is a new WART website. WART's next target is to generate publicity on herp matters. The Warwickshire Natural History Fair held at a Kenilworth School was attended by various groups including WART and proved useful in discovering new records as well as confirming old ones. The oddest request received this year was to remove frogs and find homes for them by a fish-pond enthusiast.

Helen Newell (WART) showed a newt-trapping technique which uses ten traps connected at 1-metre intervals and provides standardised records while making traps more easily retrieved.

Serena Eccles (WART) reported that at Kenilworth Common there has been some trouble with refugia being disturbed.

### The Pool Frog - A Report on Recent Work - Chris Gleed-Owez (WART)

Chris is an expert on identifying amphibian bones and assigning them to species, and has been using his knowledge to find out which herp species have occurred in Britain in the past. This work has suggested that the pool frog, previously considered introduced, may in fact be native.

There are three species of green frog (pool frog, marsh frog and edible frog) in Britain, mainly SE England introductions. One site in Norfolk, Thompson Common, was the last possible site for native pool frogs (unfortunately the last specimen from here died recently), the other sites are introductions. There are two historical records in Norfolk and Cambridgeshire which also appear to have been native. There are isolated Scandinavian records of the pool frog, where it is accepted as native.

Areas of research include genetic analysis, bioacoustics and palaeodistribution, to find out how long the UK populations were genetically isolated and whether the species was here before known Victorian introductions.

Archaeological sites yielded a pool frog bone over 1000 years old, obviously pre-dating Victorian introductions. Agile frog bones also turned up, also 1000 years old, at a Norfolk site, and moor frog turned up in Lincolnshire sites 1000 and 2000 years old.

About 3000 years after the ice retreated and the climate warmed, the land bridge to Europe disappeared c.7000 yrs ago. There was therefore plenty of time for warm-loving species to arrive. Pond terrapin shell fragments were found in Norfolk from 7000 years ago. Today it's a southern European species, but subfossils are also widely known from Scandinavia because the climate was then 2 degrees warmer.

Loss of habitat and land drainage are probably responsible for the decline of frogs in more recent times, possibly also climate change, e.g. 17th century "Little Ice Age".

English Nature will decide in April 2000 whether the pool frog has been shown to be native and therefore merits a Species Action Plan and re-introduction. Differences between mating calls of populations may indicate related groups; genetic studies should also indicate which European pool frogs are closest to the original British population, and therefore which ones to re-introduce.

### Brownfields v Greenfields - Alan Shepherd (WRAG)

Sometimes urban, or “brownfield”, sites are more valuable to wildlife than “greenfield”, which often consist of arable monocultures. However, planners tend to avoid allowing development on greenfield at the expense of brownfield sites containing greater biodiversity.

Alan Shepherd compared visits he had made to two sites: a derelict factory (1.7 hectares) and an area of farmland (15 hectares), where the smaller factory site produced far more wildlife species than the farmland. A map showed several urban slow-worm sightings. Development is proposed on the factory site; the developers want to move the slow-worms onto a new site which is currently without them.

Developers at another site were helpful and willing to make some changes for herps, but the Highways Department refused permission for lower kerbs.

WRAG have now persuaded the council to accept a statement in the SAP for slow-worms on the need for recognition of the importance of brownfield sites for this species.

The Regional Conference gave herpetologists in the West Midlands the opportunity to find out about other groups' activities, catch up on the latest problems and some new solutions, as well as have a good chat with like-minded enthusiasts!

## **WART Work-Parties at Kenilworth Common**

The Kenilworth Common work-party meets at the railway bridge on Common Lane, on the first Sunday of each month, 10 am - 1 pm. Contact: Howard Eccles (01926) 858378.

Contributions for the newsletter should be sent to Helen Newell.

Copy deadline for next issue: 30<sup>th</sup> November 1999.