

SxARG Toads & Other Amphibians Day Report

Meeting took place at the South Downs National Park centre at Midhurst on 15 February, with an attendance of almost 40.

Jim Foster from Amphibian & Reptile Conservation (ARC) gave the main talk of the day. Common frogs and toads are found all over the UK, but there are signs that there has been population decline in frogs in the SE probably due to disease (ranavirus). Toads are less abundant in upland areas (colder) and around The Wash (particularly intensive farming). Pool frogs have been reintroduced in East Anglia (see Bbc radio: <http://www.bbc.co.uk/programmes/b01lh96b>) and Natterjack toad are found mainly on Merseyside and Cumbria though there is a local population at Woolmer Forest.

Toads are mainly terrestrial animals spending only a few days at breeding ponds each year after metamorphosis. They take 3 years to mature and commonly live around 4, but up to 10 years. Toad eggs are laid in strings in large ponds and hatch into larvae (tadpoles), which tend to stay in groups living on algae and protozoa. They are not generally predated by fish, but they are attacked by invertebrates such as dragonfly nymphs. In June metamorphosis is complete and toadlets disperse from the pond in large numbers. Adults feed on most terrestrial invertebrates. The warts on the skin contain unpleasant tasting chemicals, which deter many predators though some species such as heron, grass snake, rats and otters do feed on toads. Some remove the skin before eating. Toads try to deter grass snakes by puffing themselves up so they look bigger.

There are 7 000+ amphibian species globally of which one third are declining and facing extinction. This is caused by loss of habitat, disease, over harvesting, introduction of alien predators and possibly climate change. Toads are not endangered, but declining in the UK, Reasons are thought to be habitat degradation by intensive farming, pond loss and roads. Roads cause mortality during breeding migration, but also by toads falling into drains and polluted water (oils,salt) running into water courses. Effective mitigation is through toad patrols, building new ponds on the right side of the road, curb drain bypasses and gully pot ladders, so amphibians can escape, and with new roads constructing underpasses or green bridges.

Why should we bother about toads? Part of a much wider food web, Spectacle of migration. Source of possibly useful new chemicals and cultural associations.

Toad Patrolling Peter King Chair SxARG

Toads migrate en masse to traditional breeding ponds from foraging sites, possibly a kilometre apart and often encounter roads. Migration begins Feb/Mar when the temperature is >5C, especially if the weather is wet and may last just a few days or in milder winters over some weeks. It is estimated that losses can be 20 tonnes/annum on roads. Froglife has 880 registered crossing sites. In 2013. 149 sites had toad patrols and 81 000 toads were helped across. Over the last 5 years 350 000 have been transported against 37 000 deaths so decreasing mortality by 90% .

Locally only 4 crossings are known and oddly these seem to be in areas of lower toad records. SxARG is looking for volunteers to monitor their locality to identify populations, road crossing points and hopefully set up toad patrols where needed.

Recording Wildlife, Jess Price , SxARG Treasurer

Records are invaluable for monitoring and conserving wildlife and informing developers. Sussex

Biodiversity Record Centre (SxBRC) at Woods Mill is the main hub for Sussex. For a record to be valid it must have a full date, grid reference (preferred) or postcode and name and contact details in case verification is required by an expert.. Web site gridreferencefinder.com is the easiest way of obtaining grid references. Records can be sent straight to SxBRC, preferably in electronic (spreadsheet) format, but SxBRC are now recommending a national gateway, iRecord. iRecord offers a straightforward form, especially for multiple entries and also the ability to upload photos, which helps greatly with verification of sightings.

Bev Wadge, Ponds and their Management, SxARG Pond Officer

Pond definition: Area 1 square metre to 2 hectares with water for at least four months/annum, Drying out can be beneficial as it removes all fish, major predators, from the pond and allows some specialist plants to thrive; ponds have greater biodiversity than many other water bodies. Natural ponds do exist, but most are now man made. Many ponds are degraded due to neglect, water pollution (pesticides, nitrate, herbicide) and invasive alien species.

If you wish to create a wildlife pond, shallow water (30cms) is better than deeper water. The water warms up more easily and photosynthetic plants grow better in shallow water and provide cover for animals. Icing in water is not a problem as photosynthesis continues under the ice keeping the water oxygenated. Turf removed before the pond is dug is useful for holding down and disguising the edge of the liner. Rainwater is much preferred. Some tall vegetation surrounding the pond provides cover for animals coming to and leaving the pond. This should give way to marginal and emergent plants, with floating and submerged plants further in.

Surveying for amphibians needs to be during the breeding season. Toads require 4 visits within 14 days of the arrival of the first pair. Newts are surveyed between March and mid July using powerful torches from dusk to midnight, and netting with up to 2mm mesh nets.

Paul Stevens, Amphibians at Arundel Wildlife Centre

Toads and grass snake are found in good numbers, slow worm, common lizard, newts and frogs are present, but at much lower density. This is probably due to fish predation of the newt and frog eggs. Toads are found in dry stone walls and the surrounding woodland and breed in the filtration pond and also the newer pond, where they prefer the reed and rush areas. They are able to climb a three foot wire fence during migration.