

all about

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NATTERJACK TOAD

Bufo calamita

There are two kinds of toad in Britain. The common toad which is usually brown with warty skin, and the much rarer Natterjack toad which is grey/green with a distinctive yellow stripe down the centre of its back. It has shorter legs which means it can run rather than hop or crawl like frogs or common toads. They are amphibians which means that they live both in and out of water; breathing air with lungs on land and through their skin when under water.

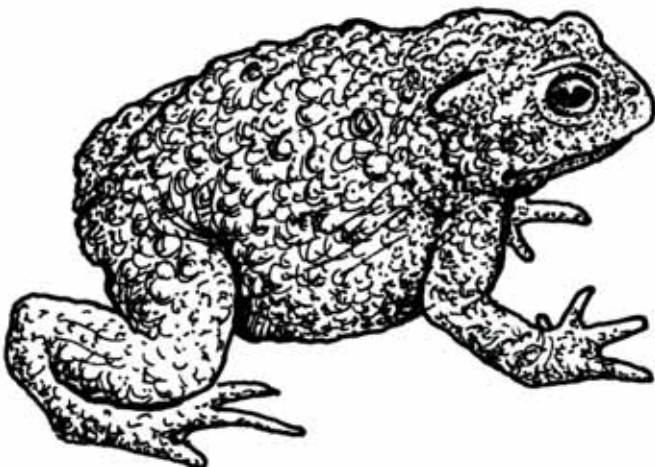
Where do they live?

Natterjack toads are common across much of southwest Europe but in Britain they are rare, confined to the heaths of

East Anglia and southern England, and sandy coasts of northwest England. In Scotland they are at the northwestern edge of their range in Europe, and are only found on the sand dunes and merse (saltmarshes) along the north coast of the Solway Firth. They are most abundant on and around the Caerlaverock National Nature Reserve, in and around the open pools and low banks along the edge of the upper merse. Natterjack toads need areas of short grass or heathland to hunt for food, and shallow pools of fresh or slightly salty water to breed. Their short stout legs are well adapted for burrowing. They only occur where there is sandy soil where they can burrow to avoid predators, the hot summer sun, and to hibernate in the winter.

What do they eat?

Adult Natterjack toads eat beetles, slugs, snails, worms, spiders and other animals which they catch with their long tongues. They hunt at night on areas of bare



ground or short vegetation, particularly the grazed areas of the merse, heathland and nearby farmland. The tadpoles are thought to eat algae and a variety of tiny animals found in the soil and water, spawn and even each other.

What eats Natterjack toads?

Natterjack toads are mostly nocturnal, coming out of hiding after dark to feed. The adults are eaten by a large range of animals and birds, including otters, foxes and hedgehogs, herons, gulls and terns. The spawn and tadpoles are eaten by fish, birds, toads, frogs and pond living larvae of insects such as dragonflies and beetles. Adults avoid predators by hiding in their burrows, under plants or debris washed up on the shore. They can run, but are not fast enough to escape a predator. If threatened, they can make themselves appear much larger by filling their lungs with air and standing on “tip toe”.

Life cycle

To reduce predation of spawn and tadpoles, the Natterjacks have adapted to a particular life cycle. They emerge from hibernation in spring, and breed from April to June. To avoid competition with frogs and common toads, Natterjack toads breed in warm shallow unshaded pools which may dry out later in the summer. This means fish, dragonfly and beetle larvae cannot become established reducing the loss of tadpoles and spawn. The males gather in and around these pools and attract a mate by calling at night or on dull days, with a continuous

rasping croak, which sounds like “rrrrrrrrrrrrrrrrrrRUP rrrrrrrrrrrrrrrrrRUP”. On still nights the chorus can be heard up to 2 km away. The females are attracted by the chorus and choose a mate. The eggs are laid in water by the female with the male holding onto her back and fertilising the eggs as they are laid in a double strand, which after a few days becomes a distinctive single strand. This is the toad spawn. Once the eggs are laid the females leave the pond, but the males stay behind. By this time of year the warmer water of the shallow pools means that the eggs develop quickly into tadpoles and then toadlets in as little as 6–8 weeks. The toadlets then leave the pond and hunt for small animals away from water. By October as they start to hibernate the young toads may have grown to as much as 25–30mm long. After 3–4 years they will have grown to about 60mm long.

People and Natterjack toads

Natterjack toads need special places to breed and hunt. These habitats are often places where people come to relax at the coast or where farm stock are grazed. The ponds and ditches that the Natterjack toads need to survive may become filled in, drained or polluted. We can help by making sure these habitats are conserved. Grazing by sheep and cattle in and around the pools used by Natterjack toads helps to maintain them in a suitable condition. The water plants which can quickly grow over a pond are eaten out, which maintains the open water. Stock grazing on merse also

helps maintain short grass. This attracts the animals which Natterjack toads eat, and allows them to find their food more easily.

Temporary fences around the pools in the early summer allow the Natterjacks to breed without being trampled or disturbed. Along the Solway Firth the pools, dunes, heaths and grassland which Natterjack toads depend on are being managed to allow them to continue to breed safely. New pools are being created, overgrown ponds cleaned out, the depth of the water carefully controlled, and nearby foraging areas grazed. Natterjack toads and the places they live in are specially protected by law so that we and future generations can enjoy seeing and hearing these fascinating amphibians.

[How can you help?](#)

We should try not to disturb wildlife and the habitats it needs. It is much better to watch wildlife living a natural life as it fits into the world we share. A number of organisations such as Scottish Natural Heritage, The Wildfowl and Wetlands Trust and the Scottish Wildlife Trust manage places for wildlife including Natterjack toads. They also run activities for adults and young people to learn about, help conserve and enjoy our natural heritage. The Young Herpetologists Club is concerned with both reptile and amphibian conservation. They can be contacted through The British Herpetological Society.

[Finding out more](#)

The Natterjack Toad

TJC Beebee, Oxford University Press

Amphibian Eye Witness Guide

(Dorling Kindersley)

Natterjack Toad – Species Recovery Programme, English Nature

Scottish Natural Heritage

Dumfries & Galloway Area Office

Carmont House, The Crichton, Bankend Road, Dumfries DG1 4ZF

The British Herpetological Society, c/o Zoological Society of London, Regents Park, London NW1 4RY

Herpetological Conservation Trust, 665a Christchurch Road, Boscombe, Bournemouth BH1 4AP

The Scottish Wildlife Trust, Cramond House, Cramond Glebe Road, Edinburgh EH4 6NS

The Wildfowl and Wetlands Trust Scottish Centre, Eastpark Farm, Caerlaverock, Dumfries DG1 4RS

A poster of a Natterjack toad is available free of charge from Scottish Natural Heritage, Dumfries and Galloway Area Office, Carmont House, The Crichton, Bankend Road, Dumfries DG1 4ZF

Glossary

Habitat

The place in which an animal or plant lives.

Merse

An area of grassland (sometimes grazed by cattle and/or sheep) near to the coast, which is occasionally flooded by the sea.

Predators

Animals which feed on other animals in order to live.

Hibernation

A sleep-like state which allows an animal to survive the winter.

