

# NATTERJACK TOAD

## *Epidalea calamita*

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Natterjack Toads and their breeding sites are protected by UK and European legislation. Inappropriate or lack of management is currently the greatest threat to the Natterjack Toad at its existing sites in Cumbria.

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Natterjack Toad © Stephen Hewitt

### Legal and Conservation Status

- Annex IV Habitats Directive (European Protected Species)
- UK Protected Species
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in England
- Cumbria Biodiversity Action Plan species

#### ***The Natterjack Toad is protected under:***

- Regulation 39 of the Conservation (Natural Habitats &c) Regulations 1994 (as amended) (Schedule 2) as European Protected Species <sup>1</sup>.
- Section 9 of the Wildlife and Countryside Act 1981 (as amended) (Schedule 5) <sup>2</sup>.

#### ***It is an offence to:***

- Intentionally <sup>2</sup> or deliberately <sup>1</sup> capture, injure or kill a Natterjack Toad.
- Damage or destroy a breeding or resting place of a Natterjack Toad <sup>1</sup>, or intentionally or recklessly damage or destroy any structure or place used for shelter or protection <sup>2</sup>.
- Intentionally or recklessly disturb a Natterjack Toads in a place used for shelter or protection <sup>2</sup>, or deliberately disturb Natterjack Toads in such a way as to be likely significantly to affect (i) the ability of any significant group to survive, breed, rear or nurture their young, or (ii) the local distribution or abundance <sup>1</sup>.
- Intentionally or recklessly obstruct access to a place used for shelter or protection <sup>2</sup>.
- Possess a Natterjack Toad (alive or dead), or any part of a Natterjack Toad <sup>2</sup>.

(This summarizes the main points of the law.)

## Habitat

In Cumbria the Natterjack Toad is largely coastal in distribution, using shallow, freshwater pools in sand dunes, and ponds and ditches in the upper regions of saltmarshes and low lying fields. Occasional tidal inundation of such pools can be beneficial to Natterjacks, which can tolerate some salinity, since it tends to make them unsuitable for other amphibians and predatory species. However, an input of fresh water is essential to reduce the salinity in time for the Natterjack Toad breeding season.

One Cumbrian population is on a previously industrial ironworks site and there are two inland sites in the county, one in a disused sand quarry where the toads breed in shallow depressions, the other on heather moorland where peat bog streams and pools are used for breeding.

In southern England Natterjack Toads are found on lowland heath areas.

### ***Cumbria Key Habitats that are particularly important for Natterjack Toads include:***

Heathland	Coastal Habitats above High Water
Open Mosaic Habitats on Previously Developed Land	Coastal and Floodplain Grazing Marsh

## Ecology

Natterjack Toads require a combination of suitable breeding pools for spawning and larval development and an adequate area of terrestrial habitat for adults and juveniles once metamorphosed.

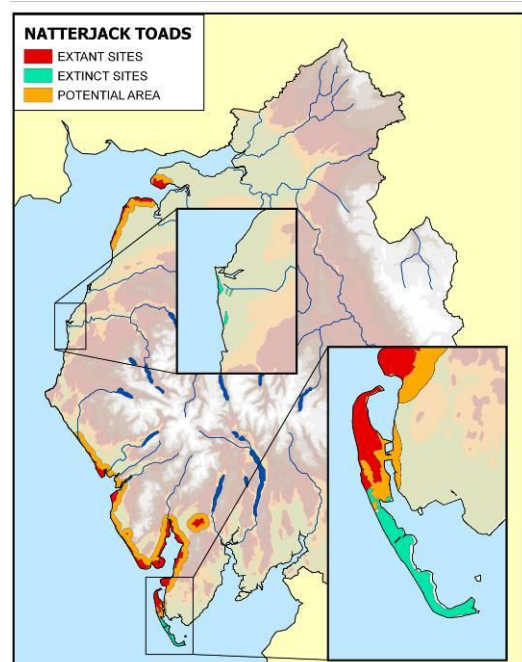
The breeding season starts later than most amphibians in April with the male making a distinctive call to attract females to the ponds. Natterjacks can travel quite long distances to locate new breeding pools. The toad has a long breeding season (late April to July). Spawn is laid in strings and tadpoles are small and black. Shallow water warms up quickly, aiding the development of tadpoles and enabling them to metamorphose before the pools dry up. Natterjacks favour pools which tend to dry up in late summer since they also tend to support fewer invertebrate predators of toad tadpoles, and are less likely to be used by common frogs and common toads which compete with natterjacks for food and other resources.

Natterjacks develop quickly in the shallow warm water and the yellow stripe along the back is soon visible on young toadlets. They are active predators and need large areas of bare ground or very short vegetation for hunting their invertebrate prey.

Outside the breeding season Natterjack Toads live on dry land so this is as important habitat as the breeding ponds. It is also essential that suitable places to hide throughout the day and to hibernate in winter are available. Sandy banks allow them to create burrows and stone walls or piles of stones also provide excellent hiding places.

## Distribution

The Natterjack Toad is confined to Europe and the UK currently holds about 6% of all known Natterjack Toad sites. In the past 100 years 75% of the known UK sites have been lost.



Cumbria currently supports about 50% of all UK Natterjack Toad sites. They are found along the Cumbria coast with a sizeable gap covering the urban west Cumbrian towns. The Natterjack Toad became extinct at its Workington site around 1988, and many other sites appear to support declining numbers of adults, mainly due to habitat deterioration.

## Conservation Issues

The loss of breeding ponds by siltation or destruction by infilling or inappropriate management/over-deepening has reduced the number of breeding sites. Deterioration in the quality of breeding ponds due to the encroachment of vegetation, or the presence of predators or competitors is resulting in a reduction in numbers. Some ponds dry up too quickly during the breeding season in dry summers. Developments which either prevent tidal inundation or affect the freshwater input (such as sea walls) are likely to be detrimental.

Loss of terrestrial habitat through unsuitable management, or development, impacts upon feeding and hibernation habitat. Disruption to habitat through beach cleaning operations, the driving of motor vehicles along the shore and other activities will impact upon the formation of embryo dunes and damage the dynamic process of sand dune formation. Increased public access may lead to increased disturbance and habitat damage. Fragmentation of habitat and barriers to movement are creating fragmented, isolated and potentially unviable populations.

## Planning Considerations

- Part IV of ODPM Circular 06/2005: Biodiversity and Geological Conservation sets out the wide range of legislative provisions for conservation of species protected by national and international law. It emphasizes the need for ecological surveys to establish the presence of protected species and for protection measures to be in place through conditions and/or planning obligations before planning permission is granted. It also advises that local authorities should consult Natural England before the planning decision is made.
- Natterjack Toads have a limited distribution on coastal sand dunes, saltmarshes and specific other locations. Terrestrial habitat is as important to the survival of the population as breeding ponds.
- Any proposed development that may affect Natterjack Toads should trigger a survey; as a guide any proposed development within 1km of a known Natterjack site has the potential to impact upon their activity.
- Surveys for Natterjack Toads and their use of habitat cannot be carried out adequately during the winter months. This may mean that decisions have to be delayed until after a suitable survey window.
- Any development that would impact upon Natterjack Toads and/or significant habitat would require adequate protection and mitigation measures and the developer would require a European Protected Species Mitigation Licence, under the Habitats Regulations 1994, to proceed.

Developments with potential impacts are:

- Sea defence schemes which are damaging because they prevent the tidal inundation of upper saltmarsh pools, disrupt the flushing of the remaining saltmarsh by fresh water from the land, and therefore impact upon the natural cycle of sediment deposition that creates new saltmarsh and dune.
- Housing, industrial and leisure industry developments (golf courses and holiday developments), as well as to forestry and agriculture, which can lead to direct habitat loss.
- Developments that encourage concentrated access to coastal sites that support Natterjack Toads.

## Enhancement Opportunities

- In areas where Natterjack Toads may occur the potential for enhancement of breeding ponds, foraging habitat and movement corridors should be maximised.
- New developments may provide opportunities to create or restore habitat to link Natterjack Toad sites, or to create new breeding ponds, terrestrial habitat or hibernation areas, in particular creation of satellite sites within 1 km of a known breeding site.
- Tidal inundation and managed retreat would provide significant opportunities for habitat creation.
- Sand and Gravel extraction has tremendous potential for Natterjack conservation through future habitat creation and restoration schemes.

## Further Information

[Natural England Wildlife Management & Licensing Service](#)

[European Protected Species: Mitigation Licensing - How to get a licence](#), Natural England 2009

[Natterjack Toad: European Protected Species, Natural England Species Information Note SIN009](#)

[Disturbance and protected species: understanding and applying the law in England and Wales](#)

[Natterjack Toad information](#), Herpetological Conservation Trust

[Herpetofauna Workers Manual](#)

[Natterjack Toad Conservation Handbook](#), English Nature Species Recovery Programme 1996

[UK Biodiversity Action Plan](#)

[Cumbria Biodiversity Action Plan](#)

## Contacts

- **Amphibian and Reptile Conservation**, 655A Christchurch Road, Boscombe, Bournemouth, Dorset BH1 4AP. Tel: 01202 391319, website: [www.arc-trust.org](http://www.arc-trust.org)
- **Natural England**, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria, LA9 7RL, Tel: 0300 060 2122, [cumbriaplanning@naturalengland.org.uk](mailto:cumbriaplanning@naturalengland.org.uk)
- **Cumbria Amphibian and Reptile Group (CARG)**, Sam Griffin, Tel: 016973 23939

## Current Action in Cumbria

- ARC organises bi-annual partnership meetings to discuss population monitoring and management.
- ARC is also carrying out a Natural England Countdown 2010 funded project, which will run until March 2011. For more information contact William Shaw on 01229 719658.
- The Cumbria Amphibian and Reptile Group monitor toad populations and seek to improve public understanding through events.
- Natural England promotes appropriate management on SSSIs through Higher Level Stewardship Schemes and through direct management work on National Nature Reserves managed by Natural England.
- Site management to benefit Natterjack Toads carried out by a wide variety of land management organisations across Cumbria.