

## Natterjack Toad (*Bufo calamita*)



*Natterjack toad*  
Copyright: Philip H Smith

The natterjack toad is the rarest of six amphibians native to the British Isles. Its warty skin allows the adult to be easily identified as a toad rather than a frog, while a yellow stripe on its back distinguishes it from the common toad.

Natterjacks breed in shallow, temporary pools in open, early successional, habitats. These habitats are unsuitable for our other amphibians and in this way the natterjacks avoid competition with closely-related species.

Natterjack toads are active predators and their hind limbs are short compared with other toads, allowing them to run after prey over short distances. Both limbs are adapted for digging and the toads excavate burrows to avoid extremes of temperature, dryness and predators.

Often, several natterjacks of different ages will share the same burrow. In winter they dig deeper and hibernate in their burrows. They often dig under objects lying on the ground surface. Sometimes toads adopt ready-made holes and there are accounts of natterjacks climbing steep sand-banks to hibernate in tunnels left by the previous season's nesting sand martins.

**Main Habitat(s):** (In Britain) Upper saltmarsh; sand dunes; heathland.

### **National Status**

The natterjack has declined markedly in both numbers and range since the beginning of the 20<sup>th</sup> century. Declines have been caused by the loss of habitat to housing, industrial and recreational developments as well as to forestry, agriculture and plant succession. The creation of sea defence mechanisms and beach-cleaning operations disrupt dynamic natural process (e.g. sand dune formation) and have caused the loss of natterjack habitat.

The species remains in only 39 UK natural sites mainly concentrated around the north western and eastern coasts of England. It has been introduced to a further 13 locations, either formerly occupied sites or ones specially created or modified for the purpose.

It is included under Schedule 2 of the Habitat Regulations and Schedule 5 of the Wildlife and Countryside Act. It is also a UK BAP Priority species.

### **Regional Status**

The North West of England is the natterjack's UK stronghold. Colonies occur on the Sefton Coast, but the main concentration of UK sites (50% of the total) is in Cumbria.

### **Local Status**

There are no extant colonies in Lancashire. Natterjacks formerly occurred at one isolated coastal site near Cockerham. The colony declined to extinction after the building of a sea wall in 1981. The last recorded breeding attempt was made in 1987 and the last toads were seen in 1990.

### **Current factors affecting the Species**

There are no populations currently in existence in Lancashire. However, if reintroduction were attempted it would be necessary to create and maintain suitable conditions for the toads on any site to which they were introduced.

To sustain a viable population of toads a site would need to provide suitable ponds for breeding and an adequate area of terrestrial habitat for adults and juveniles.

Shallow, temporary ponds of near neutral pH are required. At saltmarsh sites the natterjacks may use upper saltmarsh pools that are subject to occasional tidal inundation but this is only after these pools have been 'freshened' by rain or an inflow of freshwater.

The creation of deep permanent water bodies in natterjack habitat results in the build up of populations of invertebrates that prey on tadpoles and, more seriously, common toads whose tadpoles both predate and suppress the development of natterjack tadpoles.

Short turf or bare ground is essential to the adults since this is the terrain over which they hunt their prey (mainly ground beetles). The spread of rank grasses and scrub is detrimental so stock grazing would probably be necessary. The particular short sward favoured by the toads is often associated with high levels of rabbit grazing.

A site must also provide sufficient opportunities for toads to hide during the day and to hibernate in winter. Sandy banks, old stone walls or even simple piles of rock can contribute hiding places.

An unsuccessful attempt was made in the 1960s to introduce natterjacks to Lytham St. Annes Nature Reserve. Spawn was laid and calling heard for two or three years but a colony did not establish. It is thought that dune slacks were too well-vegetated and this allowed common toads to compete with the natterjacks.

### **Current Action / Mechanisms**

Cockerham Marsh SSSI remains a site where, with appropriate management, a colony could be re-established in Lancashire.

Major habitat restoration work has been undertaken by land owners and managers on the Sefton Coast partly as a result of the Species Recovery Programme (1993-95) and the Sefton

Coast Life Project (1996-99). These works included scrape/pond creation and re-profiling, grazing and mowing, scrub clearance and beach management. Habitat management continues on the coast and the Herpetological Conservation Trust (HCT) is producing an updated Conservation Strategy for natterjacks.

Translocations are being undertaken to extend the range of the natterjack on the Sefton Coast. Translocations are being considered at a few Cumbrian sites.

The intensification of agriculture has adversely affected some of the natterjack colonies on the Cumbrian coast and, to take account of this, EN (English Nature) and HCT have drafted a new five-year Strategy for natterjacks in Cumbria.

All colonies are monitored by site managers and/or volunteers and the results are circulated annually in the form of Site Register updates. A full reprint of the updated Site Register will take place in 2000.

The HCT has produced an A4 leaflet for free distribution to landowners, managers and other interested persons.

### Objectives, targets and proposed actions for natterjack toad in Lancashire

Broad Objective:	A. Re-establish the natterjack toad as a breeding species in Lancashire			
Operational Objective	Action Required (Priority)	Partners	Time-scale	Type
1. Establish viable populations of natterjack toads by introduction at at least one site by 2005.	1. Produce a list of suitable translocation receptor sites by early 2002 and consult with landowners. (High)	HCT, EN, LWT, LCC	S	RM, A
	2. Identify suitable translocation donor site(s) by 2002 and agree translocation procedure with site owners and EN. (High)	HCT, LWT, CWT	S	RM, A
	3. Prepare one translocation receptor site by 2003. (High)	HCT, LWT, EN, EA	S/M	LM
	4. Collect and release translocated spawn / tadpoles to establish populations. (High)	HCT, EN	M	LM
	5. Manage sites to maintain suitable conditions for natterjack. (High)	LWT, HCT	O	LM
	6. Monitor on annual basis progress of translocation schemes. (High)	HCT, LWT	O	RM

**Related Action Plans:**

- Sand dunes HAP
- Saltmarsh HAP

**References & additional reading:**

1. Beebee, T. & Denton, J. (1996) The Natterjack Toad Conservation Handbook. English Nature
2. The Herpetological Conservation Trust (1999) The Conservation of Natterjack Toads – a brief guide to habitat management.
3. Beebee, T & Griffiths, R. (2000) Amphibians and Reptiles. New Naturalist No.87. Harper Collins, London.
4. Beebee, T (1983) The Natterjack Toad. Oxford University Press, Oxford.

Date: April 2001.