

Natterjack toad: European protected species

Natterjack toads *Bufo calamita* change colour to blend in with the background. They look similar to common toads and the easiest way to tell the difference is that natterjack toads have an obvious yellow strip running down their back. Also, natterjack toads have a black iris, while the iris of a common toad is amber.

Biology and distribution

Location

The natterjack toad has a highly restricted distribution in England. There are around 50 populations, the main areas being Suffolk, and the Norfolk, Lincolnshire, Lancashire and Cumbrian coasts. Generally smaller and more isolated populations are found in Bedfordshire, Staffordshire, Kent, Oxfordshire, Surrey, Hampshire and Dorset. Natterjack toads previously had a wider distribution and much higher population density, but have undergone serious declines in the 20th century. Some of the current populations are the result of reintroductions, mostly done as carefully planned conservation projects by The Herpetological Conservation Trust in conjunction with English Nature/Natural England, local authorities, NGOs and sympathetic landowners.

Habitat

The species is found almost entirely on three habitat types: sand dunes, saltmarsh and lowland heath. The key habitat requirements are shallow (often ephemeral), warm ponds for breeding and open, sandy terrestrial habitats for foraging, dispersal and hibernation.

Over 80% of Natterjack toad populations have been lost over the last 100 years as dunes become more fixed and heaths become scrubbed up; such conditions benefit the commoner amphibians, which are superior competitors. Further declines have resulted from a loss of habitat through housing and industrial

development on the coast and the fragmentation of habitats.



Photograph by Jim Foster

Lifecycle

Adult natterjack toads emerge from burrows (usually constructed themselves by digging in soft sand) around April. Males converge on the breeding pond and call on warm nights; the call is a distinctive 'ratchet' sound that can be heard over 1 km away on still nights. Females lay a pair of spawn "strings" in shallow water. When the eggs hatch out, the resulting larvae (tadpoles) can develop very quickly. In warm conditions metamorphosis can be achieved in around one month. The emerging juvenile toads seek out moist conditions in the surrounding habitat. It takes around 3-4 years to reach sexual maturity. Natterjack toads may disperse across several hundred metres, occasionally much further. Larvae feed on algae and detritus in the pond, while

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juveniles and adults feed on small invertebrates. Adults grow to around 70 mm length.

Legislation

The natterjack toad is strictly protected under the Wildlife & Countryside Act 1981 (as amended) and the Conservation (Natural Habitats &c.) Regulations 1994 (as amended). Capturing, disturbing, injuring and killing toads is prohibited, as is damaging or destroying their breeding sites and resting places (note that this is a simplified summary of the legislation; see other texts for details).

Issues

Natterjack toads and farming

Common farming operations can have both positive and negative effects on natterjack toads. Grazing coastal marsh and dunes will often keep habitat in good condition for natterjack toads. Conversely, many farming activities would inevitably kill individual toads or damage resting places if they are not taken into account. So long as there is no large scale loss of high quality habitat and breeding ponds are kept intact, small scale losses are unlikely to compromise populations.

If an activity is likely to result in an offence (such as disturbing toads), there are several options to proceed lawfully:

- Avoid carrying out the work.
- Alter the methods or timing to avoid adversely impacting on the species.
- Obtain a licence to allow the work to continue.

A licence application would need to demonstrate that:

- the authorised activities are for a specified purpose (most commonly over-riding public interest or conservation);
- there is no satisfactory alternative; and
- the activities would not compromise the favourable conservation status of the species. Some activities would require habitat creation to offset damage or destruction in order to meet the third test.

Natterjack toads and agri-environment schemes

For agri-environment agreements (eg Environmental Stewardship), ensuring the optimal timing of work will generally be the best approach (as avoidance may not be compatible with the aims of the agreement).

As general guidance, invasive works on breeding ponds are best done during August to March (consistent with restrictions on timing included in your agri-environment agreement), as toads are unlikely to be present (they hibernate on land, and rarely use breeding ponds outside the spring-early summer period).

Common activities that might involve offences include:

- Ploughing close to breeding ponds.
- Removal of dense vegetation using methods that involve ground disturbance.
- Removal of materials (dead wood, rubble etc) piled on the ground.
- Renovation of buildings where ground excavations are involved.

Environmental Stewardship options and capital items where careful timing and planning will be essential to minimise the risk of committing an offence include the following:

- Maintenance and restoration of successional areas and scrub (HC15, HC16).
- Maintenance, restoration and creation of wet grassland (HK09, HK10, HK11, HK12, HK13, HK14).
- Maintenance, restoration and creation of semi-improved or rough grassland (HK15, HK16, HK17).
- Restoration of forestry areas to lowland heathland (HO03).
- Restoration of sand dunes (HP02).
- Maintenance and restoration of ponds (HQ01, HQ02, PR, PRP).

Common activities that are unlikely to result in offences include:

- Tree surgery, pollarding and coppicing.
- Standard management of fish ponds, duck ponds and narrow ditches.

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- Standard hedge, fence and stone wall management.
- Mowing grassland.
- Grazing grassland.

Many natterjack toad conservation activities are aimed at restoring habitats to open swards with minimal scrub content and maintaining temporary, shallow, little-vegetated ponds. Environmental Stewardship options are often able to assist with this.

Further information

If you have internet access please read:
European protected species: frequently asked questions:
www.naturalengland.org.uk/conservation/wildlife-management-licensing/habsregs.htm

Contact us

For questions regarding Wildlife Licensing please telephone 0845 6014523 (local rate) or email: wildlife@naturalengland.org.uk

If you have any concerns about your agri-environment agreement and its impact on natterjack toads please contact your local Natural England adviser. If you do not know your local adviser or for any other enquiries please contact the Natural England Helpline on 0845 600 3078 or email: enquiries@naturalengland.org.uk.

Natural England Information Notes are available to download from the Natural England website: www.naturalengland.org.uk.