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Ones to watch out for...



North American Bullfrog
Lithobates catesbeiana

Overview

- Key ID features
- Comparison with other species
- Basic ecology
- Worldwide distribution
- Known status in the UK
- Likely vectors for spread
- Problem for the UK?
- Future

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Key ID features

- Very large (up to 20cm)
- Tadpoles grow to up to 15cm
- Colour - mottled green to brown
- Males have ear drum larger than eye
- Fold of skin running from behind eye and round ear drum.
- No ridges along back
- Males have deep booming cattle-like call



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Basic ecology

- Occur from sea level to 2000m
- Inhabit most fresh water bodies
- Prefer calm water and deep pools in rivers and streams
- Females can lay a mass of up to 20,000 eggs
- Tadpoles overwinter in waterbodies – 2 years to metamorphose
- Feed during both day and night
- Will eat pretty much anything, including other amphibians, their own kin and birds

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Worldwide distribution

Natural range:

- Eastern North America,
- South-east Canada
- Parts of Mexico

Introduced range:

- Western US
- 25 other countries



Status in the UK



- Single male found in East Sussex 1996
- Second adult discovered 1998
- Tadpoles found in Pond 1999
- Natural England controlled this population and it was successfully eradicated (9000+ caught, monitoring ongoing)
- Second breeding population in Essex, Natural England are considering appropriate action

Likely vectors for spread?



- Deliberately released as unwanted pets
- Accidental escapes
- Tadpoles introduced along with fish raised in hatcheries
- Widely sold in garden centres – now banned

Worldwide

- Aquaculture - one of the most frequently cultivated edible frogs, world-wide.
- Aquarium trade
- Natural dispersal – will disperse throughout entire watersheds
- As a source of biological pest control

Problem for the UK?

- Primary concerns are competition with, and predation upon, native amphibians and reptiles
- Disease transfer – Bullfrogs known carriers of Chytrid fungus throughout their range
- Common Toad known to be susceptible to Chytrid
- This species has been nominated as among 100 of the "World's Worst" invaders - IUCN Invasive Species Specialist Group (ISSG)

The future...

- Current status of breeding population in Essex will be monitored and action is planned
- Future breeding populations are likely to occur
- Vigilance is required to manage spread
- Sightings of Bullfrogs should be reported to:
 - Natural England,
 - Herpetological Conservation Trust (HCT), and
 - Local Amphibian and Reptile Group/Recorder (ARG)

More information on North American Bullfrog

- Alison Howson/Danial Winchester (RPS)
howsona@rpsgroup.com or winchesterd@rpsgroup.com
- Natural England
Ruth.Waters@naturalengland.org.uk
- Surrey Amphibian and Reptile Group (SARG)
<http://www.surrey-arg.org.uk/SARG/SARG2.shtml>
- HCT - Alien Encounters
<http://www.alienencounters.org.uk>
- UK Chytridiomycosis Survey
<http://www.zsl.org/field-conservation/uk-native-species/ukchytridiomycosis,842,AR.html>
- Review of non-native species legislation and guidance – Ecoscope
<http://www.defra.gov.uk/wildlife-countryside/resprog/findings/non-native/ecoscope-sect4.pdf>
- IUCN Global Amphibian Assessment
www.globalamphibians.org, www.nonnativespecies.org, www.naturalengland.org.uk
- ARG UK
www.arg-uk.org.uk

Credits

Danial Winchester - Collation of Bullfrog facts

Kevin Morgan – Bullfrog and child, Bullfrog portrait in grass

Jim Foster (Natural England) – Info on UK control programmes

Derek Ramsey – American Bullfrog

Alan D. Wils – Bullfrog nature pics

Dawson Images – Bullfrog tadpole

Carl D. Howe – North American Bullfrog

IUCN Global Amphibian Assessment – Worldwide distribution map

Dr Julia Wycherley MBE – Pool frog, Marsh frog sound files