American Bullfrog, *Lithobates catesbeianus*

### Overview

**Short description of *Lithobates catesbeianus*, American Bullfrog**

Bullfrogs are up to twice the length of the native common frog, and draw attention by their loud, deep calls. Their ear drum is obviously larger than the eye, with a conspicuous dark outer ring. The lack of skin folds along the back, and the single vocal sac positioned beneath the chin, help to distinguish this from other non-native frogs in GB. Tadpoles grow to up to 15 cm.

**Description of *Lithobates catesbeianus*, American Bullfrog status in GB**

The American bullfrog is limited to a few populations in GB and has been the subject of targeted eradication.

**Habitat summary: *Lithobates catesbeianus*, American Bullfrog**

It occupies any type of still or slowly moving water, especially where aquatic and bank vegetation are abundant, in the native range from sea level to 2000m. Calm water that will not dry out and deep pools in rivers and streams are preferred.

### Overview table

<table>
<thead>
<tr>
<th><strong>Environment:</strong></th>
<th>Terrestrial and Freshwater</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Species status:</strong></td>
<td>Non-Native</td>
</tr>
<tr>
<td><strong>Native range:</strong></td>
<td>Northern America, Mexico, Alberta, British Columbia, Labrador, Manitoba, New Brunswick, Nova Scotia, Ontario, Saskatchewan, Yukon</td>
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<tr>
<td><strong>Functional type:</strong></td>
<td>Predator</td>
</tr>
<tr>
<td><strong>Status in England:</strong></td>
<td>Non-Native</td>
</tr>
<tr>
<td><strong>Status in Scotland:</strong></td>
<td>Non-Native</td>
</tr>
<tr>
<td><strong>Status in Wales:</strong></td>
<td>Non-Native</td>
</tr>
<tr>
<td><strong>Location of first record:</strong></td>
<td>Bexhill (14)</td>
</tr>
<tr>
<td><strong>Date of first record:</strong></td>
<td>1996</td>
</tr>
</tbody>
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### Invasion history: *Lithobates catesbeianus*, American Bullfrog

**Origin**

The bullfrog is native to eastern North America but has been introduced west of the Rockies and to around 25 countries worldwide during the past two centuries. At least 25 separate introduction attempts have been made in Europe.
First Record
The first single bullfrog in GB was found in East Sussex in 1996, and breeding was first noted at the same site in 1999.

Pathway and Method
Bullfrogs have been deliberately released as unwanted pets and have escaped from garden ponds where they had been confined as tadpoles. Others have been imported accidentally with fish stocks or aquatic plants. Introductions outside GB have also been made for biological control of insect pests and as stocking for human consumption.

Species Status
The initial population was successfully eradicated by 2004, after the removal of at least 9,000 animals. In 2006, a further breeding population was discovered in Essex: 100 animals were removed in 2007 but only five in 2008, suggesting that the population had already been greatly reduced. Presence, but not breeding, has been noted at a few further sites in SE England.

Ecology & Habitat: Lithobates catesbeianus, American Bullfrog

Dispersal Mechanisms
Natural dispersal is both terrestrial and via rivers, covering whole water catchments. Froglets cross arid country between ponds and are known to have travelled at least six miles in a few weeks.

Reproduction
In southwest France, the breeding period lasts from May until early September. Tadpole development takes 1–2 years; because of the long development period, pools that might dry out are generally avoided.

Known Predators/Herbivores
Predators include carnivorous fishes and probably some mustelids and herons. The main source of predation, in high-density areas, appears to be cannibalism. There are no known predators of adult bullfrogs in GB.

Resistant Stages
Bullfrogs hibernate underwater between October and March.

Habitat Occupied in GB
Bullfrogs might be found in GB in any freshwater pool or backwater that is unlikely to dry out.

Distribution: Lithobates catesbeianus, American Bullfrog
Breeding populations discovered in East Sussex and Essex have been removed.

Impacts: Lithobates catesbeianus, American Bullfrog

Environmental Impact
This species feeds day and night on a wide range of prey, including amphibians, fishes, small mammals, ducklings and small bird species, molluscs, crustaceans and insects. Both predation and competition may adversely affect populations of native frogs, toads and newts. American bullfrogs and other non-native amphibians may carry the chytrid fungus Batrachochytrium dendrobatidis, and can spread the disease chytridiomycosis to native amphibians.

Health and Social Impact
None known.

Economic Impact
The cost so far of control measures and monitoring in GB has been estimated to be more than £100 000.

References & Links: Lithobates catesbeianus, American Bullfrog

Identification
Biology, ecology, spread, vectors


Management and impact


General


full text