

## Muskrat, *Ondatra zibethicus*

### Overview

#### Short description of *Ondatra zibethicus*, Muskrat

Musk rats are semi-aquatic rodents, related to voles and lemmings but considerably larger. They are intermediate in size between brown rat and coypu, generally around 50 cm in length including the tail. Their thick fur is darkish brown, slightly paler on the underside. The tail is slender and scaly, and flattened from side to side. The ears are small. The lips can close behind the incisor teeth, facilitating underwater chewing.

#### Description of *Ondatra zibethicus*, Muskrat status in GB

Musk rats established several widespread centres of population in GB in the 1930s, but were eradicated by 1937.

#### Habitat summary: *Ondatra zibethicus*, Muskrat

Musk rats occur in lakes, ponds, rivers and associated marshland.

### Overview table

Environment:	Terrestrial and Freshwater
Species status:	Non-Native
Native range:	Northern America, Alberta, British Columbia, Labrador, Manitoba, New Brunswick, Nova Scotia, Ontario, Saskatchewan, Yukon
Functional type:	Herbivore
Status in England:	Non-Native
Status in Scotland:	Non-Native
Status in Wales:	Non-Native
Location of first record:	?
Date of first record:	1929

### Invasion history: *Ondatra zibethicus*, Muskrat

#### Origin

Musk rats are native to North America and occur from Alaska and Canada south to northern Mexico.

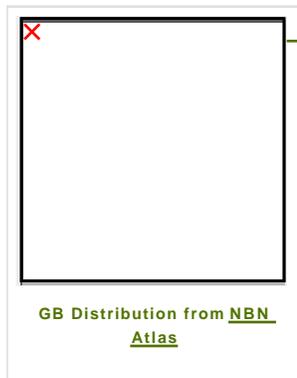
#### First Record

Musk rats were first brought to GB for fur farming in the 1920s, and escapes into the wild were being documented by 1929.

#### Pathway and Method

Musk rats were imported to be kept for their fur. By 1931, however, escapes or releases were known to have occurred from 14 of at least 87 fur farms set up in England during the 1920s, with similar escapes in Scotland.

### Distribution map



#### Author's name:

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#### Last updated:

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### Species Status

Fur farms across Eurasia also gave rise to introduced populations, which today extend from France to northern China and Kamchatka. Further non-native populations occur in South America. The species is widely regarded as a pest. An incipient Irish population was successfully extirpated by 1937.

## Ecology & Habitat: *Ondatra zibethicus*, Muskrat

### Dispersal Mechanisms

Muskrats introduced from Ontario to Shropshire escaped in 1930 and by late the following year had spread along 30 km of the River Severn and subsequently along 60 km.

### Reproduction

Nest chambers are built in 'lodges', tall heaps made of marsh vegetation at or near water level, or in burrows with underwater entrances, according to local conditions. In England, breeding occurred during March to early August, with two or possibly three litters a year.

### Known Predators/Herbivores

None known in GB. Elsewhere, they sometimes fall prey to foxes, mink and other carnivores.

### Resistant Stages

Muskrats become rather inactive in icy conditions.

### Habitat Occupied in GB

Introduced populations in GB inhabited river systems and associated marshland.

## Distribution: *Ondatra zibethicus*, Muskrat

Prior to eradication there were major population centres in the Forth Basin in Scotland, on the Severn in Shropshire, and in Surrey and Sussex.

## Impacts: *Ondatra zibethicus*, Muskrat

### Environmental Impact

Grazing in waterways and on marshland can severely damage or destroy areas of emergent or marsh vegetation, removing important habitats for native animals.

### Health and Social Impact

Muskrats can be vectors of leptospirosis, which can be transferred to humans as Weil's disease.

### Economic Impact

Burrowing by muskrats undermines river banks and flood defences, damages irrigation systems, and can cause serious flooding. In the few years that they were resident, muskrats caused extensive damage to the banks of the River Severn.

## References & Links: *Ondatra zibethicus*, Muskrat

### Identification

#### Biology, ecology, spread, vectors

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#### Management and impact

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#### General

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