

Update: Quagga mussel in UK

Briefing note 2

22 October 2014

Introduction

On the 7 October we reported the first record of the quagga mussel in the Wraysbury Reservoir and the Wraysbury River near Staines (Briefing note 1.1). Further investigations have confirmed that the mussel is also present at the following locations: The Queen Mother Reservoir, Queen Elizabeth II / Bessborough Reservoirs and the Queen Mary Reservoir, all to the west of London; and Warwick East Reservoir, Warwick West Reservoir and William Girling Reservoir, all located in the Lee Valley to the North of London. We will continue to investigate other high risk locations and will update the distribution map periodically as we make new discoveries.

The quagga mussel (*Dreissena rostriformis bugensis*) is a highly invasive non-native species the arrival of which in the UK has been expected for a number of years. Like the now widespread zebra mussel, this species comes from the Ponto-Caspian region (an area around the Black and Caspian seas).

Due to its filtering capacity and ability to produce dense populations, it can significantly reduce native biodiversity, and alter whole freshwater ecosystems. It is expected to occupy similar habitats to the zebra mussel, but can survive in some places that zebra mussel can't and can even displace them. It feeds on the varieties of algae that compete with blue-green algae, often resulting in toxic algal blooms. It is also a nuisance and economic problem when growing in pipes of water treatment plants or commercial ships.

What is being done?

There is no effective control or eradication method for quagga mussel once it has established in a reservoir and the downstream river system. As recommended in a recent review of options to deal with the arrival of quagga mussel commissioned by Defra, **the best method of slowing the spread of the quagga mussel is by applying better biosecurity through the [Check, Clean, Dry](#) approach**. We are urging all water users to follow this approach.

We have contacted relevant stakeholders to make them aware of the new arrival and our response to it, and will continue extra monitoring to investigate the extent of the population. We are identifying those waters that should be sampled by assessing the potential pathways for the spread of Quagga mussels into other waters.

We are working with Thames Water to promote the application of "Check, Clean, Dry" to activities at their reservoirs. We have produced a distribution map (below) to help people identify water bodies that are known to contain quagga mussels (while reminding people that good biosecurity should be applied everywhere).

Biosecurity

The larvae of quagga mussel (veligers) are not visible to the naked eye which makes drying a critical step in applying good biosecurity. There's good evidence that rinsing or soaking in hot water improves the chances of killing larvae and adults, and is a suggested addition to the Check, Clean, Dry approach.

Check, Clean, Dry is important not only to help slow the spread of this species, but also other invasive species that might be present in our waterways. It is especially important to prevent the spread of invasive non-native species to isolated locations (not connected to other water bodies) and protected areas such as Sites of Special Scientific Interest. Any structures or equipment such as jetties or boats which have been submerged in water for a time, pose a higher risk of spreading invasive species and these must be thoroughly defouled, cleaned (preferably with a hot water pressure washer) and dried before reuse, in accordance with the guidance for the biosecurity of submerged structures on the [non-native species secretariat website](#). This site also provides guidance for anglers and watercraft users. .

Identifying the quagga mussel

Quagga mussels can be hard to distinguish from zebra mussels, which are widespread in England and Wales. Quagga mussels are able to colonise freshwater rivers, canals and lakes. They are small in size (similar to zebra mussel) but lack the strong ridge that gives zebra mussel its 'D' shape. Quagga mussel is more rounded and so when placed on its front it will roll to one side, unlike the zebra mussel. More information on the quagga mussel and its identification is available from the [species alert](#) pages of the Non-native Species Secretariat.

If you spot a Quagga Mussel, you must report it:

Send a photograph along with details of the record to: email: alertnonnative@ceh.ac.uk or go to: [non-native species alert](#)

Remember: Quagga mussels are hard to distinguish from the more common zebra mussel. Ensure your specimen has some of the key features of quagga before sending in your record.

Distribution Map

Known distribution of quagga mussel (and nearby zebra mussel).



Distribution of Dreissenid mussels 22 October 2014

- Quagga mussel



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