

ALERT

The quagga mussel *Dreissena rostriformis bugensis* invades the Shannon

1. The quagga mussel has been found in the Shannon's two great lakes the Ree and Derg, and is currently abundant in Lough Ree over a wide range of depths. They are also present in the Shannon river between these lakes.
2. The quagga mussel has been predicted in a recent study as being a high impacting species of concern expected to arrive having environmental and economic consequences.
3. The quagga mussel has spread from its native region in Ukraine during the last few decades through Western Europe and to North America and Mexico. It was first recorded in Britain in 2014.
4. The species looks very like the zebra mussel that arrived in Ireland in 1994 colonizing many lakes with consequences of pipe blockages, hull fouling and high densities on the bottom of lakes and rivers with ecological consequences.
5. The quagga mussel, like the zebra mussel, behaves in a similar way and is also a filter feeder removing planktonic organisms from the water column. It has a high filtration rate likely to result in further changes to water quality and nutrient dynamics of, in particular, lakes.
6. The quagga mussel is likely to compete with the zebra mussel and native species. Having a wide ecological tolerance and suited to Irish climatic conditions it is expected to become widely distributed in time. It appears to have a preference for cooler water and can settle on finer sediments than the zebra mussel explaining its greater abundance at depth in some colonized lakes elsewhere.
7. The quagga mussel is likely to be spread by boats to the upper Shannon, and through the Shannon-Erne Waterway to the Erne. It is also likely to be spread overland by trailered craft. Owners of boats should be made aware they could spread this species from the Shannon.
8. The presence of the quagga mussel is likely to lead to a further surge in fouling and may have additional impacts on water quality and the ecological integrity of Irish aquatic ecosystems. The species has been under a rapid assessment field study managed by the Invasive Ecology (InEco) laboratory, School of Biology and Environmental Science, UCD.

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