

Zebra Mussel

Scan for more information



Species Description

Scientific name: *Dreissena polymorpha*

AKA: *Dreissensia polymorpha*

Native to: South-east Russia

Habitat: Slow rivers, canals, docks, lakes, reservoirs and sometimes water pipes and cooling systems.

The zebra mussel has a distinctive stripy shell and individuals are small, growing up to 3-4 cm in length. Unlike other freshwater mussels, the zebra mussel attaches to hard surfaces using byssal threads. Zebra mussels typically live for two to three years. They will settle on a wide range of surfaces including rocks, anchors, boat hulls, intake pipes, unionid mussels and plants.

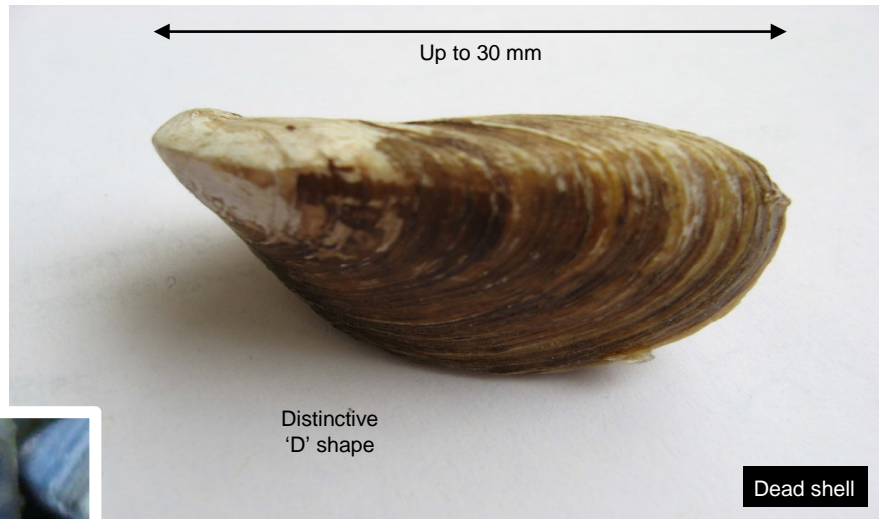
Originally from the Caspian and Black Sea region but has become invasive throughout Europe since the late 1700's after the construction of an extensive canal network. The zebra mussel probably arrived in Ireland in 1994 attached to the hulls of second-hand boats imported from Britain or the Netherlands.

Impacts include; changes in nutrient cycles, reduction of phytoplankton, increased water clarity, increased plant growth around lake margins, reduced zooplankton, population declines of native mussels as zebra mussel colonise their shells, changes in fish populations, blocks water intake pipes, attaches to the hulls of boats and block boat engines.

***Dreissensia polymorpha* is listed under Schedule 9 of The Wildlife (Northern Ireland) Order 1985 and as such, it is an offence to release or allow this species to escape into the wild.**



Key ID Features



Live mussel



Light and dark bands of colour

Report any sightings via; CEDaR Online Recording - <https://www2.habitas.org.uk/records/ISI>, iRecord app or Invasive Species Ireland website - <http://invasivespeciesireland.com/report-sighting>

Identification throughout the year

Zebra mussels do not vary in their appearance throughout the year.

Field signs

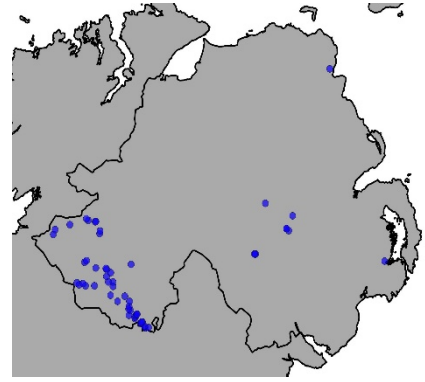
Zebra mussels do not leave any field signs except their dead shells which are identified in the same way as live shells. These shells may be covering hard objects. Dead shells can be found on the bed of water bodies or washed up on the margins, sometimes as single shells but occasionally, as in life, with two shells joined. Even when dead, the shells retain their stripy appearance. The zebra mussel has a short-lived, free-living larval stage but it cannot easily be detected in the water and so only adult mussels can be used for identification.

Similar Species

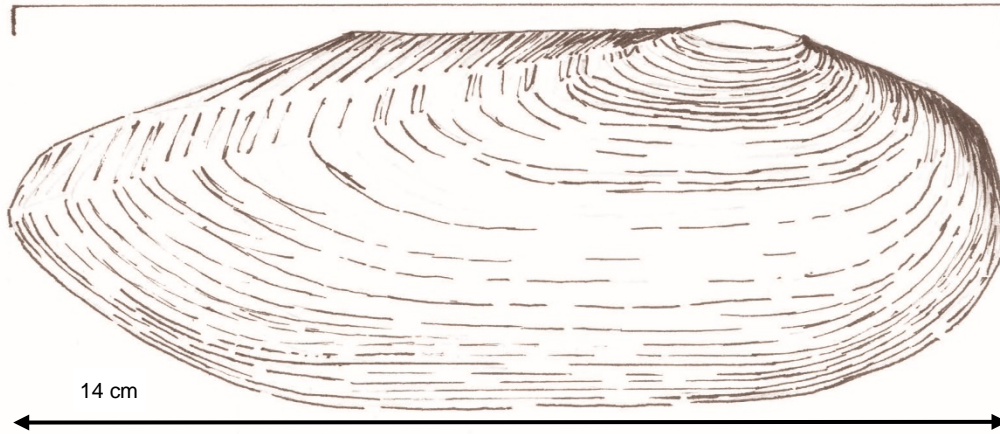
Compared to zebra mussel, other freshwater species of mussel are not found fixed to surfaces and do not grow in colonies but are free-living in the sediment. The smaller species are found amongst water plants. The larger mussel species, e.g. swan, painter's, duck and pearl mussels could only be confused with zebra mussels as juveniles but shells are much thinner and lack the zebra-like stripes. Orb cockles (*Sphaerium* species) and pea cockles (*Pisidium* species) are much smaller than zebra mussels and are unlikely to be confused.

Distribution

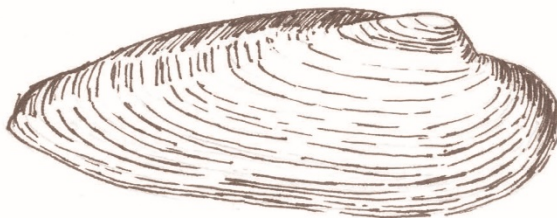
Present in Lough Erne and Lough Neagh.



Source: NBN Atlas Northern Ireland – available at <https://northernireland-species.nbnattas.org/species/NBNSYS0000006809>
Check website for current distribution



Swan Mussel
Native
(*Anodonta cygnea*)



Painter Mussel
Native
(*Unio pictorum*)



Zebra Mussel
Non-native
(*Dreissena polymorpha*)
For comparison

Orb Cockle
Native
(*Sphaerium* sp)



1.5 – 7 mm



Pea Cockle
Native
(*Pisidium* sp)

References and further reading:

Gilbey, V, Attrill, MJ and Coleman, RA (2008) Juvenile Chinese mitten crabs (*Eriocheir sinensis*) in the Thames estuary: distribution, movement and possible inter- actions with the native crab *Carcinus maenas*. *Biological Invasions* 10 pp. 67-77
Photos from: Philip Ames, Olaf Booy, Andrew DeWolfe

Sustainability at the heart of a living, working, active landscape valued by everyone.

Adapted for Northern Ireland
Environment Agency 2020