



***Dreissena* spp.**

Diagnostic features

Shells equivalve, mytiliform, inflated, sunken elongate internal ligament.



Dreissena polymorpha (length up to about 50 mm)

There is a distinct septum behind umbos. Periostracum present. Edentate hinge without teeth. Pallial line not sinuate. Anatomy: eulamellibranch gills, closed mantle with two well developed short siphons. Very small foot with a byssal apparatus (Huber 2010).

Classification

Dreissena van Beneden, 1835

Class Bivalvia

Infraclass Heteroconchia

Cohort Heterodonta

Megaorder Neoheterodonte

Order Myida

Superfamily Dreissenoidea

Family Dreissenidae

Genus *Dreissena* van Beneden, 1835 (Type species: *Mytilus polymorphus* Pallas, 1771) (Synonyms - see <http://www.marinespecies.org/aphia.php?p=taxdetails&id=181565>).

Original reference: Van Beneden, P. J. (1835). Histoire naturelle et anatomique du *Dreissena* [sic] *polymorpha*, genre nouveau dans la famille de mytilacées [sic]. *Bulletins de L'Academie Royale des Sciences et Belles-lettres de Bruxelles* 2: 25-26

Type locality: Tributary of the Ural River in the Caspian Sea Basin, Russia.

Biology and ecology

Epifaunal. Very adaptable and can tolerate a wide range of salinity and water conditions, ranging from fresh to brackish water. Dioecious with external fertilisation and planktotrophic larvae. Extremely fertile and fast growing and can reach huge population densities.

Distribution

Native to the lakes of southeast Russia, the Dnieper River drainage of Ukraine and the Black and Caspian Seas. It has also been introduced throughout Europe and North America, China and India.

Notes

Dreissena spp. do not occur in Australia but because it could be accidentally introduced, it is mentioned here as a potential threat.

Two members of this genus have become major pests in freshwater environments in North America and Europe by clogging water intake structures (e.g., pipes and screens). Recreational activities on lakes and rivers are also affected as mussels accumulate on docks, buoys, boat hulls, anchors, and beaches can become fouled by masses of empty shells. They can adversely affect native freshwater molluscs by attaching to their shells which affects their mobility, impedes their respiration, and compete with them for food.

Dreissena polymorpha (Pallas, 1771) (the zebra mussel) is shaped like many mytilid mussels but is not related to them. It is highly variable, and while young specimens have characteristic zig-zag markings these are often lacking in adult specimens. *Dreissena polymorpha* is similar in appearance to *Dreissena bugensis* but has a narrower and more elongated shell. *Dreissena polymorpha* has a flat or concave ventral margin with the ventral edge of the shell flattened with an acute angle on each side.

Dreissena bugensis (Andrusov, 1897) (the quagga mussel) is similar in appearance to *Dreissena polymorpha* but has a broader and less elongated shell, it is also paler in colour toward the hinge. *Dreissena bugensis* has a convex ventral margin and lacks the carina between the ventral and lateral shell surfaces resulting in a rounded cross-section.

Where *Dreissena bugensis* and *D. polymorpha* co-exist, the former appears to outcompete the latter, especially in cool water habitats.

Further reading

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https://keys.lucidcentral.org/keys/v3/freshwater_molluscs/

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