

# Quagga Mussel

Dreissena rostriformis bugensis

### **History**

- \* Native to Ukraine
- \* Initial introduction believed to be the result of ballast water discharge from transoceanic ships
- \* Since being first discovered in Great Lakes in 1988-89, the species has spread widely into freshwater habitats across North America
  - \* Slowly dominating over zebra mussel in US and Europe

## Characteristics

- \* Bi-valve up to 1.5 inches (4 cm)
- \* Shell usually has dark concentric rings; color is paler near the hinge
- \* When laid on edge, quagga shell topples over whereas the zebra shell is stable
- \* Valves (shell halves) are asymmetrical forming a curved line when valves are closed

#### Habitat

- \* Lakes, estuaries, streams
- \* Can colonize both hard and soft substrata
- \* Tolerate salinity to 6 ppt, temperatures to approximately 29 degrees C
- \* Quagga mussel can live at greater depths than zebra mussel

### **Known Distribution**

\* New York, Massachusetts, and the St. Lawrence River as far north as Quebec City

## **Impacts**

- \* Voracious filter feeders, removing microscopic plants and animals from the water, reducing food available to other aquatic animals
  - \* May cause declines in fish populations
- \* Clog intakes for power plants, industrial facilities, and public drinking water supplies
- \* Heavily colonize both hard and soft surfaces including beaches, boat hulls, docks, etc.
- \* High potential for rapid adaptation to extreme environmental conditions
  - \* Economic impacts in the billions of dollars



Quagga mussels Credit: J. E. Marsden



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