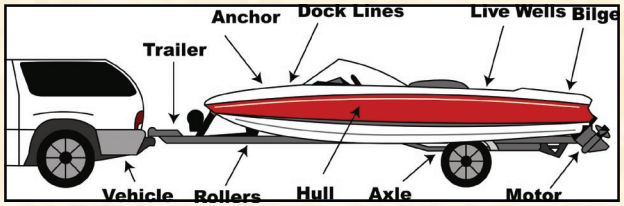
Before Launching...
Before Leaving...
Inspect Everything!



Don't Move A Mussel Follow These Simple Steps:

- **REMOVE** any visible mud, plants, fish or other animals before transporting equipment
- **ELIMINATE** all water from your boat and equipment before moving anywhere
- **CLEAN AND DRY** everything that came into contact with water (including boats, trailers, equipment, clothing, dogs, etc.)
- **NEVER** release plants, fish or other animals into a body of water unless they came from that same body of water

CAUTION

Federal law prohibits the transportation or importation of mussels and other injurious wildlife across state lines.
Violators face a penalty of up to $10,000 and six months in prison for each offense.

Quagga and zebra mussels are invasive freshwater mollusks (bivalves) that infest waters in large numbers, attaching to a variety of surfaces. These mussels are a nuisance for anglers and boaters. They clog water pipes and intake valves and cause drastic changes to the environments they invade.

Report any sightings of zebra or quagga mussels to the National Hotline:

1-877-STOP-ANS

1-877-786-7267

Photo Credits: Dave Britton, USFWS and USGS

U.S. Fish & Wildlife Service

Don't Move A Mussel!

STOP AQUATIC HITCHHIKERS!™

Prevent the transport of nuisance species.
Clean all recreational equipment.
www.ProtectYourWaters.net

Quagga and Zebra Mussel Damage is Expensive!

When quagga and zebra mussels invade local waters they clog power plant and public water intakes and pipes. They colonize pipes constricting flow and reducing the intake in heat exchangers, condensers, fire fighting equipment, and air conditioning and cooling systems.

Navigational and recreational boating can also be affected by increased drag due to attached mussels. Small mussels can get into engine cooling systems causing overheating and damage. Navigational buoys have sunk because of the weight of attached mussels. Fishing gear can be fouled if left in the water for long periods. Deterioration of dock pilings increases if encrusted with these mussels as well as corrosion of steel and concrete affecting structural integrity.

Damaging Ecosystems

Quagga and zebra mussels damage the ecosystems they invade. They feed by filtering water and removing large amounts of food, effectively starving native species in infested rivers and lakes. The waste they produce accumulates and degrades the environment, using up oxygen, making the water acidic and producing toxic byproducts. These pollutants can be passed up the food chain if the mussels are consumed.

Mussels On The Move

The primary way these invasive mussels spread is on boats and trailers or by commercial haulers. If your boat or personal watercraft has been in infested waters, it could be carrying quagga or zebra mussels. Their microscopic larvae (called veilgers) can also be unintentionally transported in water held in live wells, bilges, or bait buckets.

Since their introduction to the Great Lakes in 1986, the mussels have spread to rivers and lakes throughout the east. In January 2007, the quagga mussel was discovered in the Western United States and has now been confirmed in Nevada, Arizona and California.

Quick Facts

Quagga Mussels

- Usually the same size as a fingernail, but can grow up to approximately 2 inches long
- Common color patterns vary widely with black, cream, or white bands
- Habitat varies. They may inhabit a wide range of fresh water at depths up to 426 feet and colonizes both hard and soft surfaces
- Arrived in the U.S. from Ukraine in 1996

Zebra Mussels

- Usually the same size as a fingernail, but can grow up to 2 inches long
- Commonly have alternating dark and light stripes
- Inhabits fresh water at depths from 4 to 24 feet and prefers hard surfaces
- Arrived in the U.S. in 1986 from Europe

Quagga and Zebra Mussels

- Produce young that are too small to see with the naked eye, but newly settled young feel like fine sandpaper on smooth surfaces
- Over 40,000 eggs can be released in a reproductive cycle and up to one million in a spawning season.
- Attach to aquatic plants, boats, motors, trailers, and recreation equipment or can be present in water
- As they grow, they can be seen on boat hulls, especially around trim tabs, transducers, along keels, and on lower units and propellers
- Can be found in bilges, live wells and motors
- Can survive 3 to 5 days out of water, depending on temperature