



STOP AQUATIC HITCHHIKERS!

Prevent the Spread of Zebra Mussels

1. **Inspect and clean your boat** after removing it from the water and away from the launch ramp.
2. **Thoroughly inspect all exposed surfaces on your vessel and trailer.** If you find any mussels, scrape them off and kill them by crushing them. Dispose of the remains in the trash.
3. **Remove all plants and mud from your boat, trailer, and all equipment.** Dispose of all material in the trash.
4. **Empty and dry all buckets and dispose of all bait in trash receptacles before you leave.** Do not take bait home, or leave it on the ground or dump it in any waterway.
5. **Carefully feel your boat's hull for any rough or gritty spots,** which may be young mussels that have settled on your vessel and cannot be seen. Microscopic Quagga/Zebra mussels will feel like sandpaper.
6. **Away from the waterway, drain all water from your boat (pull all plugs) and dry all areas,** including the motor, motor cooling system, live wells, ballast tanks, bladders, bilges, and lower outboard units.
7. **Keep your watercraft dry** for at least 1 week (during hot, dry weather) and up to 4 weeks (during cool, wet weather) before launching into any freshwater lake or pond. Drying is the only way to prevent the spread of zebra mussels.
8. **Thoroughly clean** all fishing and recreational equipment (fishing nets, etc).

9.

Inspect, clean and dry all life jackets, water skis or other items that have been in the water, including anchors, ropes, etc.

10.

Clean and dry personal belongings, clothing, and footwear that have come in contact with the water.

11.

Wash, dry, and brush pets that have been in the water.

12.

Divers - thoroughly clean all regulators, BCDs, wetsuits, and any other dive gear, making sure to clean both the inside and outside of the BCD. Use a commercially available dive equipment cleaning compound that contains ammonia, vinegar, or chlorine. Allow gear, suit, and other equipment to dry before diving in different waters (weilers can survive on a wetsuit if left damp).

13.

If you can't keep your watercraft dry, wash your boat's hull, trailer, equipment, bilge, and any other exposed surfaces. **High-pressure, hot water** will help to reduce the spread. A **household bleach solution** (½ cup bleach per 2 cups water) must be used to prevent the spread.



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

To report a sighting or for more information:

MassDCR Lakes and Ponds Program
(617) 626-4975
www.mass.gov/lakesandponds



dcr Lakes and Ponds Program
Massachusetts



Stop the Spread of ZEBRA MUSSELS
Dreissena polymorpha
An Invasive Mussel

What are Zebra Mussels?

Massachusetts' lakes, ponds, and streams are a valuable resource for boating, swimming, fishing, and numerous other types of recreation. These water bodies also provide valuable habitat for a variety of wildlife, including a number of popular sport fish species. Unfortunately, the looming invasion of our waters by exotic mussels threatens to damage these resources.



Zebra Mussel/ Photo credit: USGS

The zebra mussel (*Dreissena polymorpha*) has extended its range in the Northeast in recent years and is now found as close as Twin Lakes in Salisbury, Connecticut, the Hudson River and Lake George in New York, and several lakes in Vermont, including Lake Champlain.



Photo Credit: USGS

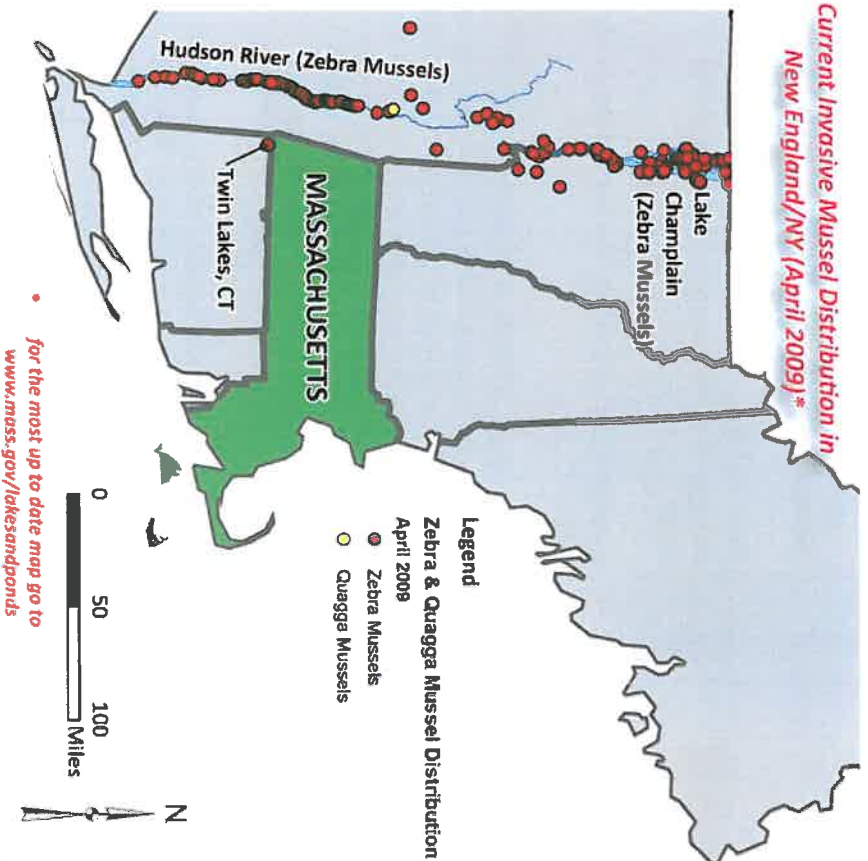
The similar but more aggressive quagga mussel (*D. bugensis*) is rapidly expanding its range and has been found as close as the Mohawk-Hudson River confluence.

Boaters should use extreme caution before launching their boats in Massachusetts waterbodies. If you have been boating in New York, Vermont, or Connecticut it is especially important that you thoroughly inspect and wash your boat and other equipment following the guidelines in this brochure.



Photo credit: Minnesota DNR

Current Invasive Mussel Distribution in New England/NY (April 2009)*



Why should you be concerned about Zebra Mussels?

Zebra and quagga mussels are some of the most ecologically and economically damaging aquatic organisms to invade the United States. Their destructive power lies in their sheer numbers and ability to attach to solid objects – water intake pipes, propellers, boat hulls, dock pilings, submerged rocks and even other aquatic animals.

- Native mussels, fish and wildlife are threatened. Zebra and quagga mussels consume available food and alter the ecology of infested waters. They are a direct threat to native mussels, accumulating on their shells in sufficient numbers to smother their hosts. In infested waters, they can wash up on beaches, covering them with thousands of broken sharp shells.
- Boat engines can be ruined by zebra and quagga mussels growing in the cooling system intakes and blocking water flow. They can also jam steering equipment.



Photo credit: Minnesota DNR



Photo credit: Michigan Sea Grant Archives



Ontario Ministry of Natural Resources



Photo credit: Michigan Sea Grant Archives