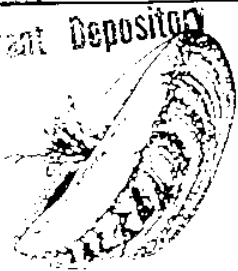


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# Zebra Mussel Update

The invasion of the Great Lakes by the zebra mussel has the potential to be a greater disaster, in human terms, than the invasions of the parasitic sea lamprey, alewife, and all the other exotic species in the lakes combined.

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ZEBRA MUSSELS HAVE BEEN FOUND IN THE ST. LOUIS RIVER, WHICH FLOWS INTO THE DULUTH-SUPERIOR HARBOR. MUSSEL LARVAE AND ADULTS CAN INFEST ENGINES AND COOLING SYSTEMS AND ATTACH TO BOAT HULLS. MUSSELS CAN DAMAGE YOUR BOAT AND HARM THE ENVIRONMENT. THEY ARE EASILY SPREAD TO OTHER LAKES AND WATERWAYS.

**Q. What is a zebra mussel?**

**A.** Zebra mussels resemble a freshwater barnacle. They look like a small clam with a yellowish or brownish shell marked with alternating zigzag or wavy bands of brown or yellow. Adult zebra mussels can be as large as 1-1/2 to 2 inches and live to five years of age. Their thread-like tentacles are used to attach themselves to boat hulls, reefs, navigational buoys, anchors, and other submerged solid objects.

**Q. Have they always been in the Great Lakes?**

**A.** The zebra mussel probably entered the lower Great Lakes in 1985 in ships' ballast water. By 1989, the zebra mussel had spread throughout Lake Erie. CONTINUED EXPANSION OF THE ZEBRA MUSSEL THROUGHOUT THE GREAT LAKES IS EXPECTED TO OCCUR BECAUSE IT INFESTS BOATS.

**Q. Do I have to take precautions only if I have been in areas of the Great Lakes where zebra mussels have been found?**

**A.** No. By 1990, zebra mussels may be encountered anywhere in the Great Lakes.

**Q. If I cannot see zebra mussels on my boat, do I still need to take precautions?**

**A.** Yes. From late spring through fall, zebra mussels can enter live wells and bilge wells of boats. They also attach to any surface, like your boat hull. Larval zebra mussels are extremely small and difficult to see. Larval zebra mussels quickly dry out and die out of water, but they can survive anywhere in the boat or trailer where water collects.

**Q. Can zebra mussels damage my boat?**

**A.** Yes. Zebra mussels can foul intakes, bilge pumps, and motors. This may cause extensive damage. Mussels will not damage boat hulls, but heavy encrustations will slow speed, impair handling, and reduce fuel economy.

**Q. If I boat on the Great Lakes or its harbors and do not intend to use my boat inland for awhile, do I still need to take precautions?**

**A.** Yes. Boaters should keep vessels free of zebra mussels throughout the year. Larval mussels can easily live for a month in trapped water in your boat.

**Q.** I have a small outboard motor on my boat. Do I need to be concerned?

**A.** Yes. Young mussels can easily enter the cooling water of any motor, attach to the inside, and then grow. This will result in blockages, decreased water flow, and overheating of your motor.

**Q.** Does the time of year I use my boat make a difference?

**A.** No. Zebra mussels are present year-round in the Great Lakes. The entire late spring to early fall boating season is of concern to all Great Lakes boaters.

**Q.** What should I do before I take my boat to an inland lake?

**A.** The hull should be thoroughly cleaned. If small zebra mussels are present, the hull should be scraped. If the boat is left out of the water 10 days or more, the mussels will die. All sources of trapped water (live wells, bilge areas, etc.) should be thoroughly dry.

**Q.** Should I check any other boating or fishing equipment, such as a minnow bucket, fishing tackle, anchor, PFDs, etc.?

**A.** Most equipment will not be affected unless it is left in the water where zebra mussels are

present. An anchor in the water could become infested in a short time. Minnow buckets could also contain larval zebra mussels if infested water is used or added to the buckets. In this case, they should be thoroughly dried.

**Q.** What type of antifoulant hull paint should I use and how often?

**A.** Because some paint compounds can pollute the water, follow state and federal guidelines if you use these.

**Q.** Does the length of time I use my boat in mussel-infested waters make a difference?

**A.** No. Larval mussels are present from June through October in the upper 20 feet of water. They can easily infest your boat at any time and can settle on the hull in a few minutes.

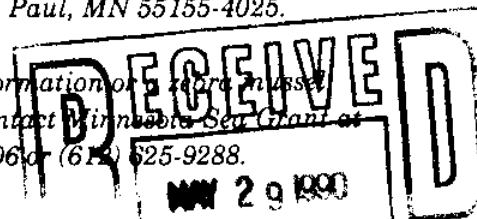
**Q.** Can zebra mussels winter over in boats in storage?

**A.** Probably not.

*The Minnesota DNR is asking people who find zebra mussels on their boats to pry them off and call the Ecological Services Section at (612) 297-4888 to report the date and specific location where the mussel was found.*

*To help scientists document the spread, place the mussel in a jar of rubbing alcohol and send it to the DNR Section of Ecological Services, 500 Lafayette Road, St. Paul, MN 55155-4025.*

*For more information on zebra mussels, fact sheet, contact Minnesota Sea Grant at (218) 726-8106 or (612) 625-9288.*



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