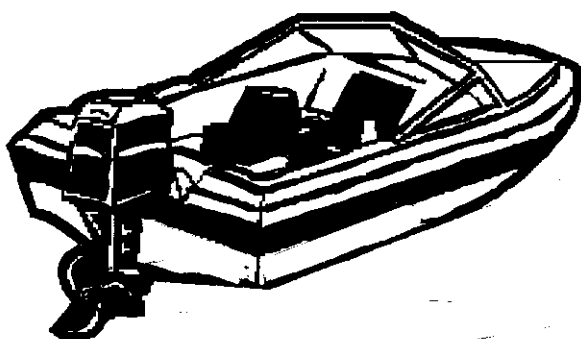


# Could Your Boat and Motor be in Trouble?

# Maybe!

There is a new threat  
to boaters in Florida



## Could your boat & motor be in trouble?

The answer is yes, if the zebra mussel invades Florida. Zebra mussels can do damage to your hull, outdrive, propeller, propeller shaft and rudder. They can plug the cooling system causing overheating and possible engine failure.

Why hasn't anyone here worried about it until now? Well, we're in luck in Florida; they aren't here – yet. Read on to see how you can help prevent the spread of zebra mussels into Florida, and save yourself and all other boaters time and money.

### Where are they?

The zebra mussel was first discovered in the U.S. in Lake St. Clair, near Detroit in 1988. A freighter flushing ballast water that was picked up in Europe, where zebra mussels are native or naturalized, likely released them. They have spread down the Mississippi as far as New Orleans. They are now in isolated lakes and quarries where only trailer boating or SCUBA diving activities take place.

### How do they spread?

They are the only freshwater mollusk that attaches itself to solid objects. The adults can be moved while attached to boat hulls, trailers, or outboard motors and outdrives, as well as on vegetation hanging on the boat or trailer.

At the larval stage, zebra mussels are called veligers. A veliger is about the size of the period at the end of this sentence. They survive very well in most any wet condition. Bait buckets, live wells, bilges, and cooling system piping are all potential sources for moving veligers from one body of water to another. When veligers first attach themselves to a solid object, they may feel as if you were running your finger over dull sandpaper. Remember, zebra mussels easily attach themselves to most surfaces and can easily be transported to non-infested waters.

## So, what can you do?

First, develop a positive attitude about stopping this threat. With some effort by boaters, we may be able to prevent zebra mussels from being spread into Florida. Here are some steps you should take if you trailer your boat from one fresh water body to another:

1. Remove vegetation from your boat, propeller, rudder, and trailer after you haul your boat out.
2. Flush the engine cooling system, live wells, and bilge. Hot water works best, but any flushing is better than not flushing.
3. Let the boat, bilge, live well, or other wet surfaces dry for a minimum of two days; five days is safer.
4. Do not re-use bait if it's been in water that may have zebra mussels in it.
5. Inspect your boat and gear periodically. If the boat has been moored or docked in zebra mussel infected water, it may easily carry veligers or adults to the next body of water you use.

You can protect your hull and underwater accessories by the use of antifouling paint. There are several options available. Copper-based paints are the most commonly used. 'Leaching' or tapered release and 'Ablative' or controlled release are the two basic types. There are water based and solvent-thinned copper paints. Some are known as copolymers, and there are a variety of other finish and application-based names associated with marine paints. These all go by different trade names, so read the label carefully, or ask a paint specialist for advice. In Florida, tin based paints (TBT) are restricted to large (82-foot or larger) boats built of any material or any aluminum boat. Any TBT hull paint must be applied by a person specially trained and licensed to apply pesticides on boats. Small aerosol cans of TBT paint are exempt from the requirement for licensing, and may be used on aluminum outdrives and lower units or outboard engines.

## Divers

SCUBA and snorkeling gear can become a way for zebra mussel veligers to move from one body of water to another. Quarries without boat access have been found to have zebra mussels, probably introduced by dive gear that was not rinsed or dried between uses. You would likely notice an adult zebra mussel attached to your dive gear, but the veligers are not visible to the naked eye, and can easily survive for days in wet gear. Rinse and dry wetsuits and all other dive gear between use if you have been diving in areas where the zebra mussel may have already invaded.

### Remember –

- ⊗ it takes a very small amount of water to move zebra mussels from one body of freshwater to another.
- ⊗ one female adult can produce several hundred thousand eggs a year.
- ⊗ the veligers survive for long periods of time unless they are flushed out and the area is allowed to dry for several days.
- ⊗ with a little effort, we can slow down the spread of this very expensive introduced pest.



Zebra mussel adults are a small, 1 to 2-inches freshwater barnacle-like bivalve. They look like a small clam with a yellowish and/or brownish “D” shaped shell, usually alternating dark and light bands of color.

For more information, call:  
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