

## ZEBRA MUSSELS

These tiny mussels were first discovered in North America in Lake Erie in 1988, most likely introduced through the discharge of ballast water from a European vessel. By 1995 the mussels had spread to all of the Great Lakes and are continuing to move inland. The dreaded zebra mussel was first noticed, in Otter Lake in 2002, when people started taking their docks out of the lake in the fall. Over the course of the summer, people all around the lake were seeing them on rocks, dock legs and on water intake hoses in ever increasing numbers. This is only the beginning it will get worse, a single zebra mussel female can produce in excess of 30,000 eggs, and the generations mature rapidly, making it difficult and costly to control them. Colonies can have from 70,000 zebra mussels per square yard, such as in portions of Lake Erie, to an incredible 700,000 mussels per square yard that have been found inside some utility water intake pipes. The zebra mussels pose several problems for cottagers, they attach to literally everything in the water, docks, boat hulls, huge deposits of dead mussels can wash up on our shore line causing foul odors and cutting bathers feet with their sharp shells. They can also cause expensive problems as well; they can plug water intake ports causing outboard motors to overheat. If you draw water out of the lake they can get into your water system causing a foul taste as well as odor, and given the right conditions plug your intake line completely causing expensive repairs and or pump replacement (see picture).



At this point in time I don't know what you need to do to protect your outboard motor, I would suggest talking to a local marina to see what they suggest. I can tell you I have talked to several companies that offer solutions to protecting your water supply, and most of them suggest the ZEBRA 40. The ZEBRA 40 which is the most popular, is ideal for all pumps up to ½ hp and will give you a potential flow capacity of 40 GPM. It is cleanable and its low profile makes it well suited to shallow water applications. The key to the whole zebra mussel filter issue is the veligers (larvae) are 40 microns in size and can be easily sucked through a 30 micron space, the Zebra 40 is a 25 micron absolute filter. We have checked with several different locations that sell the Zebra 40 system, they all charge the same amount, \$250 plus GST & PST. You can also get an optional "Quick Connect" kit, which I believe was \$38 - \$40, this allows you to take off your filter and clean it periodically without losing your prime. We have one dealer that is prepared to give us a price break, the discount will be based on the number of interested residents. We have already had several neighbors commit to buying the Zebra 40 this winter, and installing them in the spring, if you are interested in getting a Zebra 40 filter or one of the larger models contact Ken Maxwell at: [ken@easternontariodocksandmarine.com](mailto:ken@easternontariodocksandmarine.com).

Ken Maxwell

## ZEBRA MUSSEL UPDATE - SPRING 2002

In the summer of 2001, Otter lake was tested for the presence of zebra mussels. The testing took place on July 18th, with samples being collected from three different locations and depths. The first sample was collected at the entrance to the bay where the boat launch is located, another towards the north end of the lake and the third in the deepest part of the center of the lake. Results were returned to us late this fall, showing evidence of zebra mussel veligers in Otter Lake. Veligers are the infant stage of the zebra mussel.

Certain biological and physiochemical conditions must exist in order for a zebra mussel population to become successfully established in a new water body. In general, a population will survive as long as there are:

- Hard substrates for the mussels to settle on, or aquatic vegetation to which to attach;
- Appropriate water temperature, water velocity, pH and calcium levels, and
- Adequate supply of food resources.

Zebra mussels are filter feeders. They remove tiny plant and animal life from our lakes which increases water clarity, alters water quality to the detriment of light-sensitive fish and affects the amounts of food available for other aquatic organisms. If zebra mussels colonize spawning shoals, they can potentially affect spawning habitat for fish as well. Zebra mussels can also cause expensive problems for recreational water users and waterfront residents by attaching to boat hulls, motor intakes, water pipes and docks. They can foul beaches with an unpleasant odor and their sharp shells can cut the feet of swimmers. It will take two years or more before adult mussels become noticeable. As a resident of the lake you can monitor the extent and spread of zebra mussel populations by suspending a rope from your dock and checking it periodically. You can use a white or yellow rope and weight it so the rope does not float on the surface. Check the rope every other week with a magnifying glass. When they first attach, young zebra mussels look and feel like sand particles. However, before long they take on the typical shape and striped colouration of the mussels.

Information from the Invading Species Watch Program and Action Plan has been used in writing this report. A useful site for more information is:- <http://www.ncf.carleton.ca/boating/zebra.html>.

Wendy Mayhew