



WHITE LAKE Property Owners Association
Environment Volunteers



ENVIRONMENT BULLETIN

David Overholt and Conrad Grégoire

NICE LAKE! MIND IF WE MUSSEL IN?

White Lake is the home for some very unwelcome guests. Since 2015 White Lake has been afflicted with millions of zebra mussels. Their great numbers have brought changes to White Lake. Some of these changes are obvious but others are more subtle.

This is what we have seen to date:

1. *Clear lake water promoting dense and deeper aquatic plant growth.*
2. *Threats of extinction for White Lake native clam species.*
3. *Increase in bottom growing filamentous algae.*
4. *Increase in potentially toxic blue green algae in the water column.*
5. *A change in the occurrence of some plankton species.*
6. *A cycle of die-off and recovery in the zebra mussel population.*

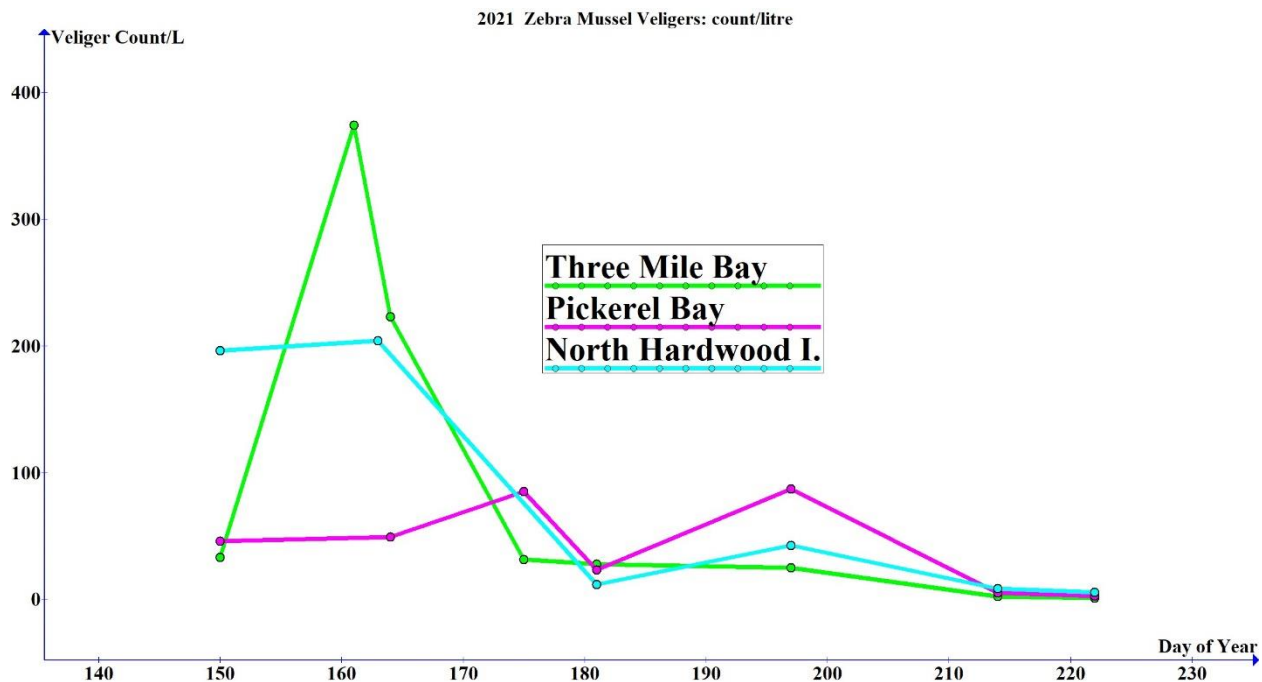
We have been monitoring zebra mussels for the last seven years. During that time zebra mussels have died off in large numbers as their first-generation approached its past-due date. Zebra mussels live for three to five years. The large die-off we observed in 2019 gave some hope that these invasive characters were willing to behave themselves. In 2019 they occurred in fewer numbers and were composed mostly of immature individuals averaging 4mm in shell length.

Last year (2021) the zebra mussel population returned with a vengeance. Mussels were produced that in their first year of growth achieved adult size and occurred in large numbers similar to their 2016 predecessors.

One might think that zebra mussels spread by attaching to surfaces such as boat hulls and boat trailers. This does happen but this is only one part of the story.

A major contribution is the spread of microscopic free-swimming larvae and early stage pediveligers (larvae with a foot). Pediveligers begin to grow a foot used to attach to a hard surface while they are still in a free-swimming state. In 2021 we sampled for these larvae expecting them to be present periodically, perhaps occurring only once or twice during

the summer. We discovered zebra mussel larvae present in all of our samples and at all sampling sites from May 31st to August 10th. There were also major 'peaks' in their numbers on June 13th and June 30th.



WHAT CAN WE DO?

It is impossible to do anything about zebra mussels in our lake. But there is one thing we should do. We should institute a clean boat policy. Boat owners need to clean their boats before they leave our lake. This will ensure we do not spread this destructive invasive species to other lakes. If you have family and friends that bring their watercraft to White Lake, please take the simple precaution of cleaning these boats by removing any traces of aquatic plants and rinsing with uncontaminated water before taking it elsewhere.

Clean boat information is available from Ontario's Invasive Species Awareness program: [Zebra and Quagga Mussels | Ontario's Invading Species Awareness Program](#)

You can also read our full 2021 [Zebra Mussel Report](#) which tracks zebra mussel populations from 2016 to 2021. This and other reports along with a wealth of knowledge can be found on the [White Lake Science and Information Website](#).

August 24, 2022