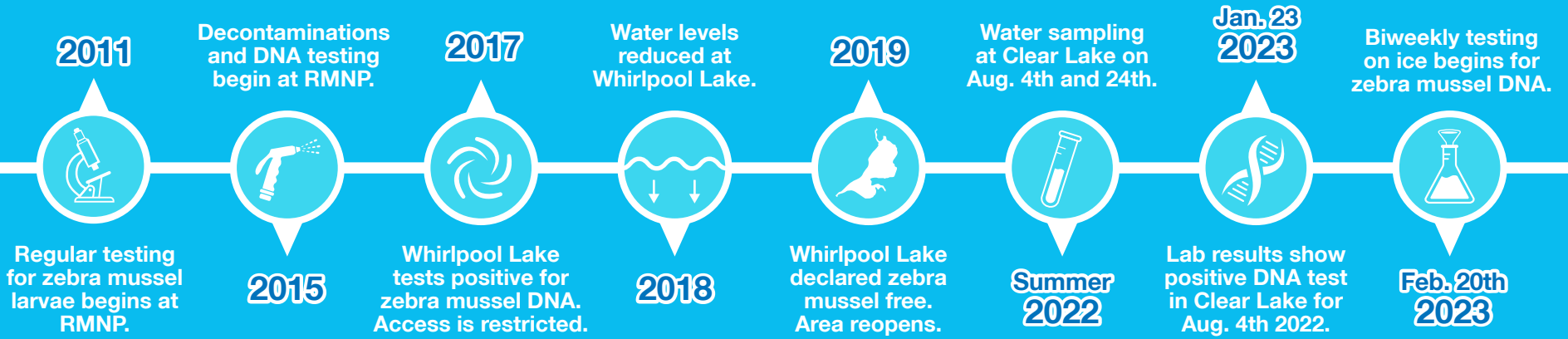


# Zebra Mussel eDNA



at Riding Mountain National Park

## Timeline of Zebra Mussels in Manitoba



## Future Steps and Testing



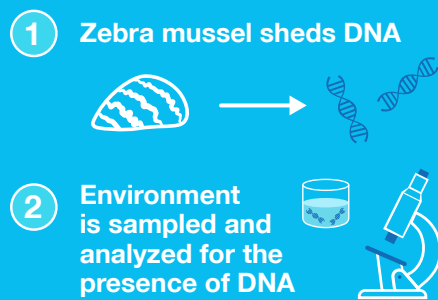
Only **1 out of 3** samples from the Aug. 4th testing at Clear Lake's Boat Cove returned positive results. Three samples taken on **Aug. 24th** in the same area tested **negative** for zebra mussel DNA. Finding eDNA is a signal that tells us we need to look closer. RMNP staff are working with First Nations and other levels of government to implement a monitoring program over the winter months. They will be attempting to determine whether this DNA was transported by watercraft, or a living or dead organism within the waterbody.

## The Road Ahead

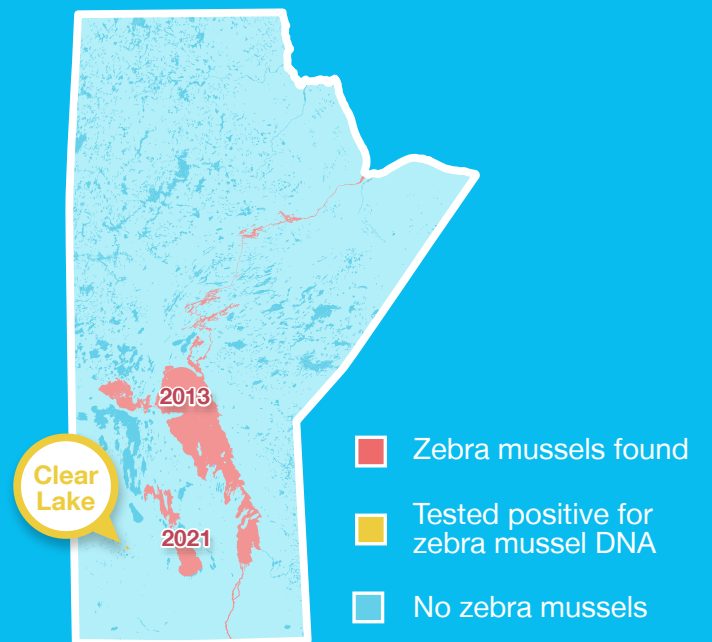


## What is eDNA?

**Environmental DNA (eDNA)** are tiny fragments of genetic material that are found in the environment. It can come from living or dead organisms, or be transferred by boats, water toys, or other objects. Zebra mussel DNA cannot become an adult zebra mussel.



## Distribution in Manitoba



## Why is it a concern in Clear Lake?

eDNA can be an early warning flag that zebra mussels **MAY** be present, but it does **NOT** confirm a viable population. It may take up to **4 years** to confirm whether zebra mussels have started to colonize Clear Lake. If zebra mussels become established in Clear Lake, they will affect the health of the lake and connected waterways.



## How is DNA Spread in the Environment?

DNA can be shed from a living or dead organism within the waterbody or be transported by watercraft, toys or other objects.



Boat and water toys are used in waterbody with zebra mussels. Upon exiting, they should be **Cleaned, Drained, and Dried**.

Items are decontaminated. There are no zebra mussels, but DNA remains.

Boat and water toys enter waterbody that does not have zebra mussels.

DNA is left behind in the new waterbody.

\*Coalition - Coalition of First Nations with Interests in Riding Mountain National Park



Riding Mountain National Park

Parc national du Mont-Riding



Parks Canada

Parcs Canada

Canada