

Michigan DNR- Parks and Recreation Division



AQUATIC INVASIVE SPECIES SAMPLING

In July 2019, the DNR-PRD sampled 157 state-owned boating access sites throughout Michigan for 10 aquatic invasive species (AIS):

- Eurasian watermilfoil
- Curly-leaf pondweed
- Starry stonewort
- Hydrilla
- Parrot feather
- European frog-bit
- Phragmites
- Flowering rush
- Narrowleaf cattail
- Zebra/quagga mussels

Data was also collected about the number of boat lanes and docks at each site, the presence of AIS signage, how close to the water's edge the lawn was mowed, the type of substrate (lake bottom), and estimated abundance of native aquatic vegetation.

The results from this project will guide future decisions about the management of boating access sites, which the DNR is legally responsible to provide for Michigan's citizens.

Boating access sites were chosen randomly from a DNR database and included 118 sites in the Lower Peninsula and 39 in the Upper Peninsula.



WHY SAMPLE BOATING ACCESS SITES?

Boating is one of the pathways which spread AIS. This study was designed to examine the presence of AIS within and near the launch lanes of public boating access sites.

Invasive aquatic plants collect on boat motors and trailers as boaters launch or retrieve watercraft. If not cleaned properly, these organisms could be transported to another lake. The species chosen for the survey were a mixture of AIS that are not yet in Michigan, present but only in localized areas, or widespread throughout the state. 45% of the sites surveyed in this study did not have any of the target AIS along the shoreline or in the water.



RESULTS FROM THE SAMPLING PROJECT

The data gained through this project provided a quick snapshot of what's happening at access sites.

This was the first DNR project to study the presence of AIS at public boating access sites on inland lakes. Partners included DNR-Fisheries Division and Michigan State University Extension. Emergent AIS plants were looked for along the shoreline and rake tosses were used to sample submerged plants using established methods. Two crews sampled the sites in July when AIS were most detectable.

In general, the boating access sites that were sampled showed a mixture of native and invasive plants. Within the launch lanes proper, 78% of the sites did not have any aquatic plants growing or the vegetation was sparse. European frog-bit, curly-leaf pondweed, and starry stonewort were only found in the Lower Peninsula. Parrot feather and hydrilla were not found at any site. **This reinforces the fact that AIS, while widespread, are not everywhere.**

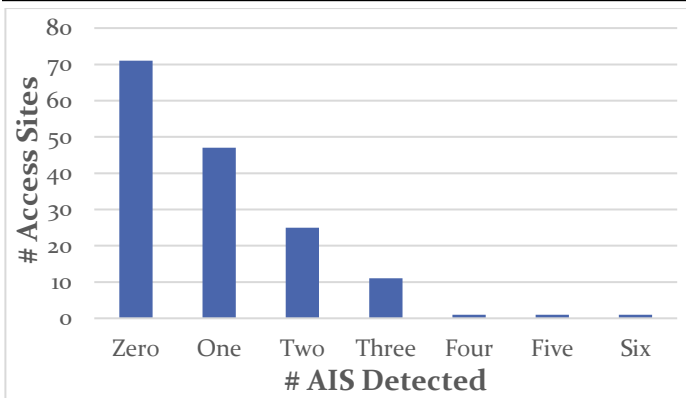
To protect inland lakes from AIS, boaters must

- ✓ Clean
- ✓ Drain
- ✓ Dry

their boats and trailers.

It is the LAW.

The graph on the left shows the number of AIS found at the access sites. The table on the right shows the presence data for each of the eight species that were found throughout Michigan. At every site sampled, native plants were also found.



SPECIES	# SITES DETECTED	% SITES DETECTED
Eurasian watermilfoil	54	34.4
Curly-leaf pondweed	27	17.2
Starry stonewort	30	19.1
European frog-bit	1	0.6
Phragmites	8	5.1
Flowering rush	4	2.5
Narrowleaf cattail	21	13.4
Zebra/quagga mussels	28	17.8

FUTURE ACTIONS

Activities being taken as a result of this project:

- Increased and updated AIS signage at sites
- Expanded collaboration with boat wash crews
- Analyses with other datasets to inform AIS presence in Michigan
- Additional surveys



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