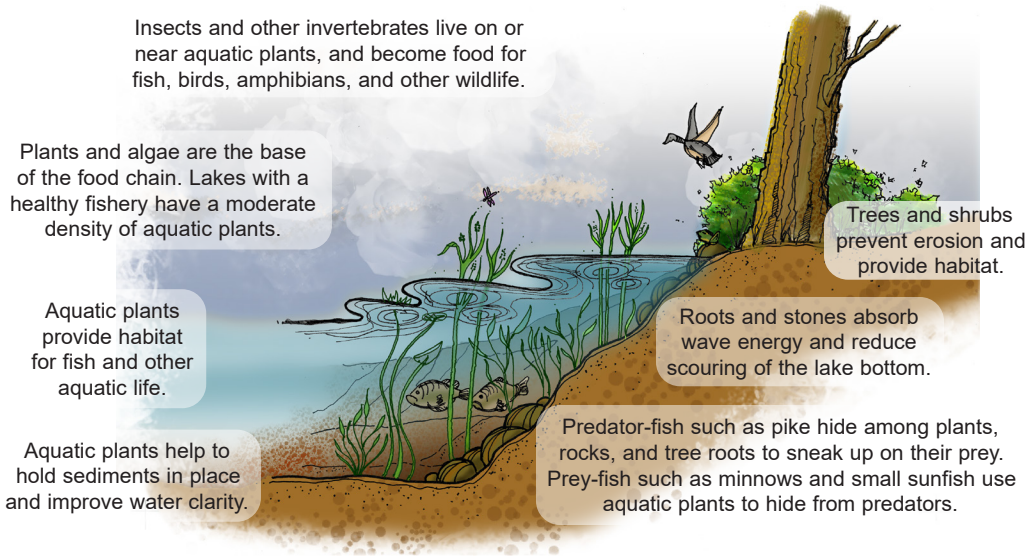
Hess Lake
Aquatic Plant Control Program
2023 Activity Summary

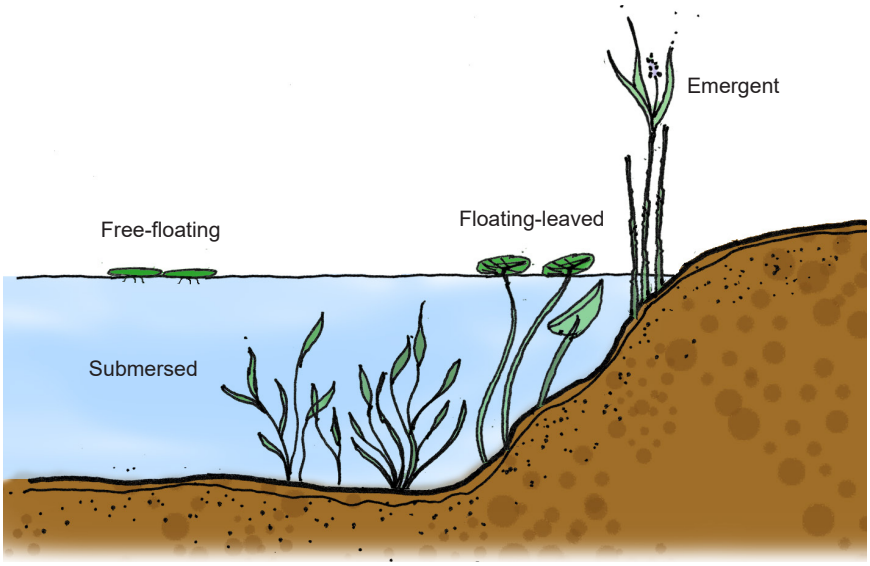
A publication of the Hess Lake Improvement Board

For the past several years, a nuisance plant control program has been ongoing on Hess Lake. The primary objective of the program is to prevent the spread of invasive aquatic plants while preserving beneficial plant species. This report contains an overview of plant control activities conducted on Hess Lake in 2023.

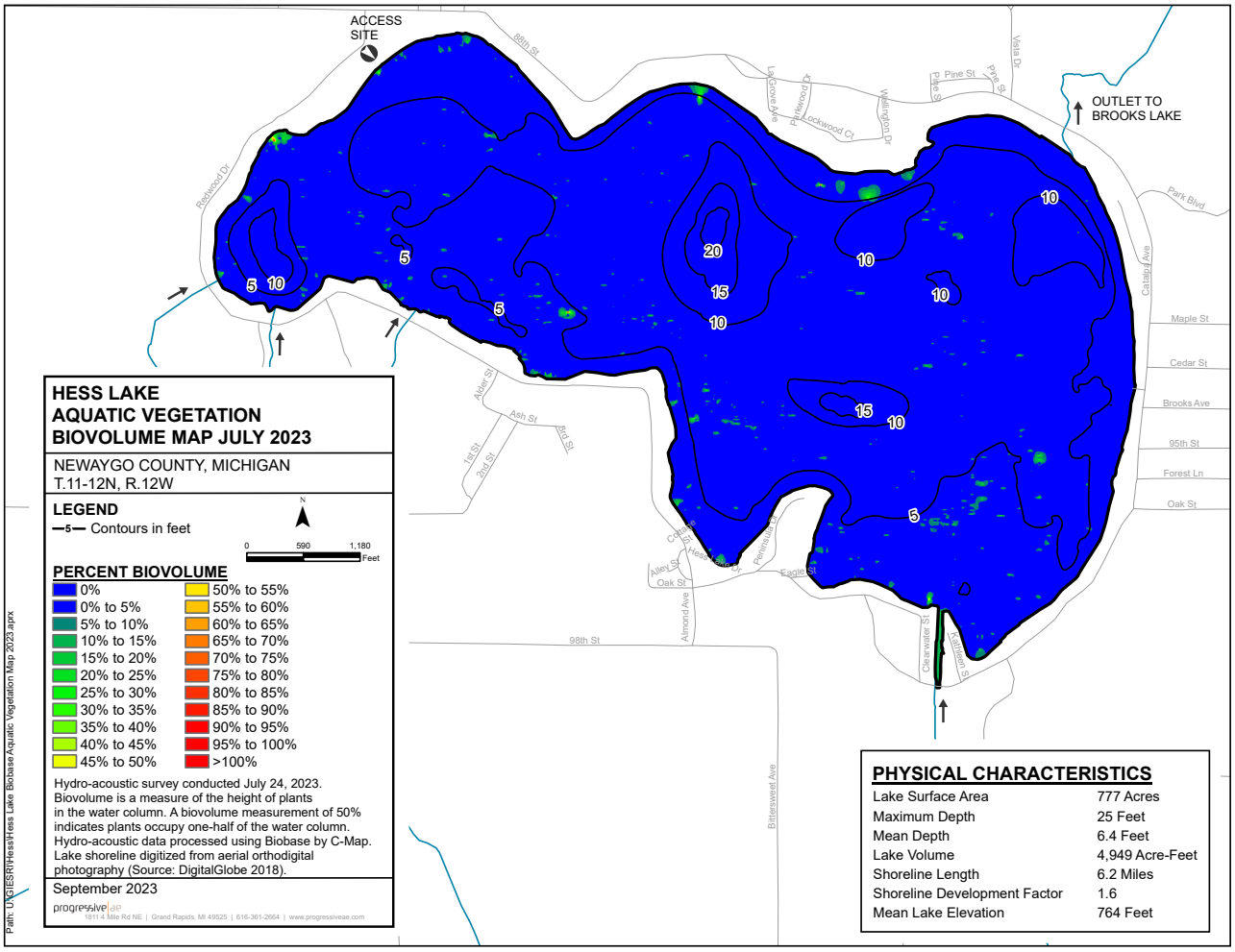
Aquatic plants are an important component of lakes. They produce oxygen during photosynthesis, provide food, habitat and cover for fish, and help stabilize shoreline and bottom sediments.



There are four main aquatic plant groups: submersed, floating-leaved, free-floating, and emergent. Each plant group provides important ecological functions. Maintaining a diversity of aquatic plants is important to sustaining a healthy fishery and a healthy lake.



In addition to the survey to determine plant types, hydro-acoustic soundings of the lake was conducted in mid summer to measure plant bio-volume (i.e., the height of the plants in the water column). When plants grow to the surface, they occupy 100% of the water column, and those areas are shown in red on the map. When plants are not present, 0% of the water column contains plants, and those areas are shown in blue. When plants grow half-way to the surface, they occupy 50% of the water column, and are shown in yellow. In Hess Lake, plants were found growing to a depth of about 5 feet.



Plant control in Hess Lake involves the select use of herbicides to control invasive plant growth. The primary plant targeted for control in Hess Lake is Eurasian milfoil, a non-native (exotic) species that tend to be highly invasive and have the potential to spread quickly if left unchecked.

Plant control activities conducted on Hess Lake in 2023 are summarized in the table below.

Eurasian milfoil (*Myriophyllum spicatum*)

Curlyleaf pondweed (*Potamogeton crispus*)

HESS LAKE
2023 NUISANCE AQUATIC PLANT CONTROL SUMMARY

Work Type	Date	Plants Targeted	Acres
Survey	May 23		
Herbicide	May 31	Eurasian milfoil	7
Survey	June 21		
Survey	August 1		
Survey	August 21		
Total			**7**

In addition to the surveys of the lake to identify invasive plant locations, a vegetation survey of Hess Lake was conducted on August 21 to evaluate the type and abundance of all plants in the lake. The table below lists each plant species observed during the survey and the relative abundance of each. At the time of the survey, 3 submersed species, 2 floating-leaved species, and 8 emergent species were found in the lake. Hess Lake has poor submersed plant diversity.

HESS LAKE AQUATIC PLANTS
AUGUST 21, 2023

Common Name	Scientific Name	Group	Percent of Sites Where Present
Eurasian milfoil	Myriophyllum spicatum	Submersed	17
Coontail	Ceratophyllum demersum	Submersed	5
Curly-leaf pondweed	Potamogeton crispus	Submersed	3
White waterlily	Nymphaea odorata	Floating-leaved	38
Yellow waterlily	Nuphar sp.	Floating-leaved	7
Purple loosestrife	Lythrum salicaria	Emergent	10
Swamp loosestrife	Decodon verticillatus	Emergent	7
Iris	Iris sp.	Emergent	7
Arrowhead	Sagittaria latifolia	Emergent	7
Cattail	Typha sp.	Emergent	4
Phragmites	Phragmites australis	Emergent	2
Pickerelweed	Pontederia cordata	Emergent	2
Bulrush	Schoenoplectus sp.	Emergent	1