



Early Detection and Rapid Response for Aquatic Invasive Plants in Michigan

EPA Grant: EPA R5-GL2010-1 Mounting a Response to New Aquatic Invaders

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Michigan Natural Features Inventory (Phyllis Higman, Suzan Campbell)

Michigan State University (Amos Ziegler, Jo Latimore)

Locations Surveyed* with no EDRR Species Detected

County	Location(s)	County	Location
Allegan	Fennville SGA**	Livingston	Appleton Lake Bishop Lake
Calhoun	Lanes Lake		Cherango Lake Chilson Pond
Cheboygan	Ditches and local pond Little Black River Weadock Drain		Duck Lake East Crooked Lake Gosling Lake
Emmet	Crooked Lake		Hiland Lake Lake Chemung Murray Lake Woodland Lake
Genesee	Bluegill (C.S. Mott Lake) Holloway Reservoir	Oakland	Big Seven Lake Kingwood Lake
Gratiot	Maple River Pine River	Ottawa	Jennie Lake West Olive Estates Ponds
Ingham	Hewes Lake Gilbert Drain		Lake Ovid
Kalamazoo	Duck Lake	Tuscola	Fish Point SGA**
Lapeer	Big Fish Lake Davidson Lake Long Lake Minnewanna Lake Nepessing Lake Sawdel Lake South Branch Flint River Watts Lake	Washtenaw	Geddes Pond
		Wayne	Crosswinds Marsh River Rouge

*Each location surveyed for all 6 priority species

**SGA = State Game Area

Project Background

- 3 year grant funded project through U.S. Environmental Protection Agency

Funding received October 2010

Great Lakes Restoration Initiative (GLRI)

Invasive Species Control and Prevention Program 1.B.2

- ~\$970,000 to DNR and project partners

Michigan Natural Features Inventory (MNFI)

Michigan State University

Midwest Invasive Species Information Network (MISIN)

Project Goals

- Develop a statewide EDRR program for Aquatic Invasive Species

Coincides with revision of Aquatic Invasive Species State Management Plan (AIS SMP)

Contact Sarah LeSage - lesages@michigan.gov

- Eradicate/control 8 to 10 high threat aquatic plant species

6 species listed specifically

Brazilian elodea, water lettuce, water hyacinth, parrot-feather, European frog-bit, flowering rush

Apply EDRR framework and concepts to actual response efforts in the field

EDRR Program Development

- New EDRR section of AIS SMP

Listed as one of four main goals in SMP outline

Identified as second highest priority

- Importance of EDRR recognized by partner state agencies (AIS core team)

DNR – Wildlife, Fisheries, Parks and Recreation, and Law Enforcement Divisions

DEQ – Water Resource Division, and the Office of Great Lakes

MDARD – Pesticide and Plant Pest Management, and Animal Industry Divisions

EDRR Program Framework*

- Surveillance/Reporting
- Verification
- Assessment
- Planning and Communication
- Implementation
- Monitoring
- Completion/Restoration

*Stage-specific details outlined in the AIS SMP – Implementation Table

EDRR Species Detections by County

County	Water Body Name	Latitude	Longitude	Species*
Bay	Nayanquing Point SGA	43.77216	-83.93458	EFB
Calhoun	Lanes Lake	42.36237	-84.98803	FR
Ingham	Grand River	42.59324	-84.59706	WL
Livingston	Base-line Lake	42.42859	-83.89713	FR
Livingston	Portage Lake	42.42868	-83.90909	FR
Livingston	Cook Lake	42.68724	-84.00068	WH
Macomb	VanDebuff Drain	42.57541	-82.82622	FR
Macomb	Clinton River (1)	42.58849	-82.8114	FR, WH
Macomb	Lake St. Clair, Campau Bay	42.59004	-82.78272	FR
Macomb	Clinton River (2)	42.57866	-82.81153	FR, WH
Macomb	Metroschach Metropark	42.58117	-82.79501	EFB, FR
Monroe	Ferri 2 Nuclear Power Plant	41.95885	-83.26683	EFB, FR
Monroe	Estral Beach	41.99386	-83.24302	FR
Monroe	Swan Creek	41.99492	-83.26597	EFB, FR
Monroe	Elm and 175 Wetland	41.90377	-83.36533	FR
Monroe	Little Swan Creek	41.98273	-83.2644	EFB, FR
Monroe	Raisin River	41.90757	-83.37394	FR
Oakland	Lakeville Lake	42.83685	-83.15407	FR
Oakland	Lower Petbone Lake	42.82811	-83.61065	FR
Oakland	Orchard Lake	42.59731	-83.38004	FR
Oakland	Portiac Lake	42.66108	-83.45099	FR, WL
Oakland	Maceday Lake	42.68161	-83.42928	FR
Oakland	Lotus Lake	42.68127	-83.43016	FR
Ontario, CAN	Turkey Creek	42.24554	-83.10529	WH, WL
St. Clair	St. Clair Flats SGA	42.56815	-82.59252	EFB, FR
VanBuren	Reynolds Lake	42.20303	-85.94662	FR
Wayne	Frenchman's Creek	42.10786	-83.17042	EFB
Wayne	Gibraltar Bay	42.09438	-83.15331	FR
Wayne	Lake Erie MetroPark	42.07388	-83.19154	EFB, FR, WL
Wayne	Point Mouillee SGA	42.04741	-83.20465	EFB, FR

*EFB = European frog-bit

*FR = flowering rush

*WH = water hyacinth

*WL = water lettuce

0 Detections



Brazilian Elodea

0 Detections



Parrot Feather

9 Verified Detections



European Frog-bit

24 Verified Detections



Flowering Rush

6 Verified Detections



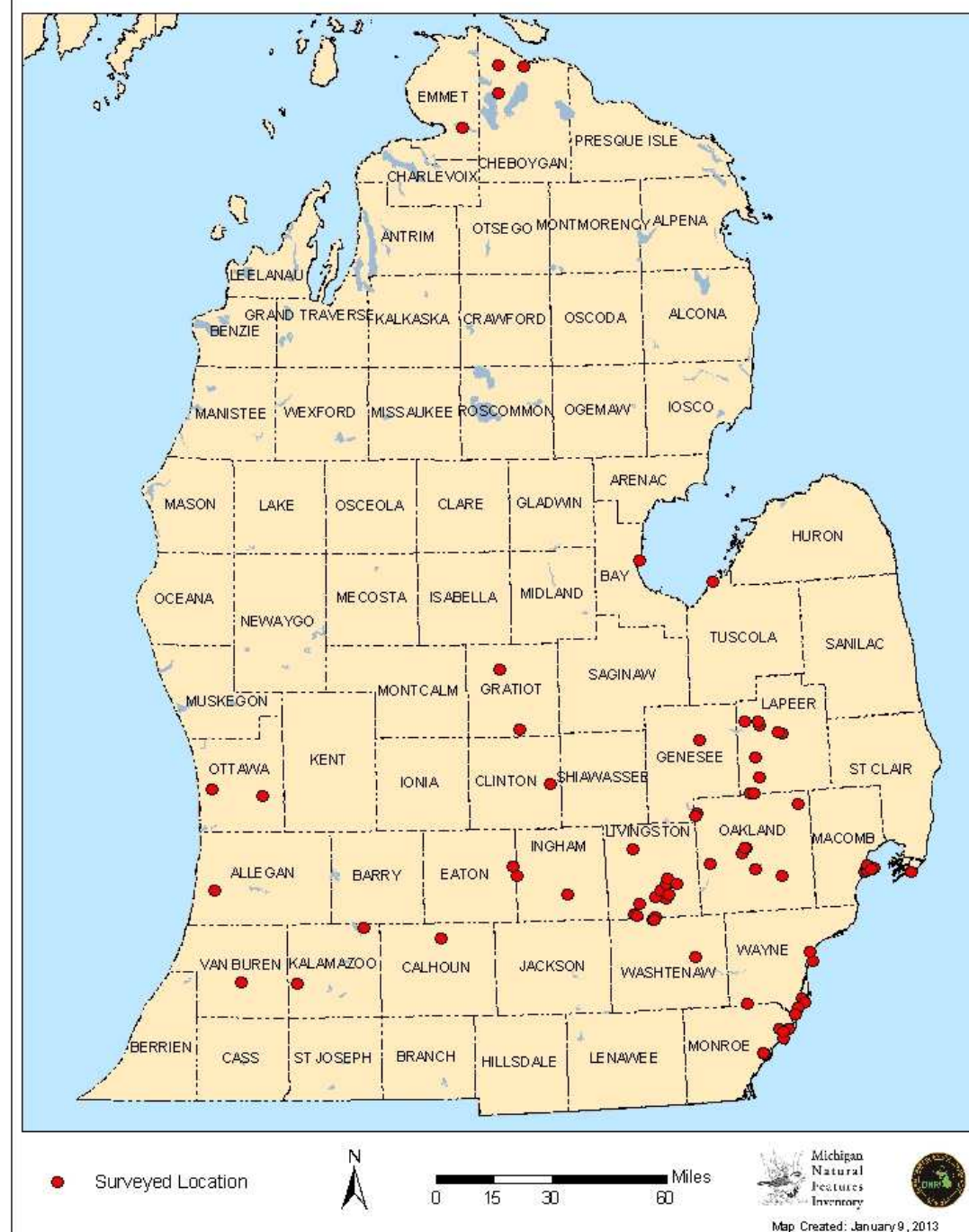
Water Hyacinth

3 Verified Detections

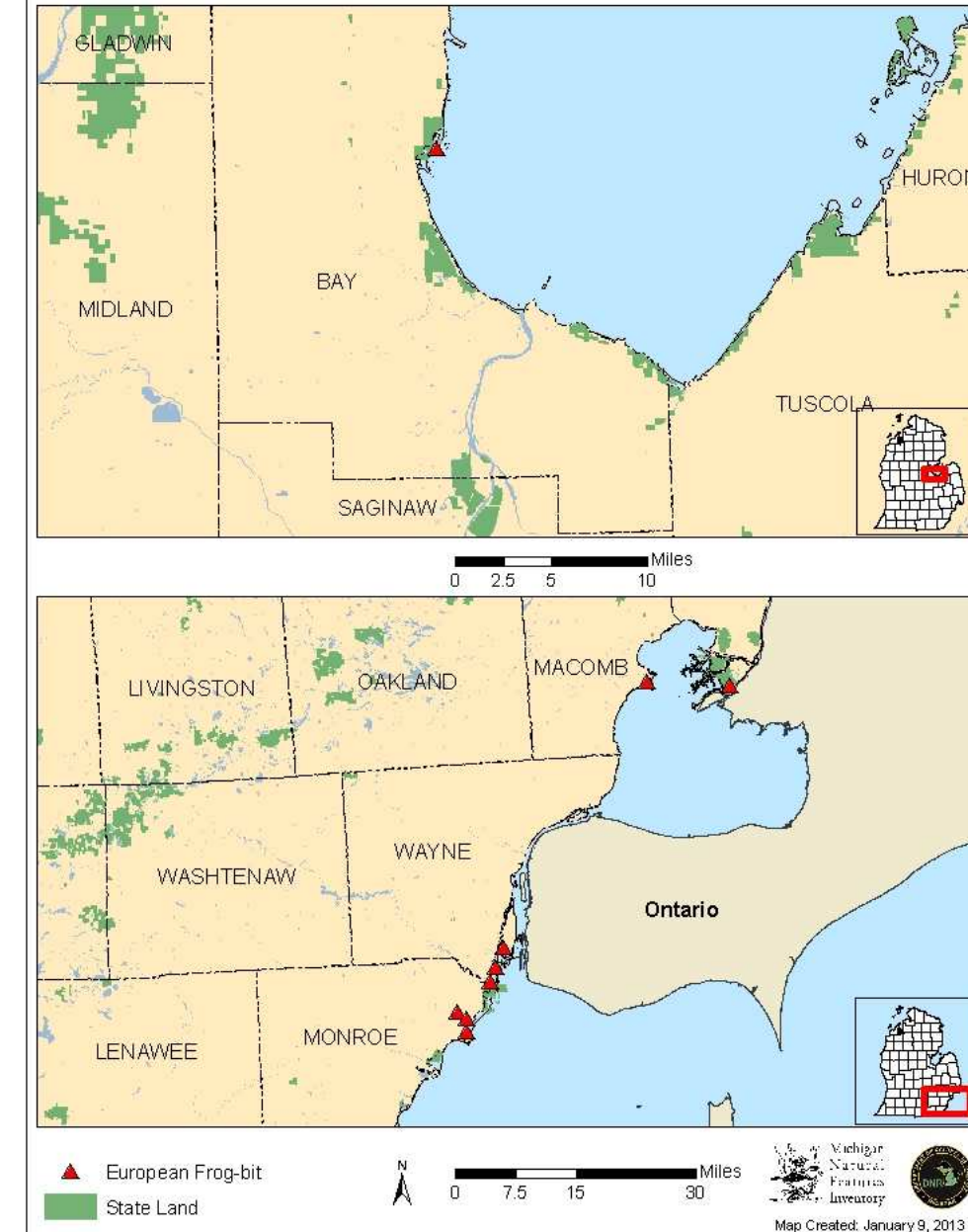


Water Lettuce

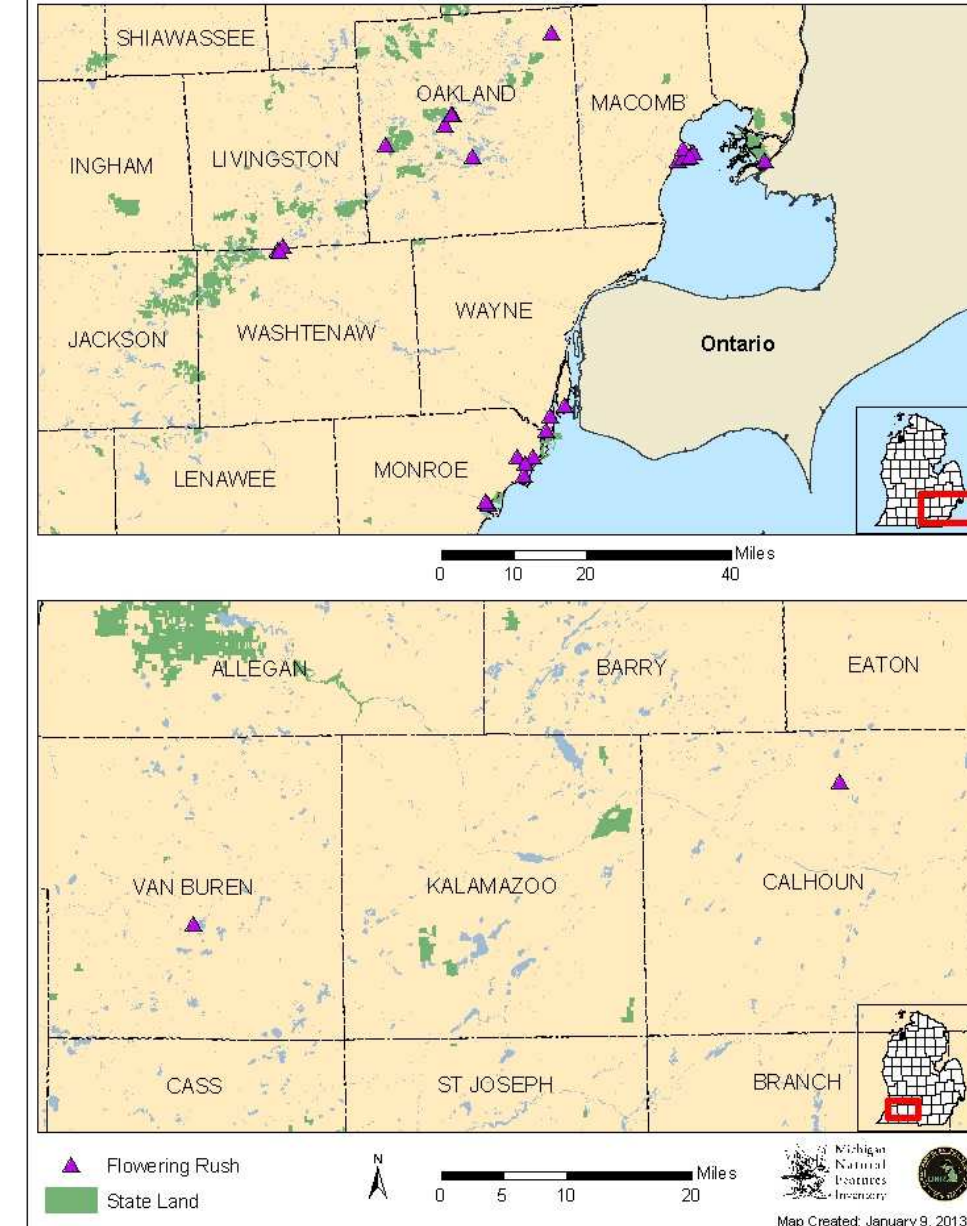
All Locations Surveyed in 2011-2012



European Frog-bit 2011-2012



Flowering Rush 2011-2012



Water Hyacinth 2011-2012



Water Lettuce 2011-2012

