

# Michigan Invasive Species Program



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Michigan Invasive Species Program



# What is an invasive species?

- Non-native
- Causes harm to:
  - The economy
  - The environment
  - Human health



# Non-native...but NOT invasive



# Non-native...but NOT invasive



# Invasive



# Invasive



# Native or invasive?



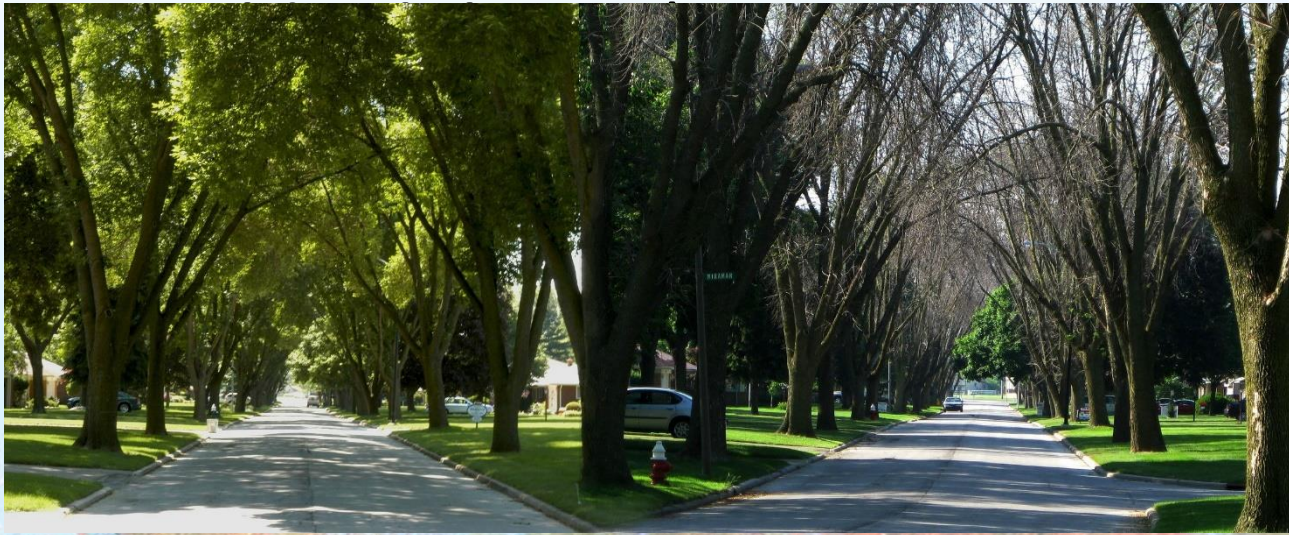
**EGLE**

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# Economic Impact

- Nationwide, over \$1 billion spent to remove and replace trees destroyed by the



\*U.S. Forest Service



# Economic Impact



# Economic Impact



**19% decline  
in mean  
property  
values**

(Olden and Tamayo, 2014)

[saveblacklake.org](http://saveblacklake.org)



# Economic Impact



\$24 million/year



# Environmental Impact



# Environmental Impact



# Human Health Impact



Giant Hogweed

UGA1151079



# Public Safety Impact



# Recreational Impact



# Recreational Impact



PJ Hoffmaster  
State Park



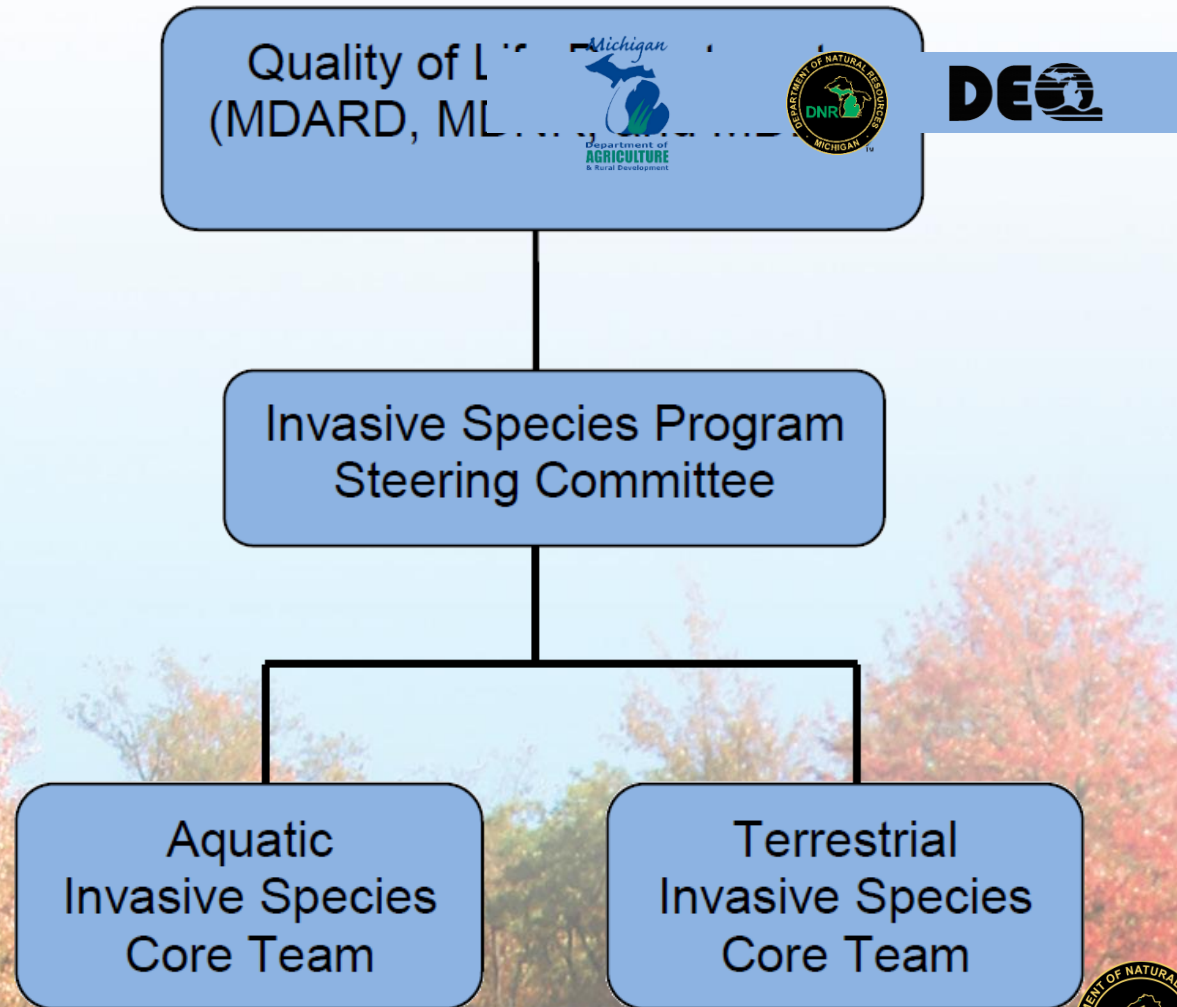
# How do they get here?



# What is Michigan doing about Invasive Species?



# Michigan's Invasive Species Program



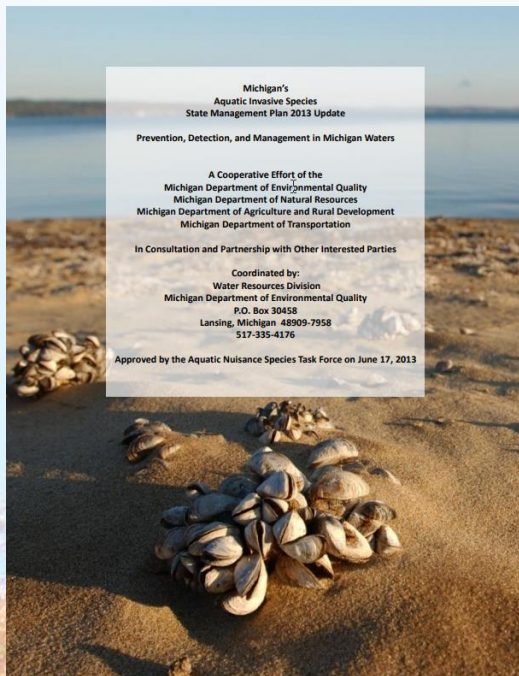
# Program Goals

- Prevent new invasive species introductions.
- Strengthen statewide invasive species early detection and response network.
- Limit the dispersal of recently confirmed invasive species.
- Manage and control widespread, long-established invasive species.

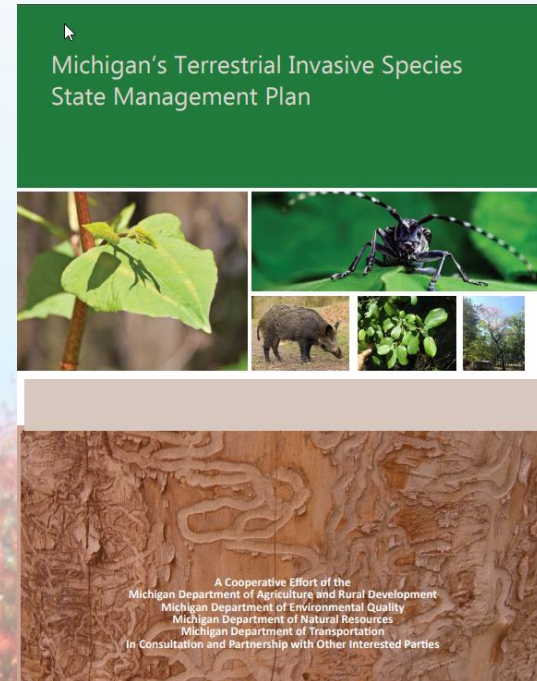


# State Management Plans

- Aquatic Invasive Species Management Plan



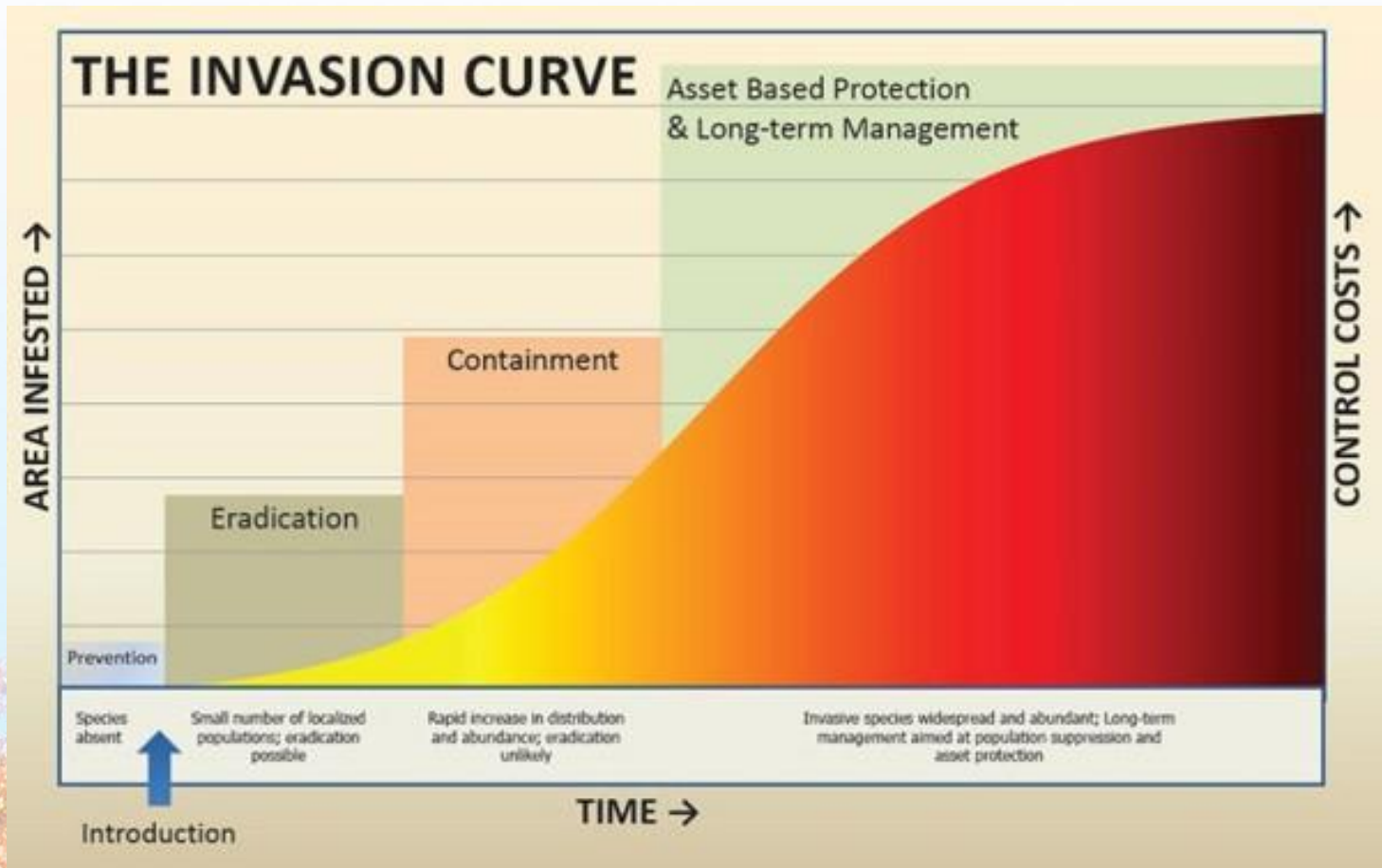
- Terrestrial Invasive Species Management Plan



[Michigan.gov/Invasives](http://Michigan.gov/Invasives) – Control & Management tab



# Prioritizing actions



# Prevention



**STOP AQUATIC  
HITCHHIKERS!™**

✓ **CLEAN**  
✓ **DRAIN**  
✓ **DRY**

Before you transport your boat or equipment



**DON'T MOVE  
FIREWOOD**

- Species not yet in Michigan
- Pathways
- Public education
- Behavior changes



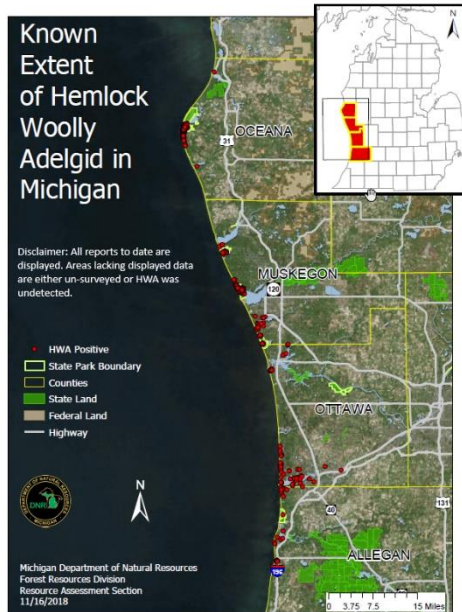
# Early Detection and Response



- New discoveries with limited range or locations
- Survey to determine extent
- Treatment/management
- Goal of eradication



# Control – Limiting the Spread

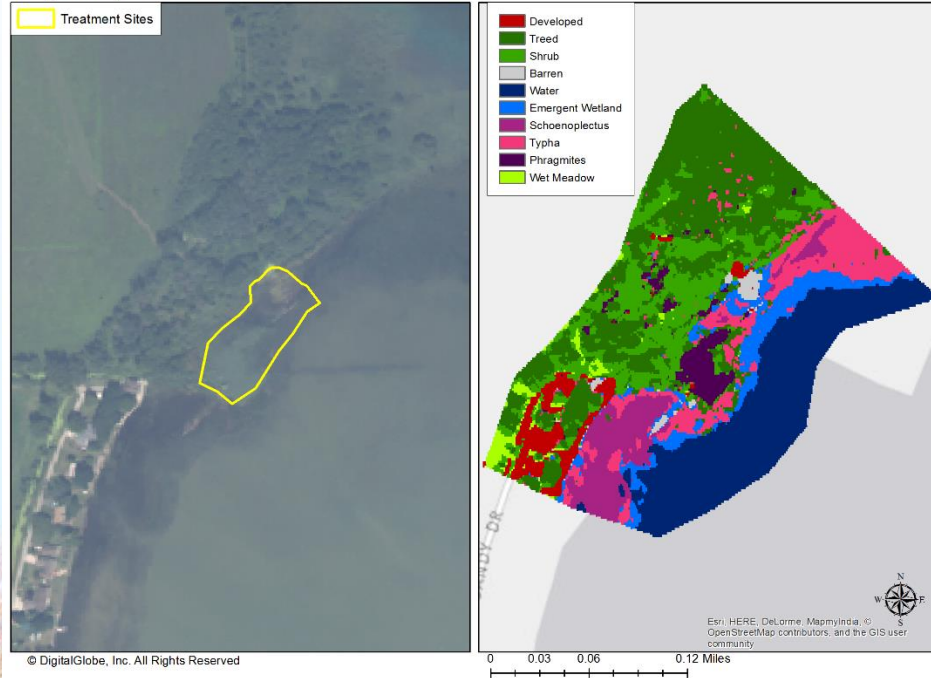


- Broader range, but not everywhere
- Survey
- Treatment
- Quarantine
- Goal of preventing spread, possible eradication



# Management of Established Populations

## Saganing River Mouth South

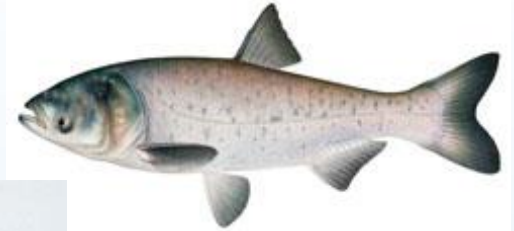


- Can't treat everything
- Prioritize based on economic, environmental and human harm capacity and potential to spread
- Goal of minimizing harm



# Prohibited Species

- Illegal to possess or move
- Not known in Michigan, or limited populations
- Effective management techniques not available



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# Restricted Species



Illegal to possess or  
move

Widely distributed or  
established

Effective management  
techniques available



# Watch List Species

- Not present or newly detected in Michigan
- Threat due to proximity or ease of arrival
- Can include prohibited species
- Encourage public to look for and report ASAP



# Partnerships

- Issue is too big to tackle alone!
- Research, education, best management practices, prevention
- Invasives don't know boundaries
- Impacts can affect everyone
- Our partners:
  - Universities
  - Federal government
  - Other state departments
  - Non-profits
  - Industry organizations
  - K-12
  - Private landowners



# Michigan Invasive Species Grant Program



UGA5045006



# Michigan Invasive Species Grant Program (MISGP)



- Established in 2014
- Funded through annual appropriation by the Michigan legislature (general fund)
- First state funding stream dedicated to invasive species
- \$14.8 million in grants awarded to date



# Administration

- MISGP is a joint effort of Michigan's departments of Environment, Great Lakes, and Energy; Natural Resources; and Agriculture and Rural Development
- Grants administered by the DNR's Finance and Operations Division



# Eligibility

- Projects conducted in Michigan or on Michigan waters
- Applicants:
  - Local, state\*, federal or tribal units of govt.
  - Non-profit 501 (c)(3) organizations
  - Universities

*\* state agencies should contact the MISGP program manager prior to preparing an application*



# Project Information

- Grant award range: \$25,000 to \$400,000
- Required 10% match – may not be waived indirect costs
- Maximum indirect rate of 10%
- Project duration is 1-3 years

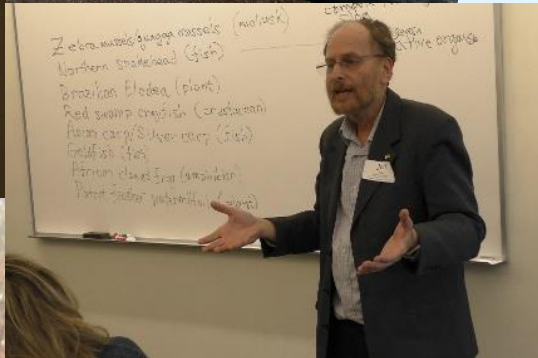


# Program Goals

- Prevent new invasive species introductions.
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# Education and Outreach



- An informed public can help prevent the introduction and spread of invasive species. MISGP has funded a number of outreach programs for classrooms, recreational user groups, industries and the general public.



# Oak Wilt detection and management

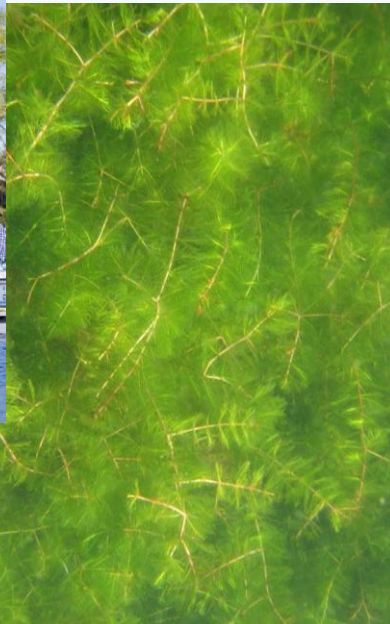


- Projects locating and battling this tree-killing disease in the U.P., northern lower Peninsula and on Belle Isle.



# Improving management for aquatic invasive plants

- To date, \$2.4 million in grants have funded projects to improve detection and management of Eurasian watermilfoil and its hybrids, starry stonewort, Carolina fanwort and European frogbit.



# Invasive Phragmites Management



- MISGP has awarded over \$800,000 to treat phragmites on Michigan's coastlines and inland areas.



# Hemlock Woolly Adelgid



- Statewide coordinating committee
- \$900,000 in MISGP grants for survey and treatment in affected areas



# Cooperative Invasive Species Management Areas (CISMAs)



- MISGP has funded CISMA development and management activities throughout the state. CISMAs provide regional assistance with prevention, detection and control of invasive species.



# Power of Partnerships

- Coordinated efforts across public and private boundaries
- Shared resources
- Reduced contracting and permit costs
- Priorities based on the “big picture”
- Up-to-date methodologies and BMPs
- Increased capacity for survey, treatment and outreach efforts



# Midwest Invasive Species Information Network

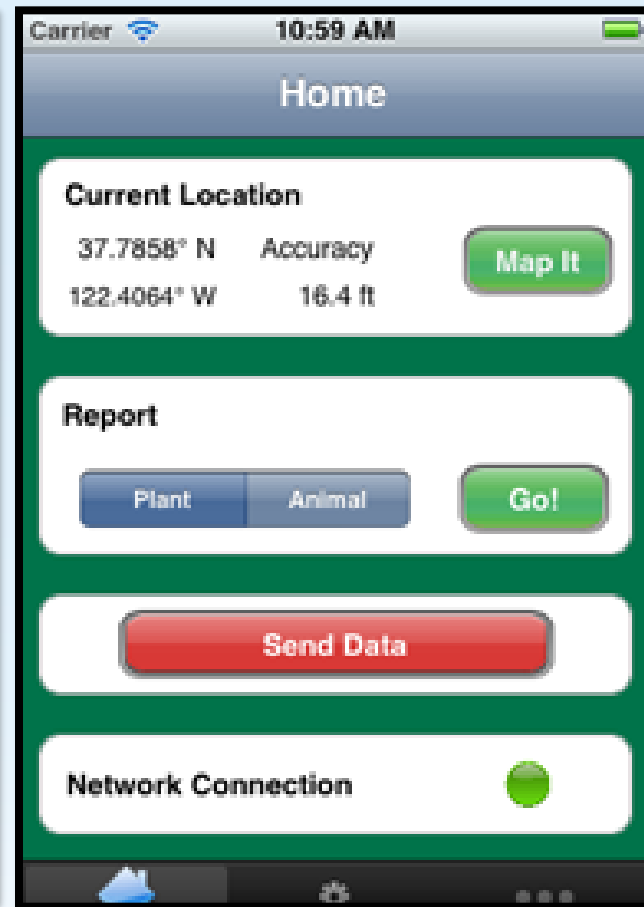
# MISIN

## Midwest Invasive Species Information Network

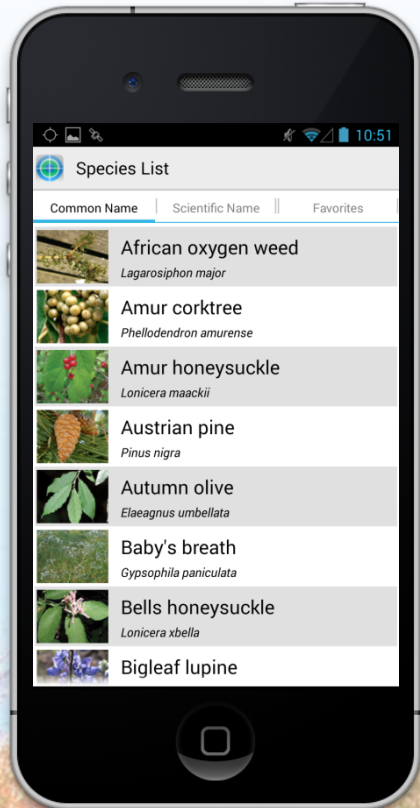
<http://www.misin.msu.edu/>



# Identify, Verify, Report



# Smartphone / Browse Species



Browse / Select

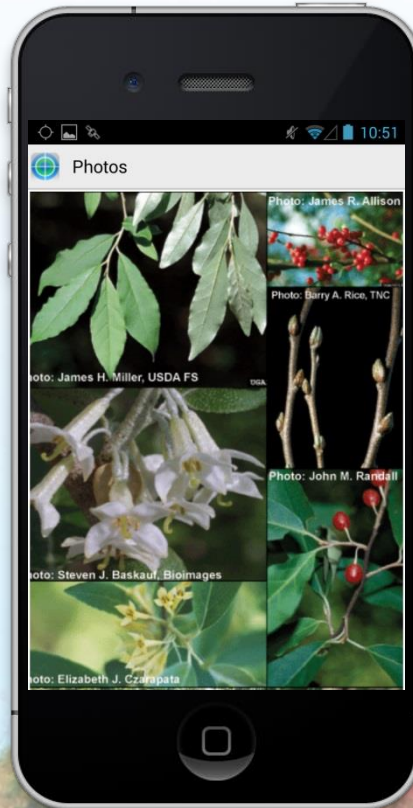
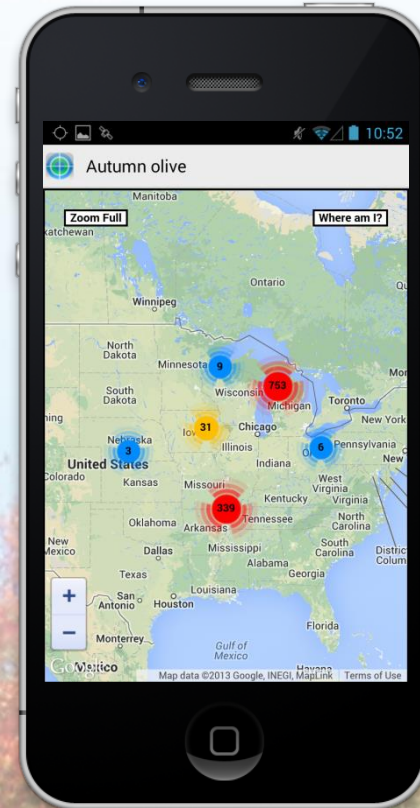


Image Composite



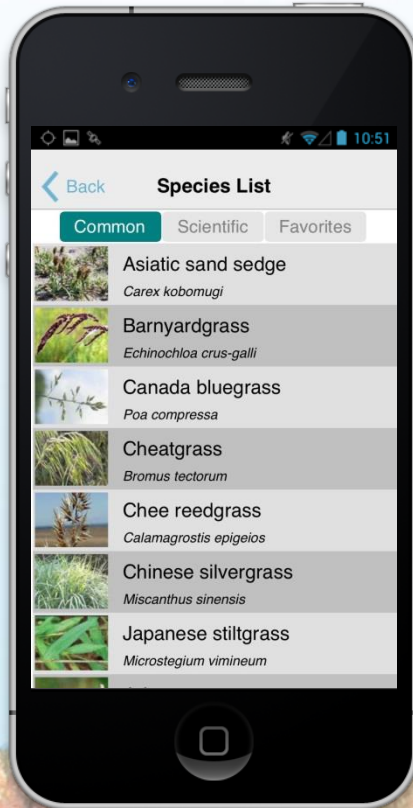
Real-time Observation



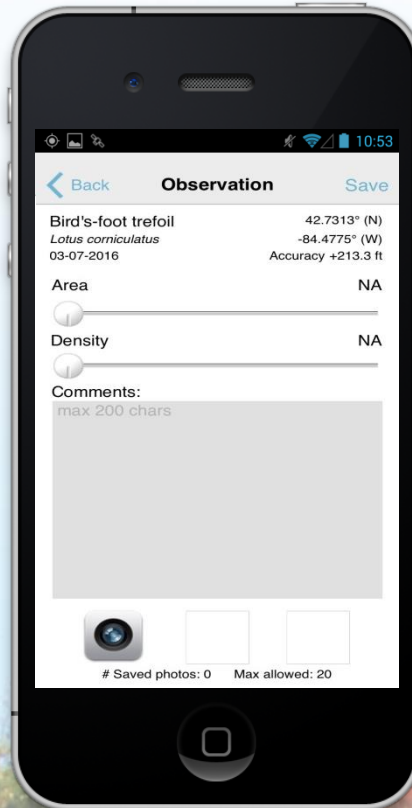
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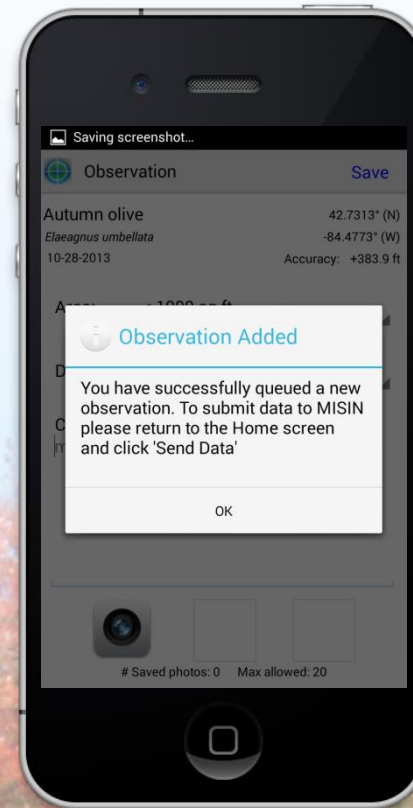
# Smartphone / Data Collection



Hey, Found this!



How bad? Photo!!



Thanks. Got it!

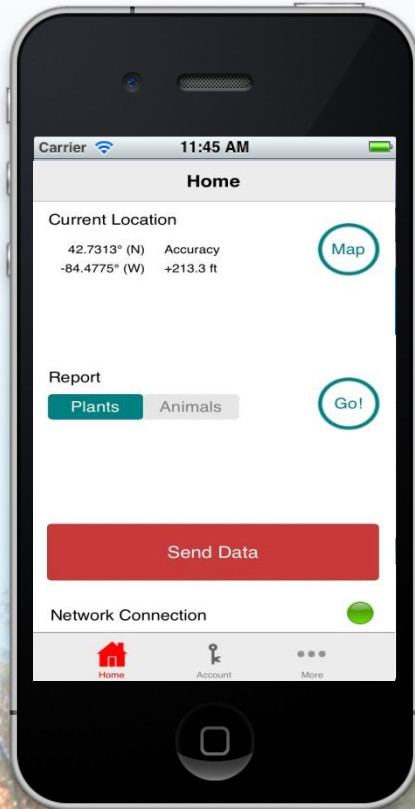


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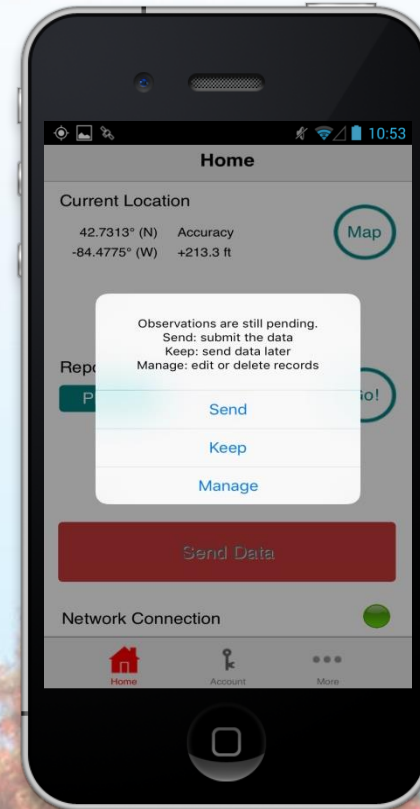
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# Smartphone / Data Submission



Send your data!



Submission Choices



**EGLE**

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# Questions?



[www.michigan.gov/invasives](http://www.michigan.gov/invasives)

