

Welcome

Aquatic Plant Workshop

March 1, 2025



CAES

The Connecticut Agricultural Experiment Station

Putting Science to Work for Society

150th ANNIVERSARY
1875 – 2025



OAIS

Office of Aquatic Invasive Species

Connecticut Agricultural Experiment Station

The Connecticut Agricultural Experiment Station

Notable Discoveries

- Vitamins (vitamin A)
- Hybrid corn
- First soil fertility test (Morgan Soil Test)
- Fungus that causes the collapse of gypsy moth populations
- Contributions in tick and mosquito borne diseases
- First statewide research into CT lakes



Main Laboratories, New Haven



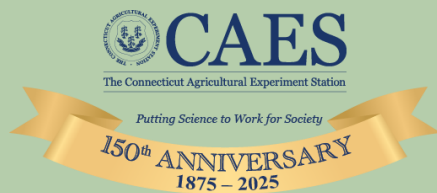
Valley Laboratory , Windsor



Griswold Research Center, Griswold



Lockwood Farm, Hamden



AGENDA



Gregory Bugbee

- State of the State Update
- AIS Spread and Management



Summer Weidman

- Invasive Aquatic Plant Identification
- Remote Sensing Research



Jeremiah Foley IV, Ph.D.

- Integrated Pest Management
- Biocontrol Research



Riley Doherty, GISP

- CT AIS Web App
- Funding Sources

11:30 AM – 12 PM: Questions & Plant ID

Office of Aquatic Invasive Species



Established July 2022

An expansion of the Invasive Aquatic Plant Program (IAPP)



State Representative Christine Palm

Legislative Charges



Research and survey aquatic plant species



Coordinate with the Invasive Plants Council



Serve as a repository for statewide aquatic invasive species data



Advise municipalities on aquatic invasive species management

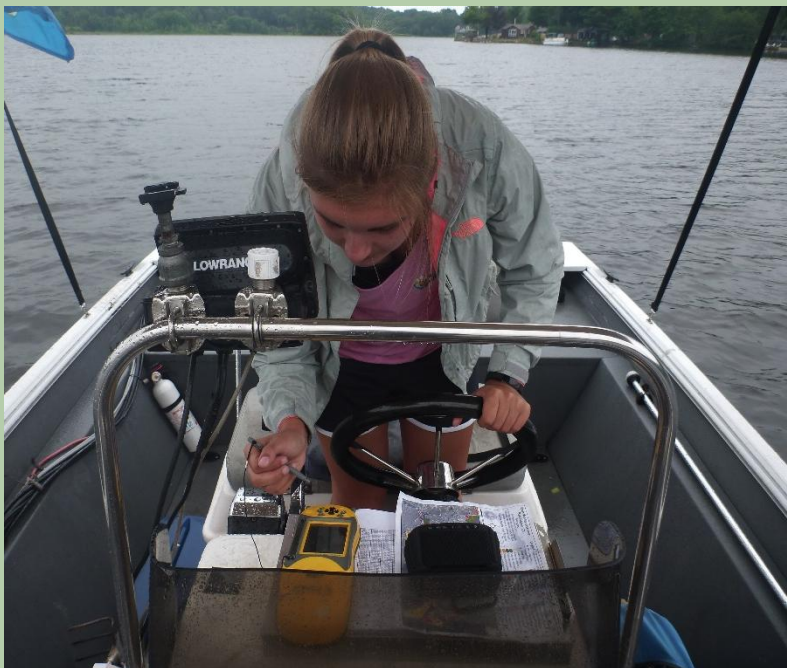


Educate the public on aquatic invasive species issues and identification



Act as a liaison among organizations and state agencies for AIS control and eradication issues

Aquatic Vegetation Surveys



Lake Wononpakook Salisbury, CT 167 acres

Office of Aquatic Invasive Species
Surveyed on August 29 and 31, 2023
by G. Bugbee, R. Doherty, S. Stebbins,
and J. Foley

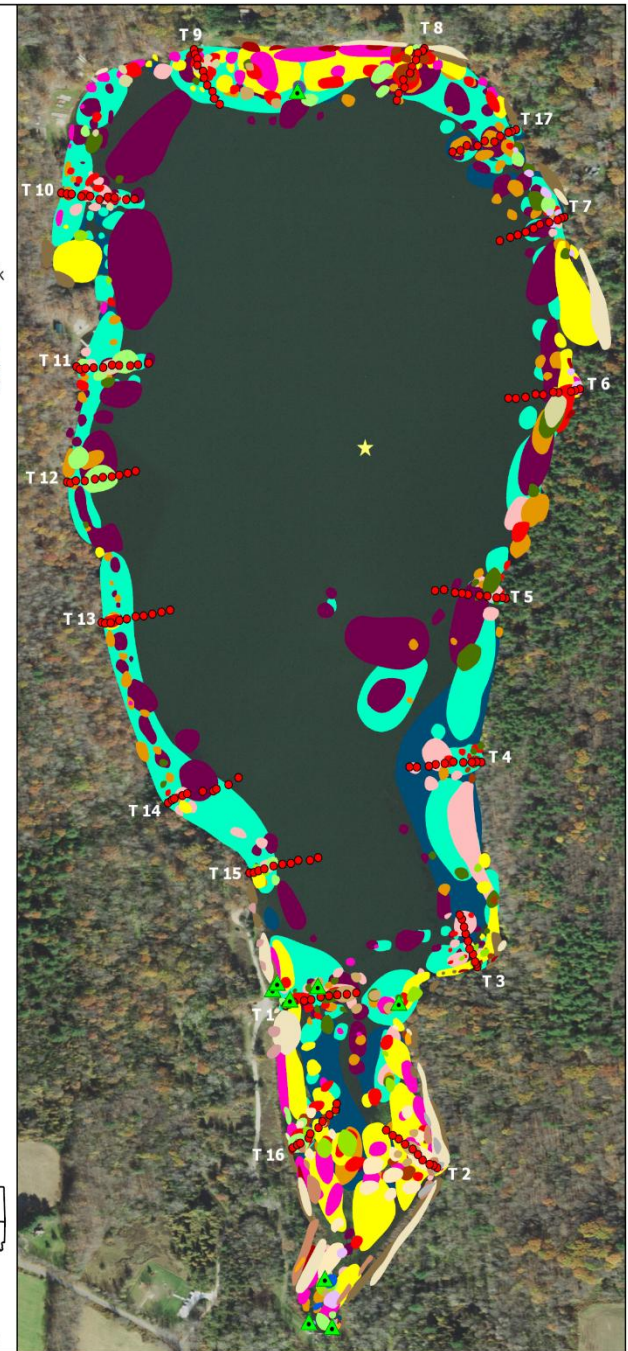
To view locations of individual plant species or
other features, open in Adobe Reader DC and click
on the "Layers" tab. Turn features on or off by
clicking the "Eye" icons

- Collection Point
- Transect Point
- Water Data
- Arrowhead
- Bur-reed
- Candian waterweed
- Cattail
- Common bladderwort
- Coontail
- Eelgrass
- Eurasian watermilfoil*
- Flat-stemmed pondweed
- Floating-leaf pondweed
- Hiddenfruit bladderwort
- Illinois pondweed
- Large-leaf pondweed
- Minor naiad*
- Phragmites*
- Pickerelweed
- Purple loosestrife*
- Rush
- Sago pondweed
- Sedg
- Southern naiad
- Spikerush
- Variable-leaf watermilfoil*
- Water chestnut*
- Watermeal
- Water plantain
- Watershield
- White water lily
- Yellow water lily

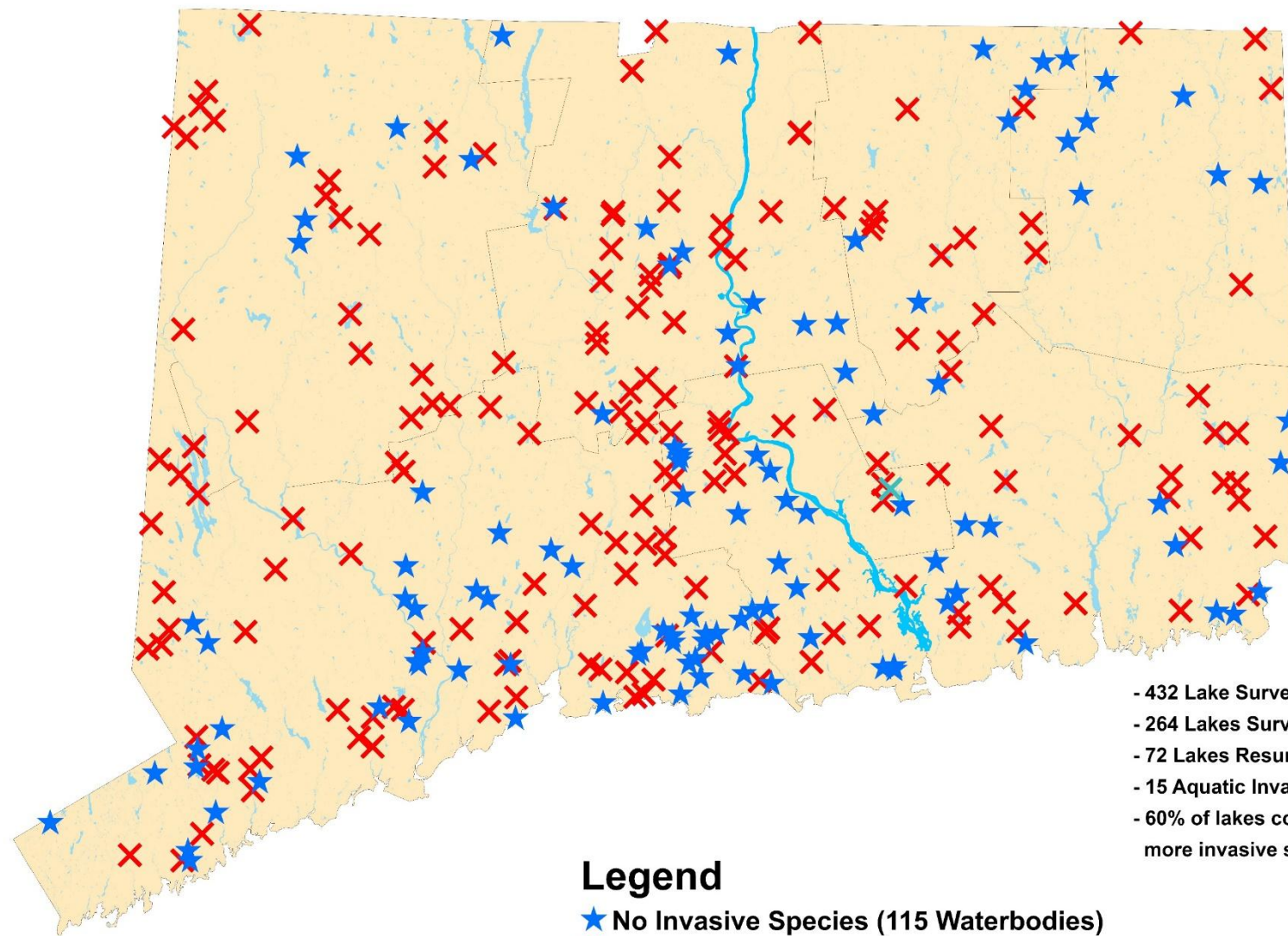


* Invasive

0 250 500 1,000
US Feet



Locations of Invasive Aquatic Plants 2004-2024



- 432 Lake Surveys Performed
- 264 Lakes Surveyed
- 72 Lakes Resurveyed
- 15 Aquatic Invasive Plant Species
- 60% of lakes contained one or more invasive species

Legend

- ★ No Invasive Species (115 Waterbodies)
- ✕ Invasive Species Present (174 Waterbodies)
- Waterbodies
- Counties

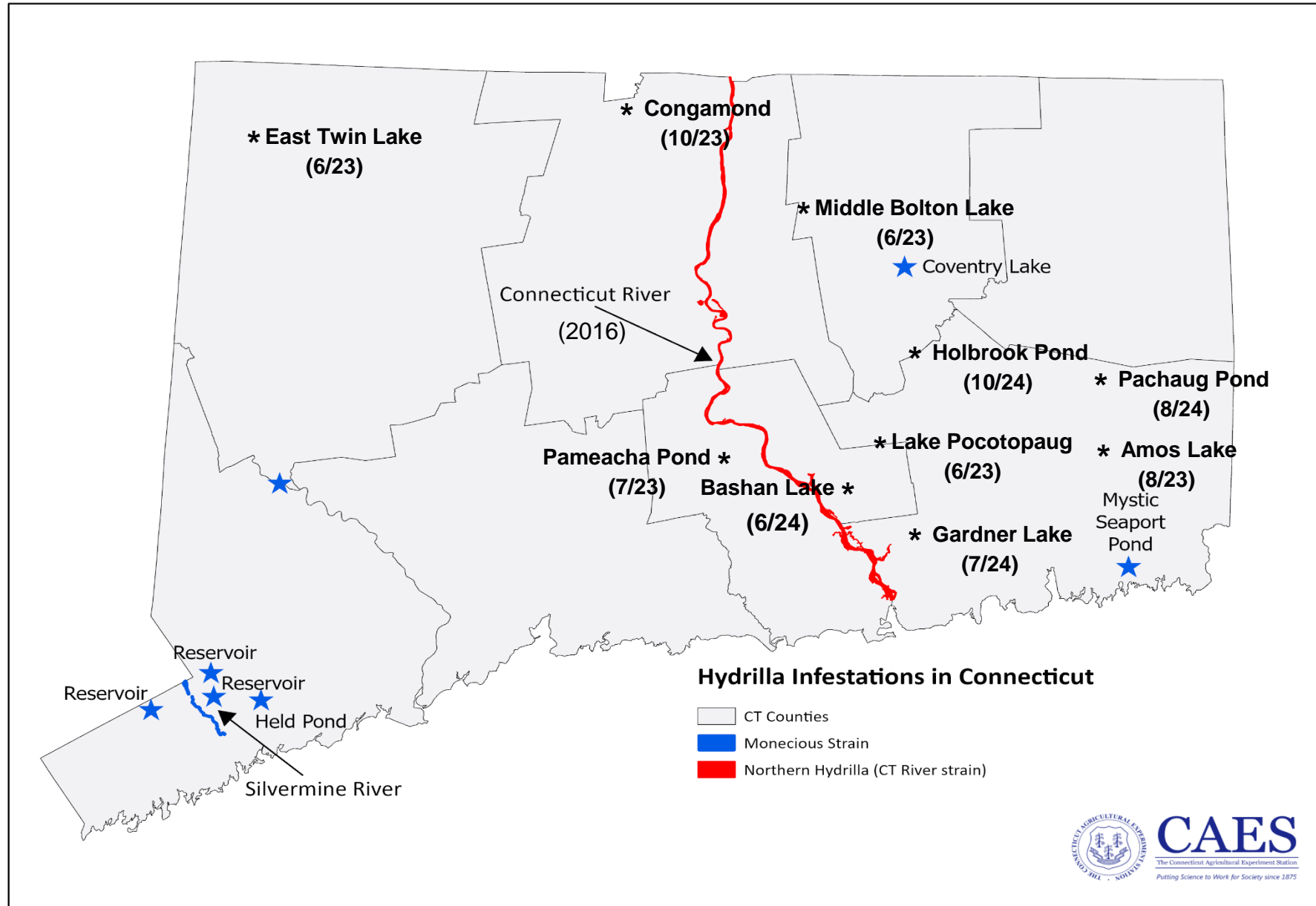


0 5 10 20 Miles

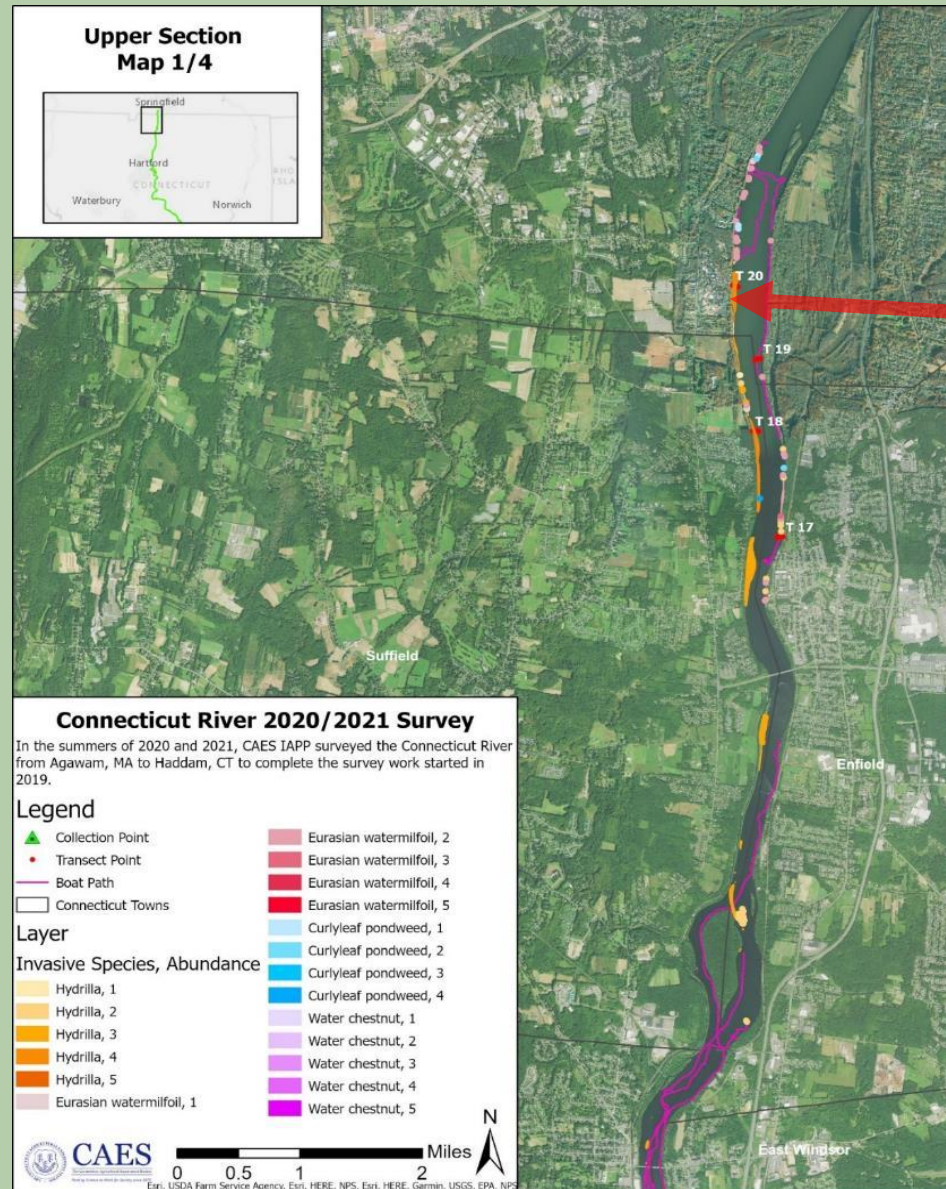
The Spread of Connecticut River Hydrilla



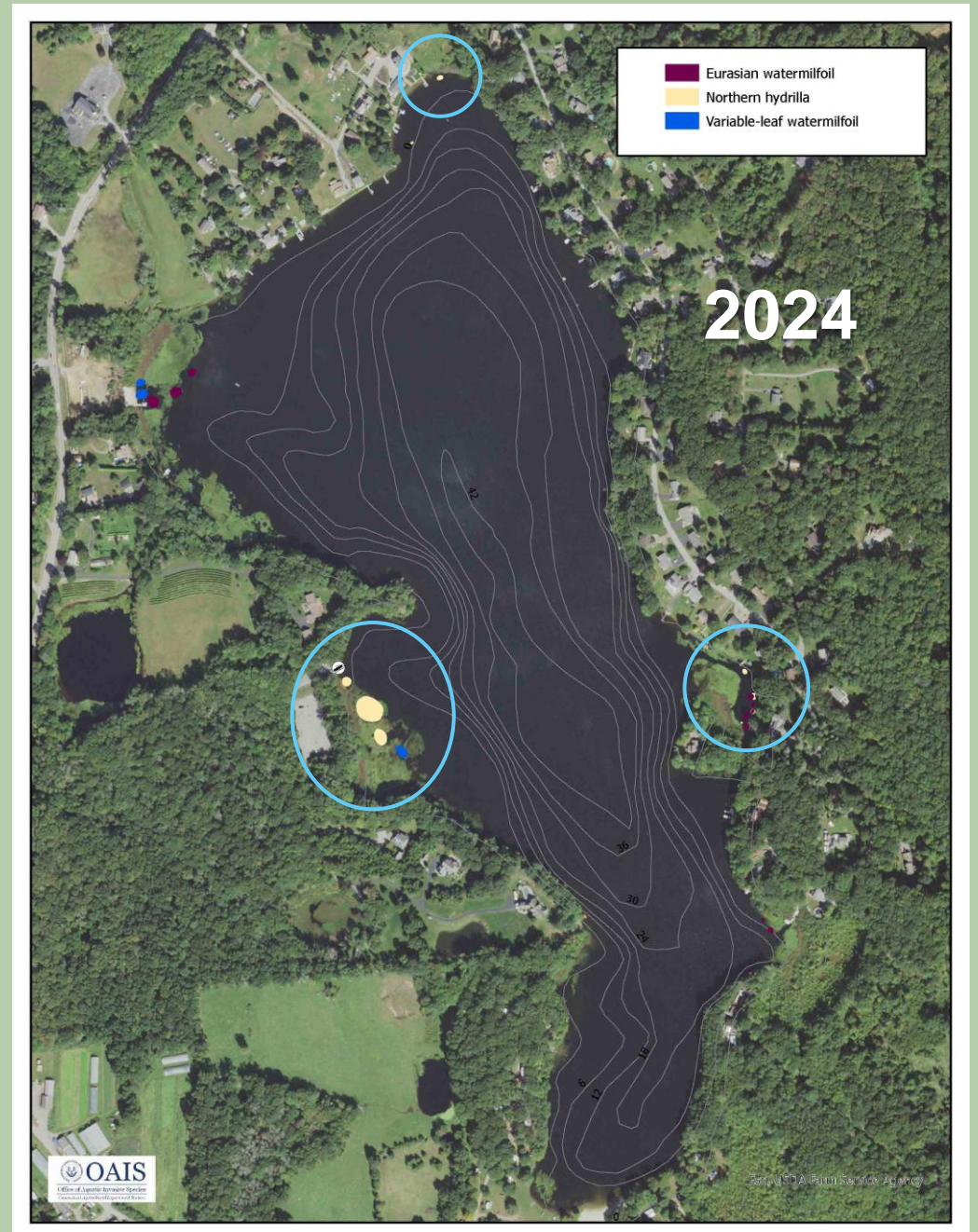
CT Hydrilla Detection Timeline

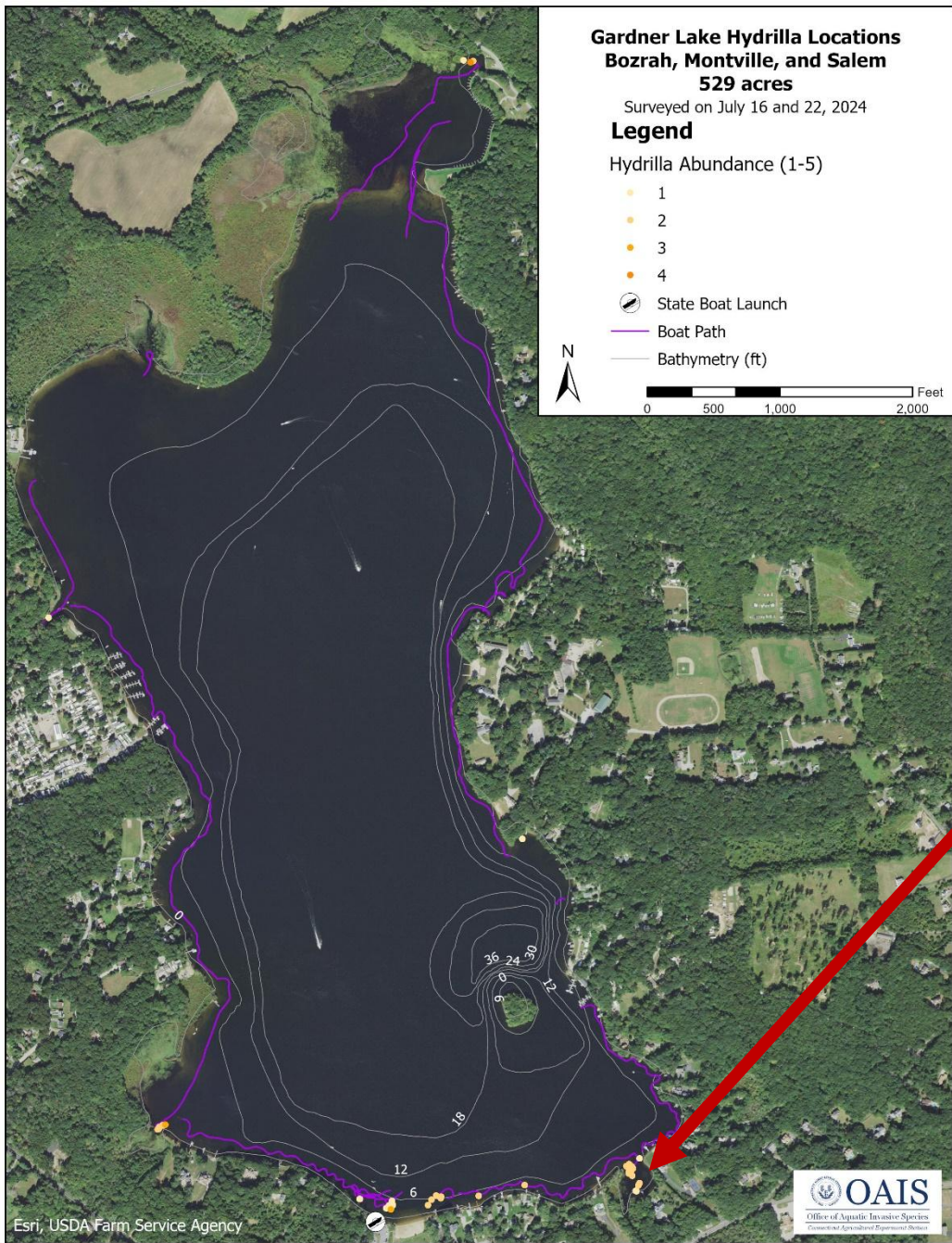


CT River Hydrilla has Not Moved North



Amos Lake



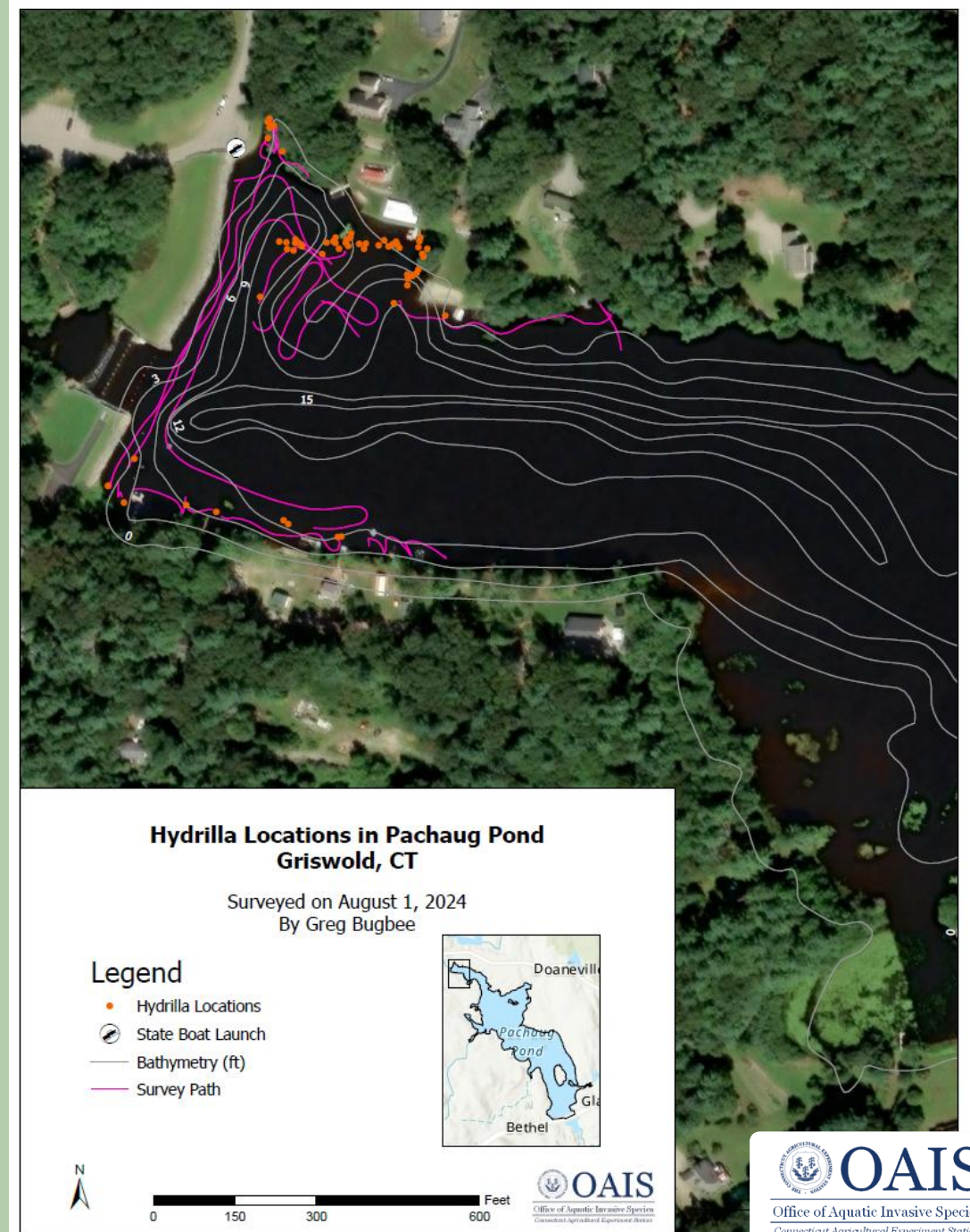


Ultralow Grass Carp Stocking

Leveraging Feeding Preference

Table 1. Grass Carp Feeding Preferences *

Order of Preference	Common Name	Scientific Name
1	Hydrilla	<i>Hydrilla verticillata</i> (L.f.) Royle
2	Muskgrass	<i>Chara</i> spp.
3	Southern Water nymph; Southern Naiad	<i>Najas guadalupensis</i> (Spreng.) Magnus
4	Brazilian Waterweed; Brazilian Egeria; Brazilian Elodea	<i>Egeria densa</i> Planch.
5	Watermeal	<i>Wolffia</i> spp.
6	Duckweed	<i>Lemna</i> spp.; <i>Spirodela</i> spp.; <i>Landoltia</i> spp.
7	Azolla; Waterfern; Mosquitofern	<i>Azolla</i> spp.
8	Pondweeds	<i>Potamogeton</i> spp.; <i>Stuckenia pectinata</i> (L.) Börner; <i>Zannichellia palustris</i> L.
9	Coontail	<i>Ceratophyllum demersum</i> L.
10	Torpedograss	<i>Panicum repens</i> L.
11	Cattail	<i>Typha</i> spp.
12	Crab's-claw; Wateraloe	<i>Stratiotes aloides</i> L.
13	Watercress	<i>Nasturtium</i> spp.
14	Eurasian Watermilfoil	<i>Myriophyllum spicatum</i> L.
15	Tapegrass; American Eelgrass	<i>Vallisneria americana</i> Michx.
16	Parrotfeather	<i>Myriophyllum aquaticum</i> (Vell.) Verdc.
17	Waterhyacinth	<i>Eichhornia crassipes</i> (Mart.) Solms
18	Waterlettuce	<i>Pistia stratiotes</i> L.
19	Waterlily	<i>Nymphaea</i> spp.
20	Spatterdock	<i>Nuphar lutea</i> ssp. <i>advena</i> (Ait.) Kartesz & Gandhi



Lake Pocotopaug

East Hampton

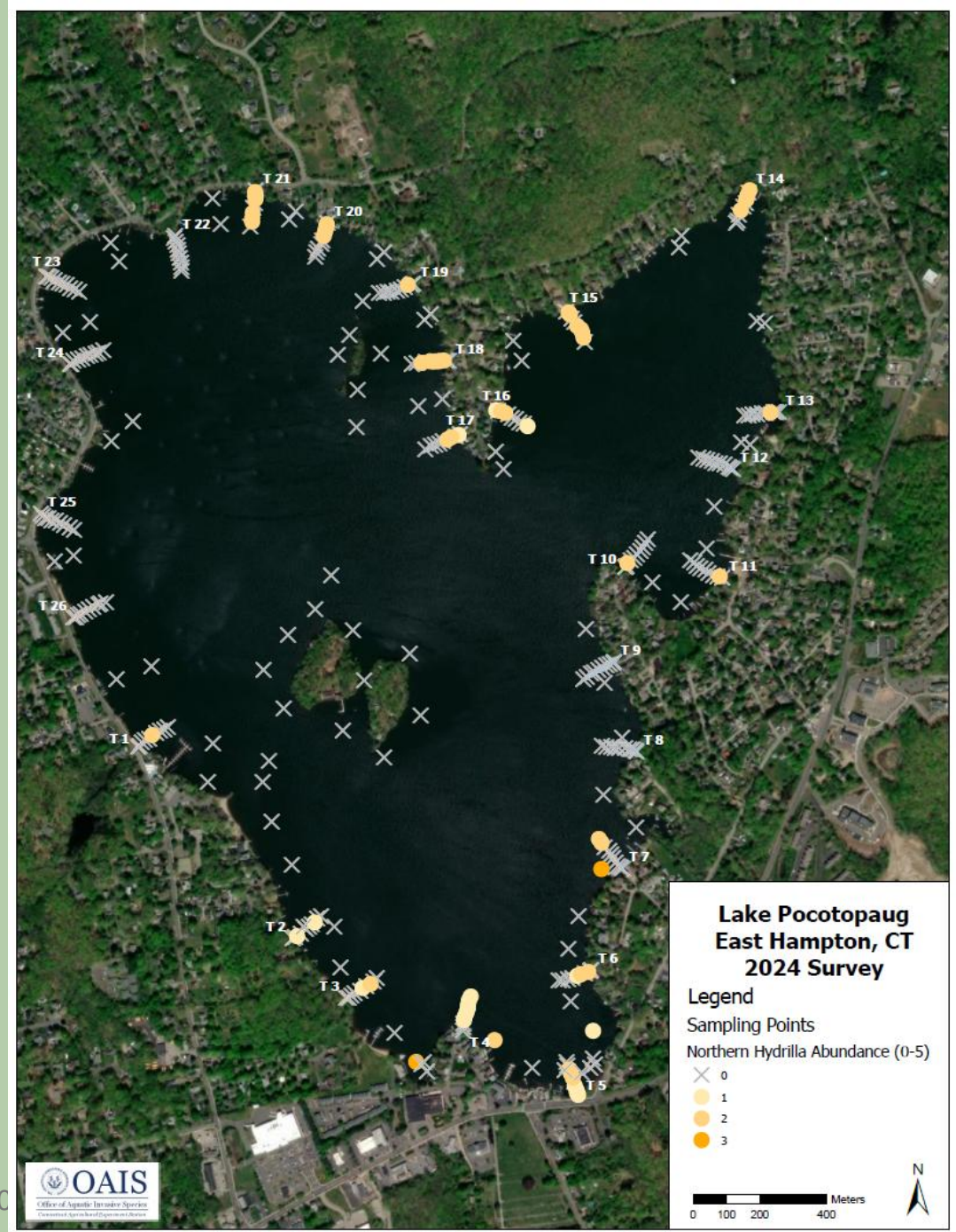
“TAKE A RAKE TO THE LAKE”

Hydrilla Raking Contest!

Sunday, September 22nd

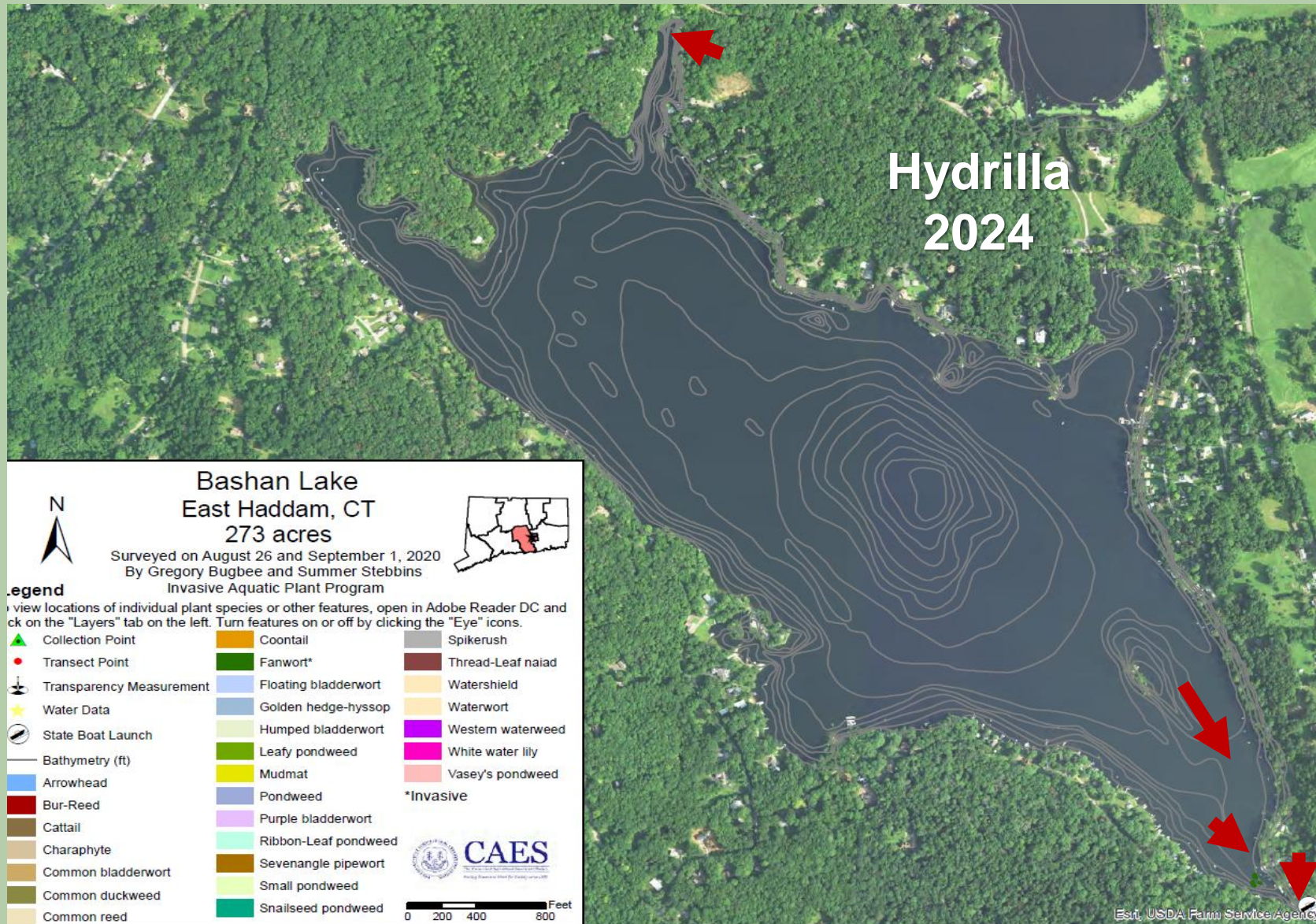
RULES:

- 1) Harvesting of Hydrilla can begin at sunrise on Sept. 22nd and must come from Lake Pocotopaug.
 - 2) Collected Hydrilla must be in trash bags no larger than 45 gallon size or a container approx. 19Lx14Wx14H for weighing purposes on a scale. Harvested Hydrilla not in proper bags or containers will not be accepted.
 - 3) Weigh-in will occur between the hours of 12pm-4pm on Sunday Sept.22, 2024 at Sears Park. Only one delivery to the weigh station of collected Hydrilla is allowed.
 - 4) Judges will collect names, addresses and record weights. All decisions by Judges are final.
 - 5) Three prizes will be awarded of 1st place \$500, 2nd place \$300 and third place \$200. Prize winners will be announced at 4:15pm on the 22nd, unless other arrangements are made. In the event of a tie weight, prizes will be awarded to the first recorded person/group. Prize checks will be mailed to the winners within (5) days.
 - 6) The Conservation Lake Commission and Friends of the Lake reserve the right to publish names and pictures of the prize winners
- For more information email ryenkner3@comcast.net or call Rob Yenknner 860-638-9874





Hand Pulling Pioneer infestation



Bashan Lake, East Haddam



Bashan Lake, East Haddam



Bashan Lake, East Haddam



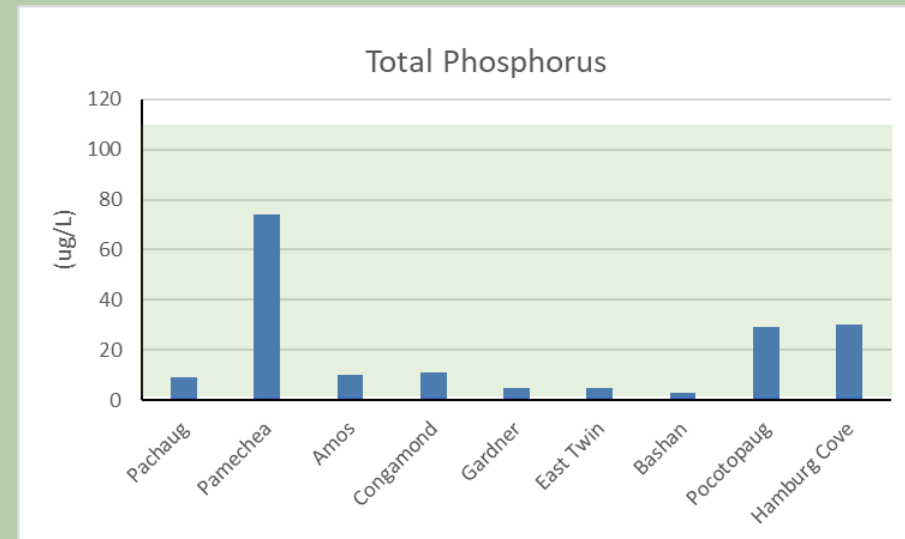
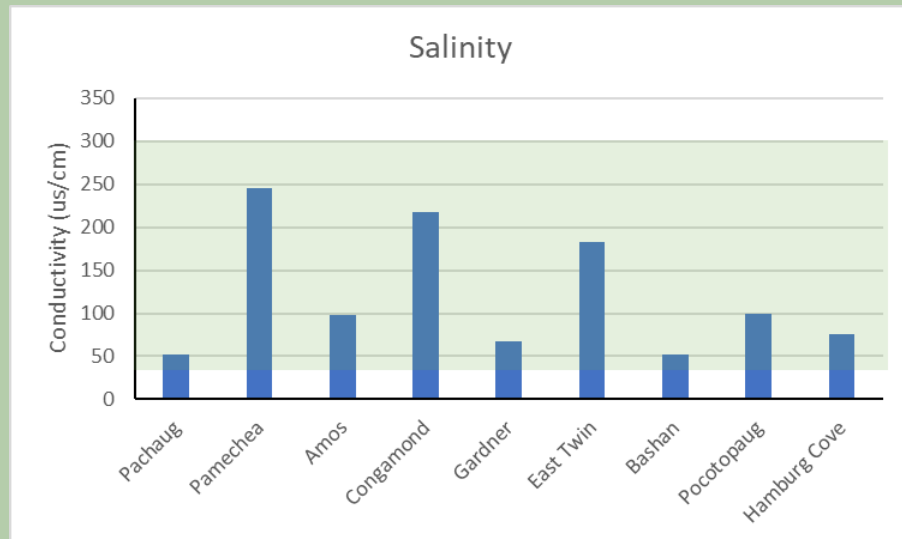
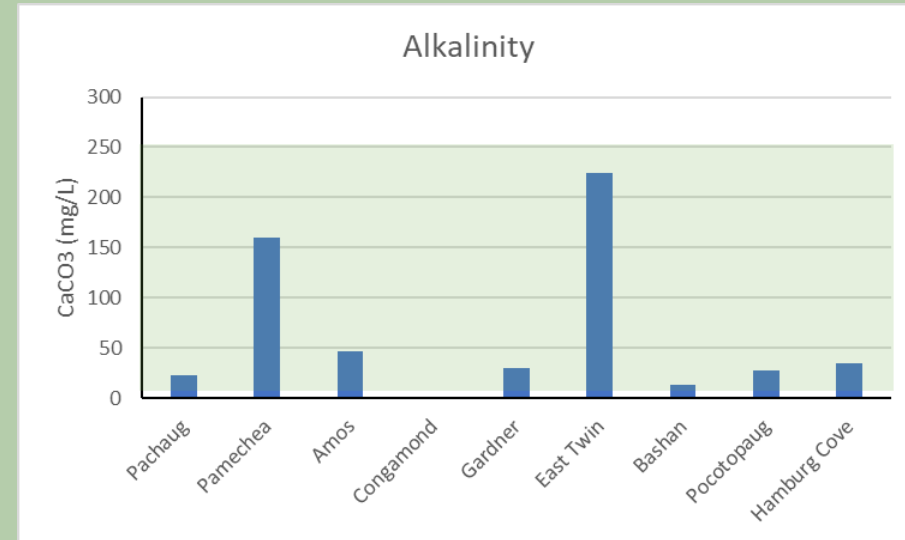
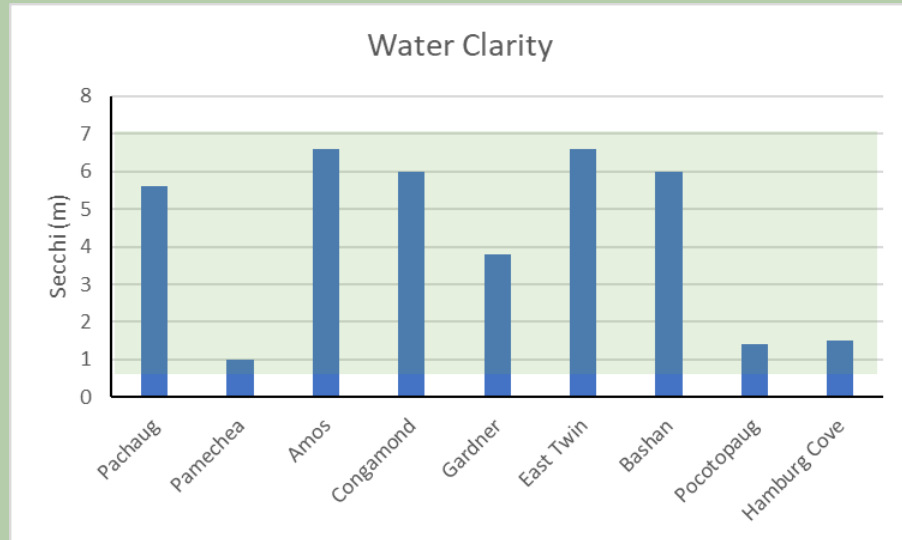
Wethersfield COVE

Treated with Diquat - 2022, 2023, 2024*



Hydrilla Infestations are Not Affected by Water Chemistry

(Green shading = CT Range)

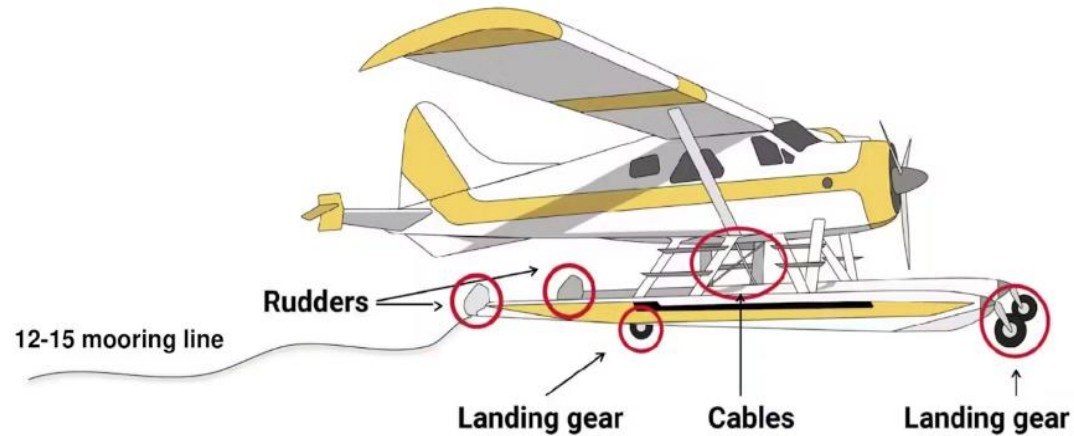


Movement of Watercraft



SEAPLANES

SEAPLANES AS A PATHWAY FOR AIS SPREAD



- Construction factors: floats
- Operation factors: taxi, moorage, landing, takeoff
- Survivability of AIS under various conditions

- **Flight plans are optional when flying under Visual Flight Rules (VFR)**
- **Only Illinois, Maine, Washington, and Wisconsin have AIS requirements**
- **Connecticut requires the owner of any aircraft to register with their municipality**

Next slide

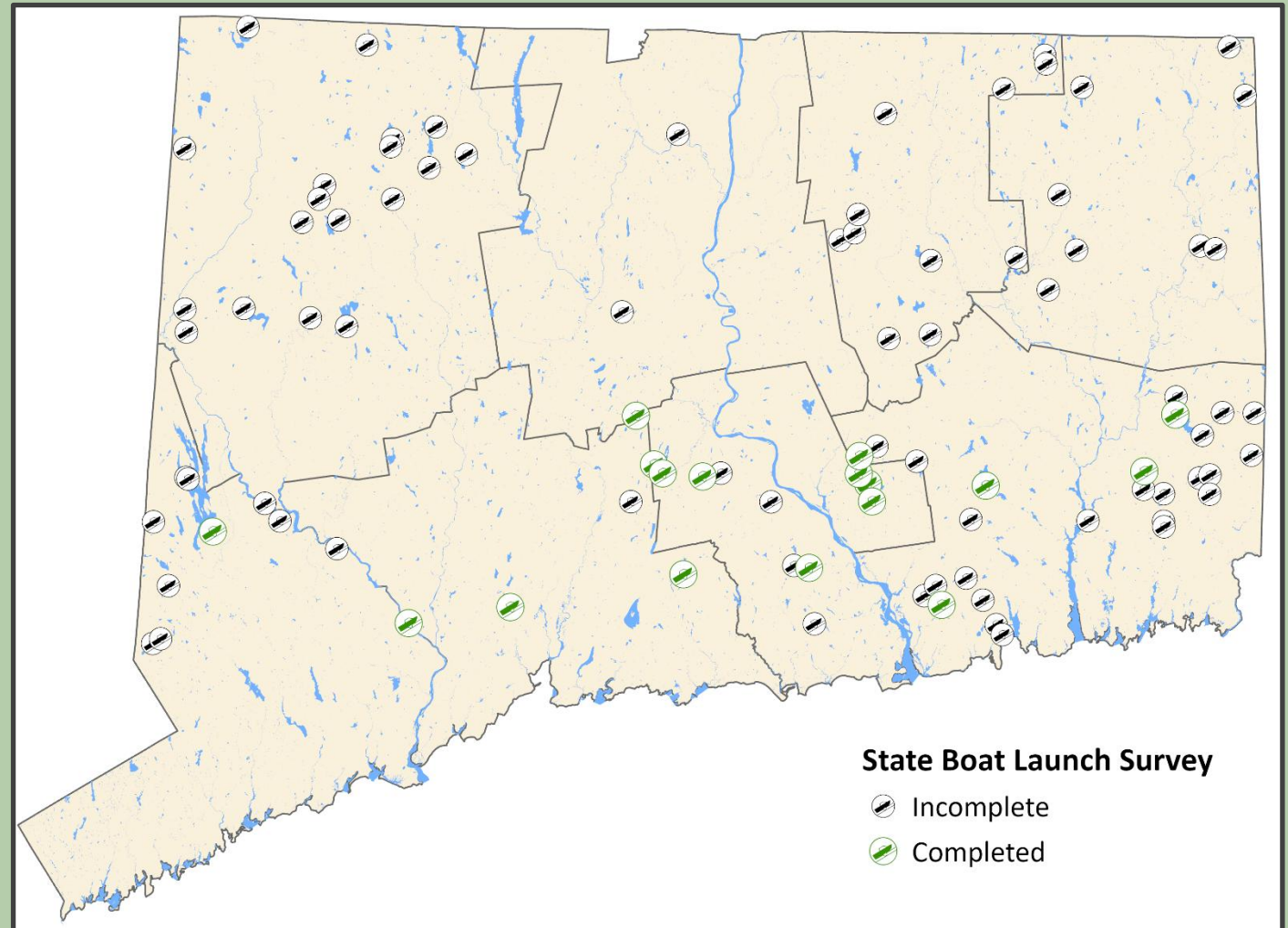


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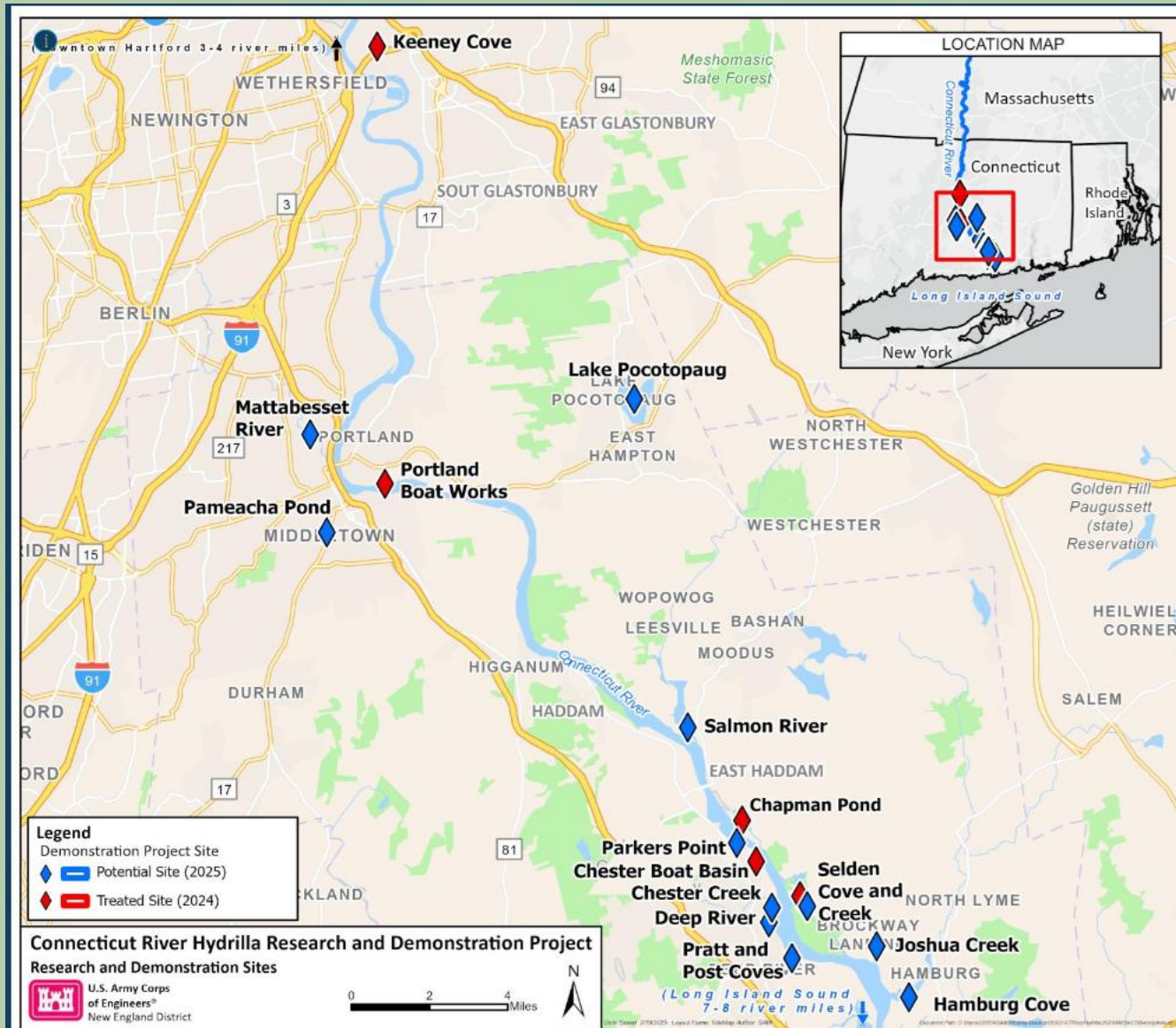


OAIS Survey of all State Boat Launches for Hydrilla

- Funded by CT DEEP AIS grant
- 94 State boat launches
 - Trailer & carry in
- 1 acre radius
- 17 completed (18%) in 2024
 - 4 detections
 - Only 1 new



USACE Hydrilla Control Demonstration Project



Keeney Cove, Pretreatment



Keeney Cove, Posttreatment

CT DEEP AIS Grants

Aquatic Invasive Species Grant Release

CT DEEP Aquatic Invasive Species (AIS) Grant Request for Proposals (RFP) Release

The Connecticut Department of Energy and Environmental Protection (DEEP) has released the Aquatic Invasive Species (AIS) Grant for the year.

The grant aims to provide funds to eligible organizations and individuals to prevent the spread of AIS in Connecticut's inland and marine waters.

Deadline to submit questions to CT DEEP is November 4, 2024

Deadline to apply is December 6, 2024

CT DEEP AIS Grant Webpage



AQUATIC INVASIVE SPECIES (AIS) STAMP



Changes that will affect the 2025 boating season.

<https://portal.ct.gov/DEEP/Boating/Boating-and-Paddling>



2024 AIS STAMP OVERVIEW

- AIS Stamp was included in the 2024 Connecticut vessel registration, if paid prior to September 30, 2024.
- Vessel operators registering their vessel after October 1, 2024, must purchase through the Online Sportsmen Licensing System.
- Out-of-state registered vessel operators must purchase through the Online Sportsmen Licensing System.
- The AIS Stamp expires at the end of the calendar year (December 31).

2025 AIS STAMP CHANGES (Effective October 1, 2024)

- These options are available for CT residents and non-residents
 - Option 1- \$7 individual operator
 - The AIS Stamp is assigned to the individual purchasing the stamp.
 - It will print on the Sportsmen Conservation License as a privilege (like a fishing or hunting license)
 - Option 2- \$20 decal to cover the individual plus all operators of a vessel
 - The decal must be affixed to the vessel and will cover any operator of that vessel
 - The total cost will be \$25 which includes a processing fee
 - The decal will be mailed to the customer and must be adhered to the vessel.
 - The AIS Stamp will also print on the Sportsmen Conservation License as a privilege (like a fishing or hunting license) to cover the purchaser on additional vessels.

INSTRUCTIONS FOR APPLYING AIS THE STAMP DECAL

To properly use the AIS Stamp decal, it must be placed amidship on the port side of your vessel. You have the option of attaching it to the hull of the vessel or at the operator's station.

WHERE DO THE AIS STAMP FEES GO?

All fees collected are deposited into the "Connecticut Lakes, Rivers and Ponds Preservation Account". This account provides funding through a competitive grant process to state and municipal agencies, as well as non-profit organizations. These funds are utilized to conduct research on CT's lakes, rivers, and ponds, provide public education, and enhance public awareness. This ultimately helps improve the management of natural resources throughout the state.

If you have additional questions, contact DEEP Boating at deep.boating@ct.gov or 860-434-8638.

WHO NEEDS AN AIS STAMP?

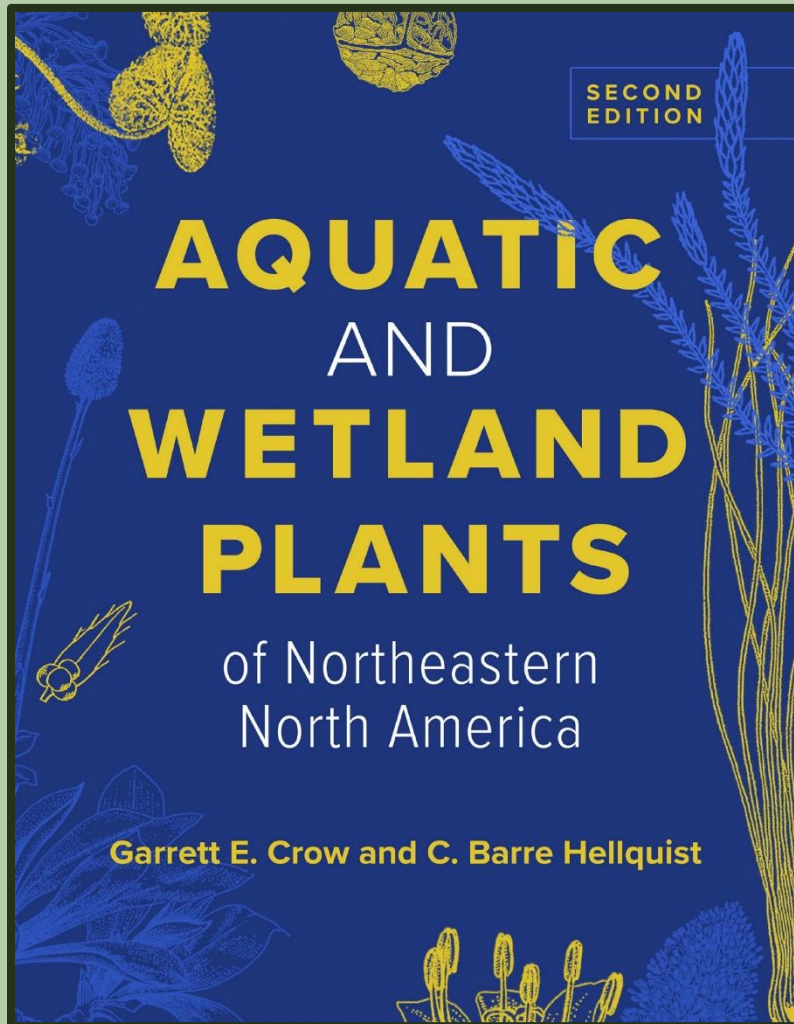
- Any person who operates a vessel on Connecticut inland waters and is required to display a registration decal, issued by this state or another state must have a CT AIS Stamp.
- For CT residents, until September 30, 2024, the AIS Stamp will be included with your Connecticut vessel registration.
- After October 1, 2024, CT residents needing an AIS Stamp or vessel decal must purchase through the Online Sportsmen Licensing System.
- For vessels registered out-of-state, the AIS Stamp must be purchased through the Online Sportsmen Licensing System.
- The AIS Stamp will be valid for the calendar year it was issued.
- The demarcation line for inland waters is the same as that used for inland fishing licenses.

How to purchase your AIS Stamp

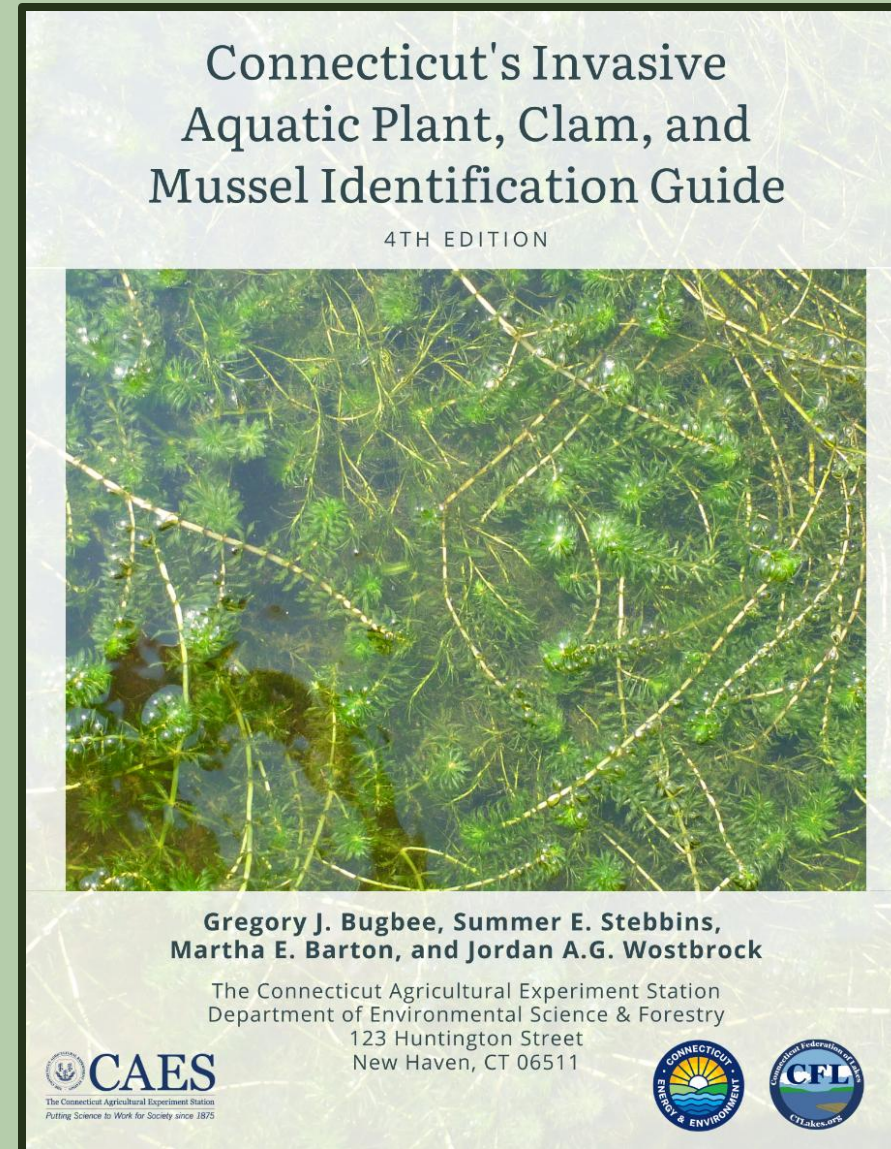


Beginning October 1, 2024, you must obtain your AIS Stamp on the Sportsmen Online Licensing System- <https://ct.aspirafocus.com/internetsales>

Identification Guides



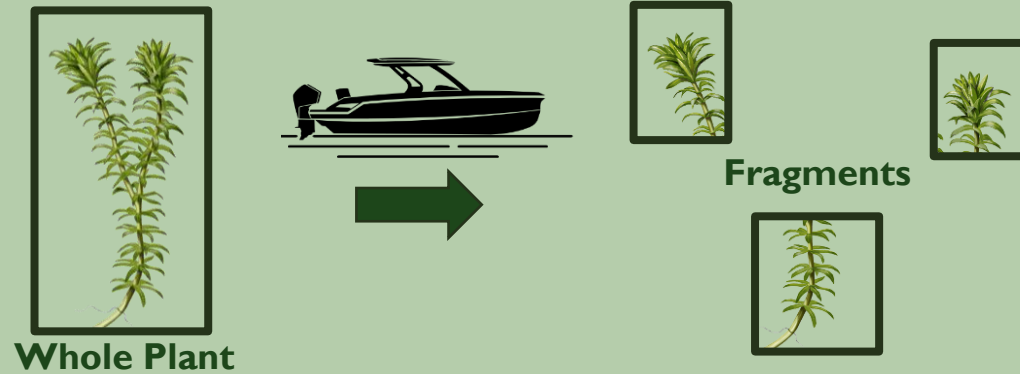
<https://uwpress.wisc.edu/books/5921.htm>



<https://portal.ct.gov/-/media/CAES/DOCUMENTS/Publications/Bulletins/BI087.pdf>

Plant Terms (Reproduction)

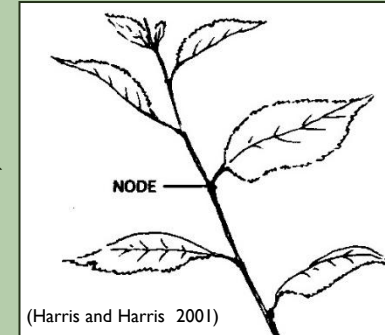
- **Fragment** - plant part that breaks off and grows to form a genetically identical plant
- **Tuber** - modified, underground stem for starch storage and form of vegetative reproduction
- **Turion** - a modified leaf bud on a stem or shoot, form of vegetative reproduction



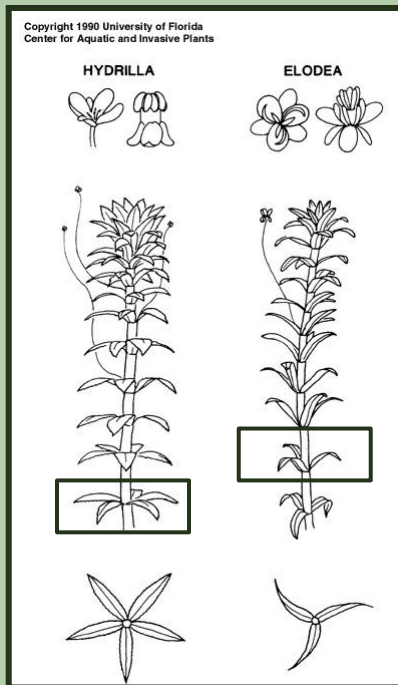
Plant Terms (Leaves)



- **Node** - the point where leaves or branches attach to the stem



- **Opposite** - across from each other at the same node



- **Alternate** - one leaf per node on different sides of the stem

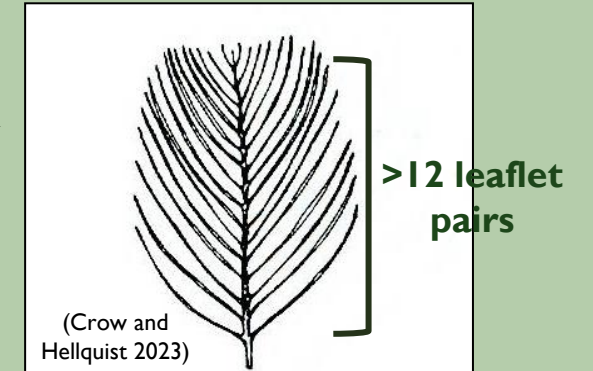


- **Whorled** - three or more leaves at the same node, forming a ring-like arrangement

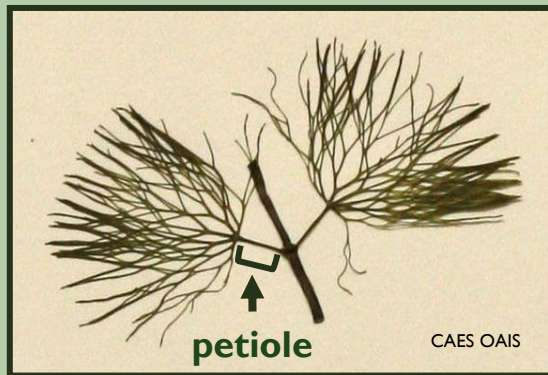
Plant Terms

(Leaves cont.)

- **Leaflet** – one of many leaf-like looking structures that when combined make one leaf



- **Petiole** - leaf stalk



- **Rosette** - a cluster of leaves that surround the stem at the same point

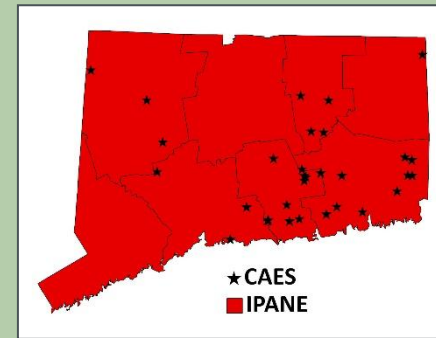


- **Tooth/Teeth** – sharp points along a leaf margin



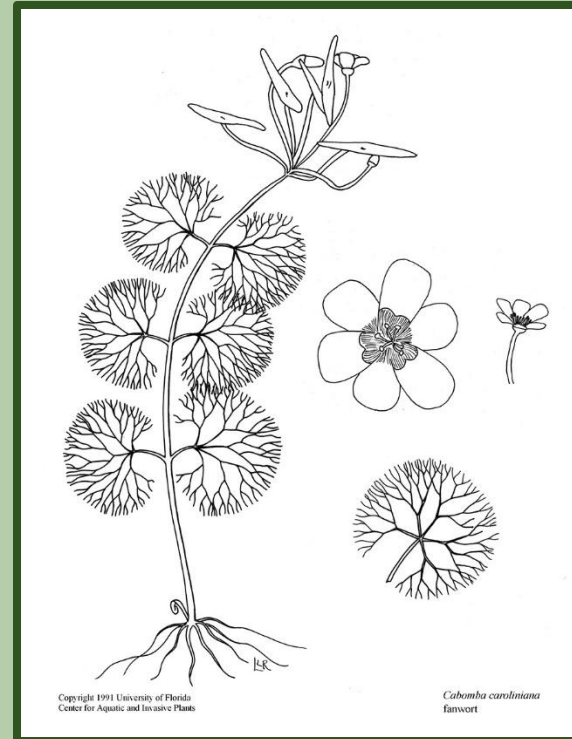
Fanwort

Cabomba caroliniana



Key Info:

- Introduced to CT in 1937
- Submersed plant
- Grows in 3-10 feet of water
- Spreads through fragmentation

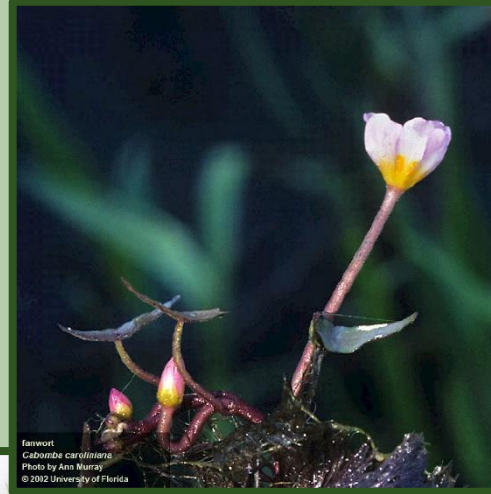


Fanwort

Cabomba caroliniana

Key Features:

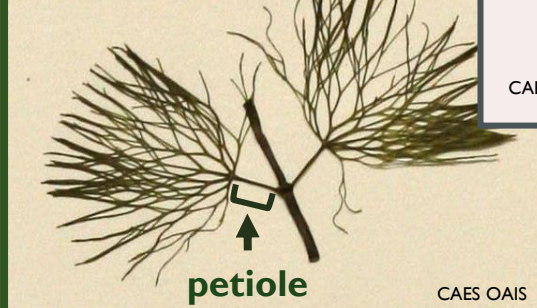
- Bright green, looks like a pipe cleaner
- Flowers: white, solitary
- Leaves: opposite, long petioles, fan-like



A. Smagula



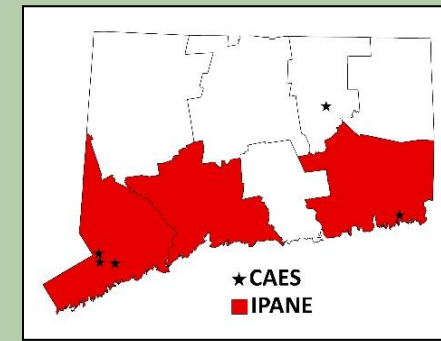
Opposite leaves



CAES OAIS

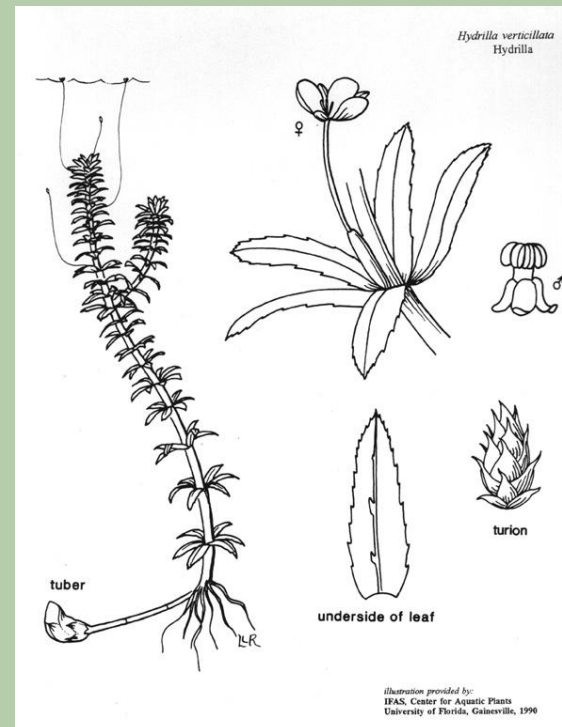
Hydrilla

Hydrilla verticillata



Key Info:

- Introduced to CT in 1989
- Spreads through turions, tubers, fragmentation
- Commonly confused with native waterweed



Hydrilla

Hydrilla verticillata

Key Features:

- Whorls of ≥ 5 leaves
- Submersed plant
- May have turions or tubers



Turions



Wandering Hydrilla “Monoecious Hydrilla”

- Whorls of 5
- Less robust
- Tubers
- Less turions
- Coventry Lake
- Silvermine River



Hydrilla verticillata subsp. *peregrina*

Northern Hydrilla “CT River Hydrilla”

- Whorls ≥ 5
- Very robust
- No tubers
- Abundant turions
- CT River, 10 other waterbodies*

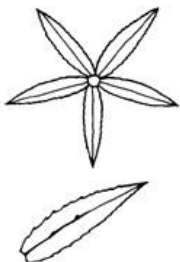
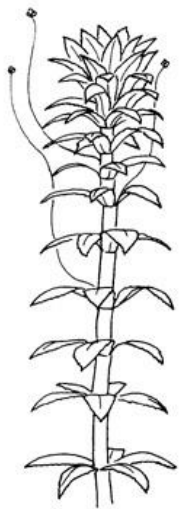


Hydrilla verticillata subsp. *lithuanica*

Commonly Confused Species

Copyright 1990 University of Florida
Center for Aquatic and Invasive Plants

HYDRILLA



ELODEA



EGERIA



Elodea species
Waterweeds
NATIVE



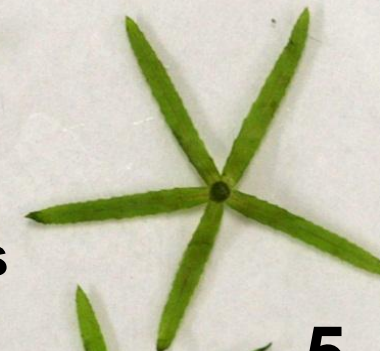
3

The more leaves
to a whorl, the
worse it gets.

Egeria densa
Brazilian
Waterweed
INVASIVE



4



5

Hydrilla verticillata
Hydrilla
INVASIVE

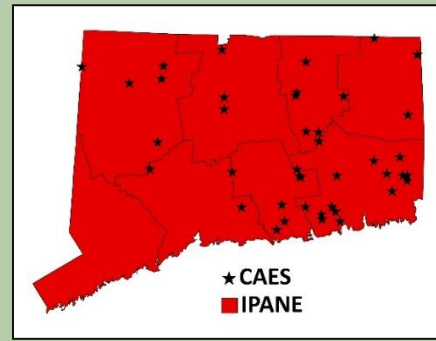


OAIS

Office of Aquatic Invasive Species
Connecticut Agricultural Experiment Station

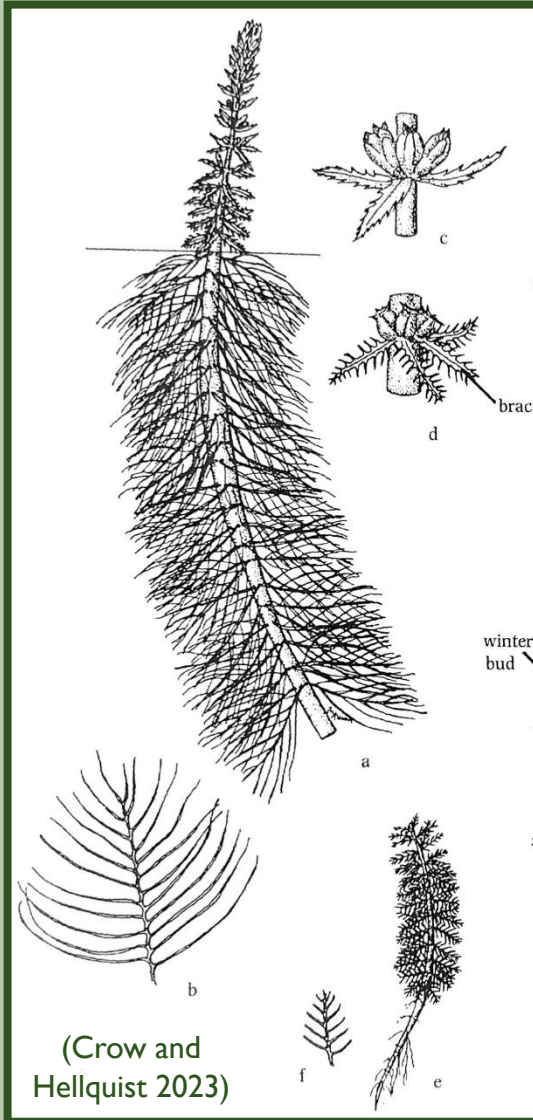
Variable-leaf watermilfoil

Myriophyllum heterophyllum



Key Info:

- Introduced to CT in 1932
- Variable appearance, sometimes reddish, sometimes green
- Spreads through fragmentation

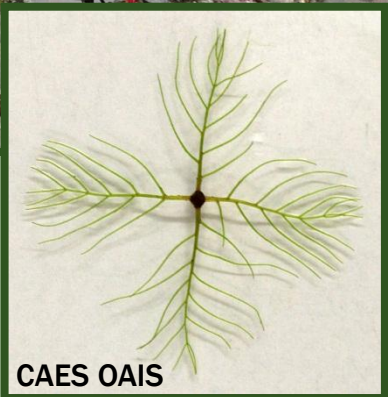


Variable-leaf watermilfoil

Myriophyllum heterophyllum

Key Features:

- Thick flower spike
- Red or green Stem
- Triangular leaf
- Leaves < 1 inch apart
- ≤ 11 leaflet pairs

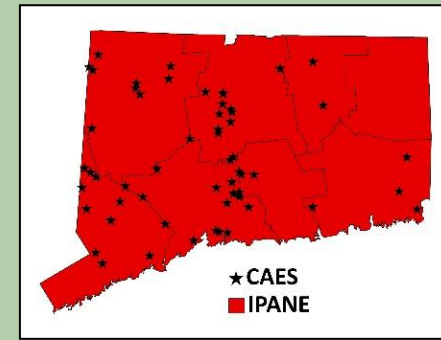
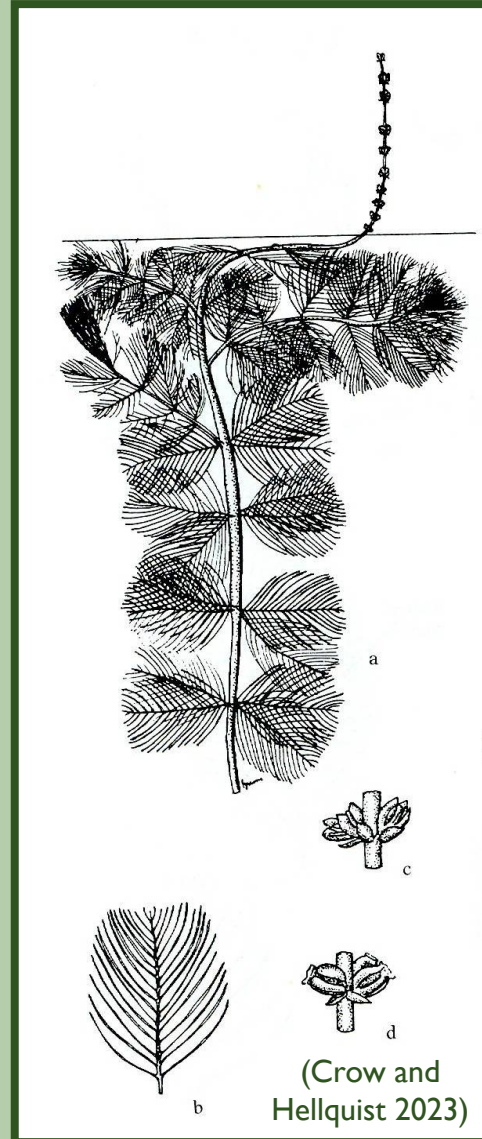


Eurasian watermilfoil

Myriophyllum spicatum

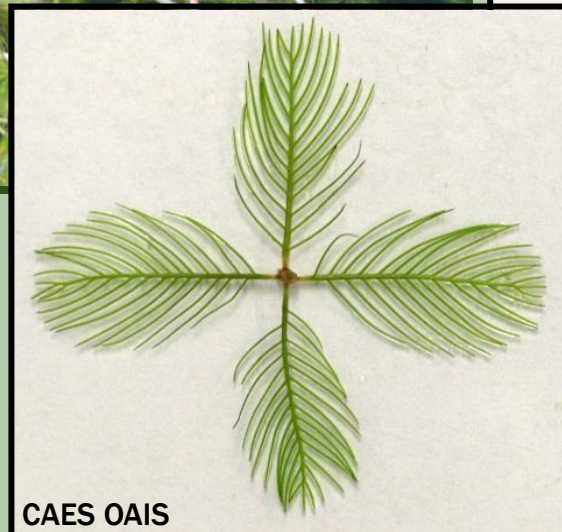
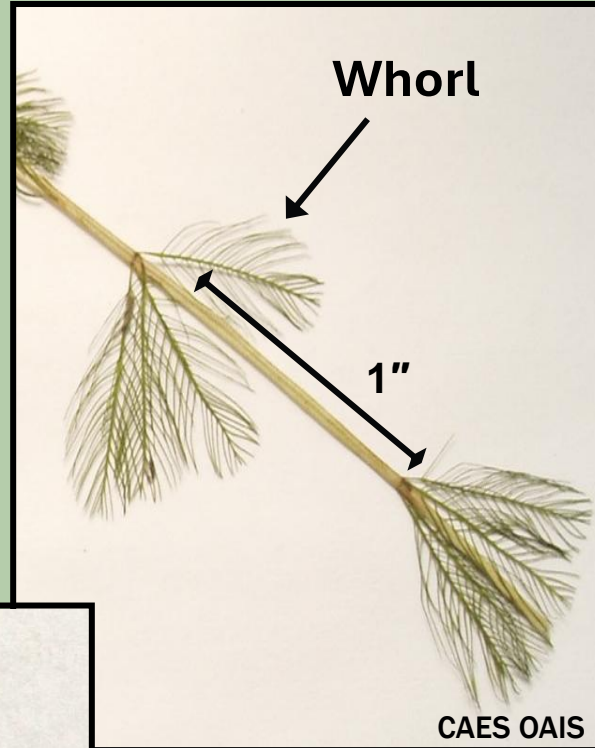
Key Info:

- Introduced to CT in 1979
- Most common invasive aquatic plant in CT and northern U.S.
- Spreads through fragmentation



Eurasian watermilfoil

Myriophyllum spicatum



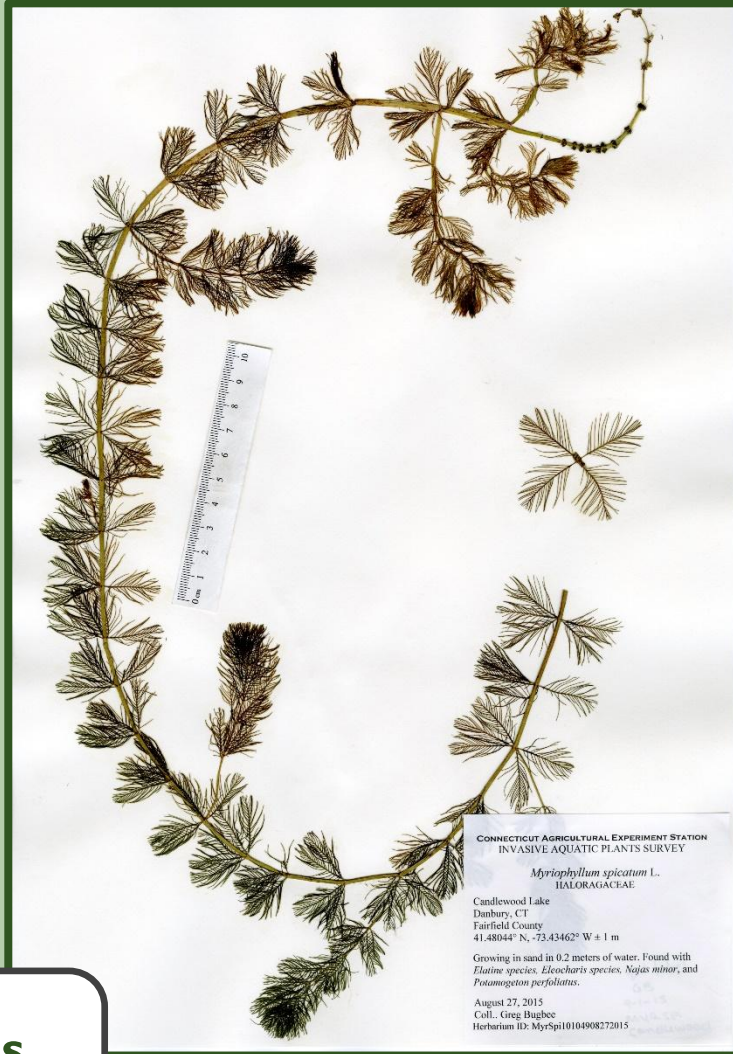
Key Features:

- Thin flower spike
- Rectangular leaf
- Leaves > 1 inch apart
- ≥ 12 leaflet pairs

Eurasian watermilfoil

Myriophyllum spicatum

- Thin flower spike
- Rectangular leaf
- Leaves > 1 inch apart
- ≥ 12 leaflet pairs

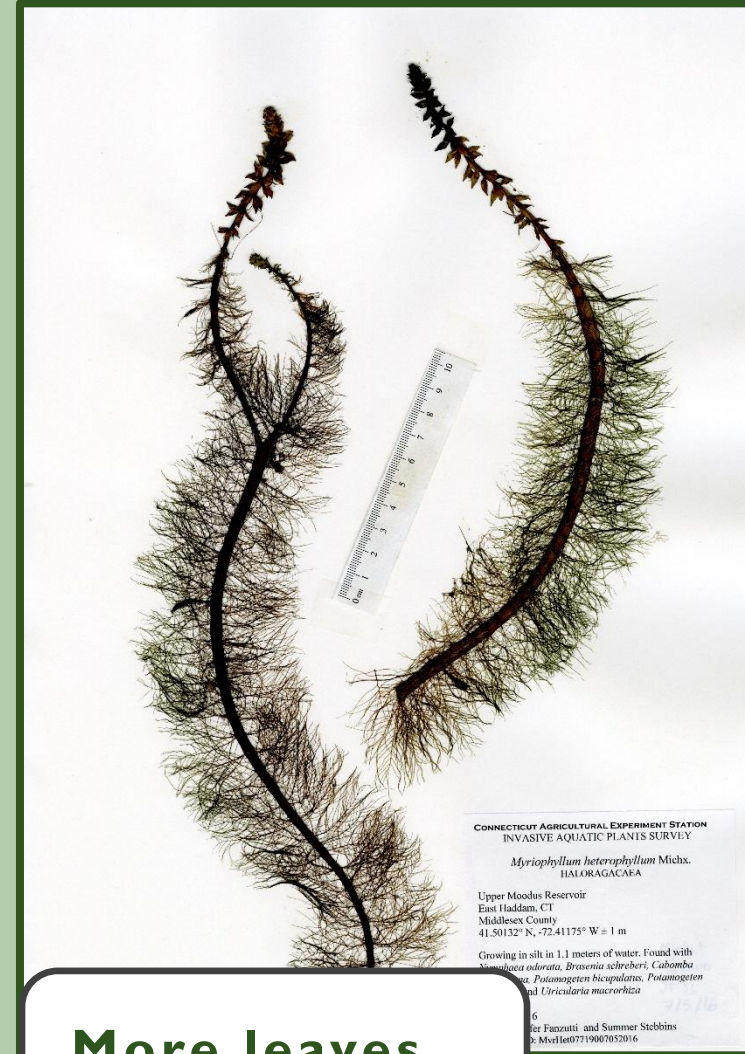


Fewer leaves,
more leaflets

Variable-leaf watermilfoil

Myriophyllum heterophyllum

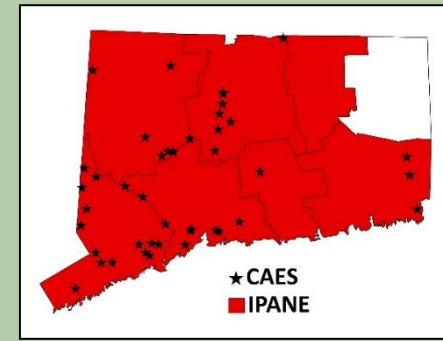
- Thick flower spike
- Triangular leaf
- Leaves < 1 inch apart
- ≤ 11 leaflet pairs



More leaves,
fewer leaflets

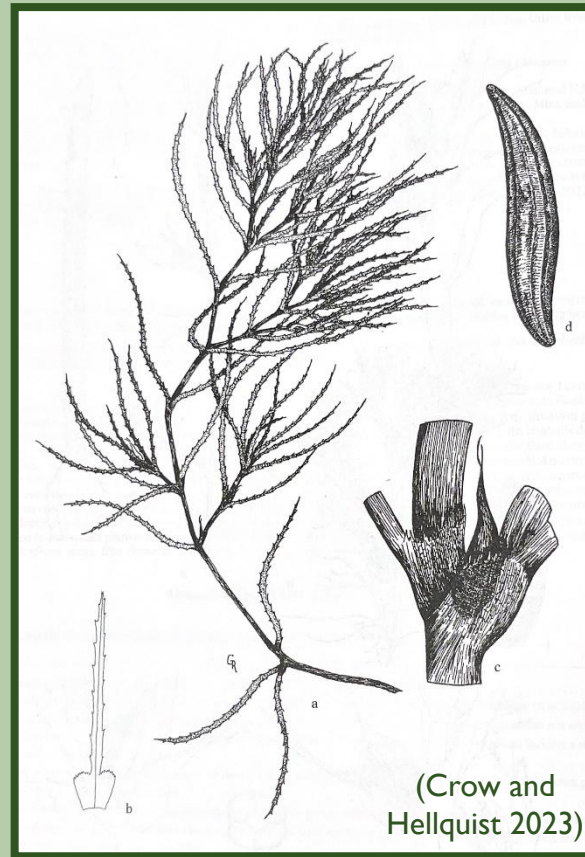
Minor naiad

Najas minor



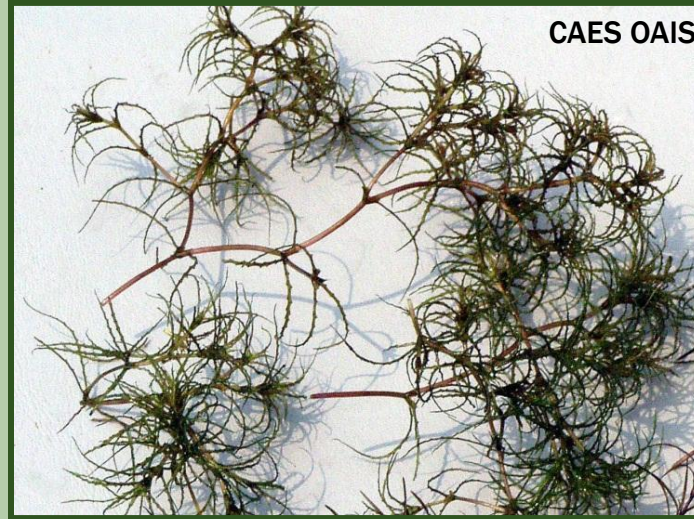
Key Info:

- Introduced to CT in 2004
- Annual, sprouts from seed
- Low-growing, often found in shallow waters



Minor naiad

Najas minor

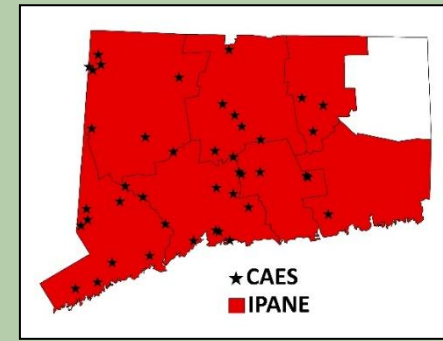


Key Features:

- Compact, bushy with highly branched stems
- Stiff, curled leaves
- Toothed leaves, visible to the naked eye

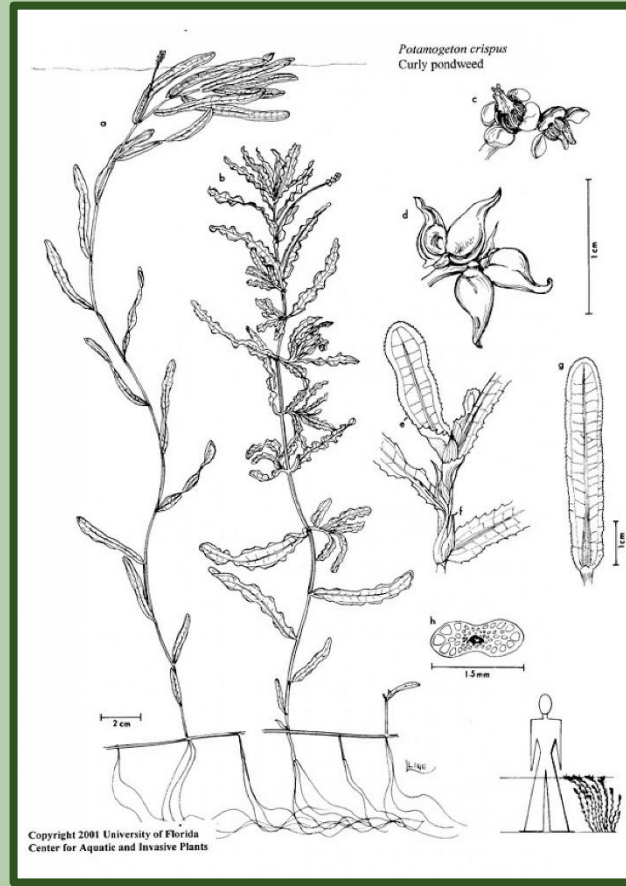
Curlyleaf pondweed

Potamogeton crispus



Key Info:

- Introduced to CT in 1943
- Annual, sprouts from turions
- Fully grown in May/June, dies back midsummer



Curlyleaf pondweed

Potamogeton crispus



Key Features:

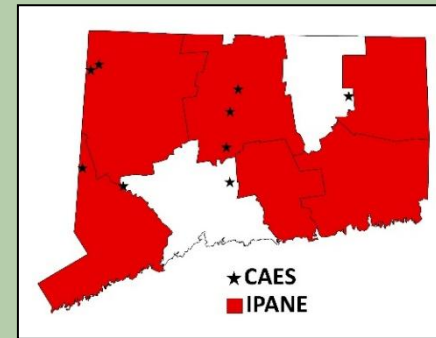
- Wavy, lasagna-like leaves
- Leaves alternate, no petioles
- Brown turions, like small pinecones

Turion



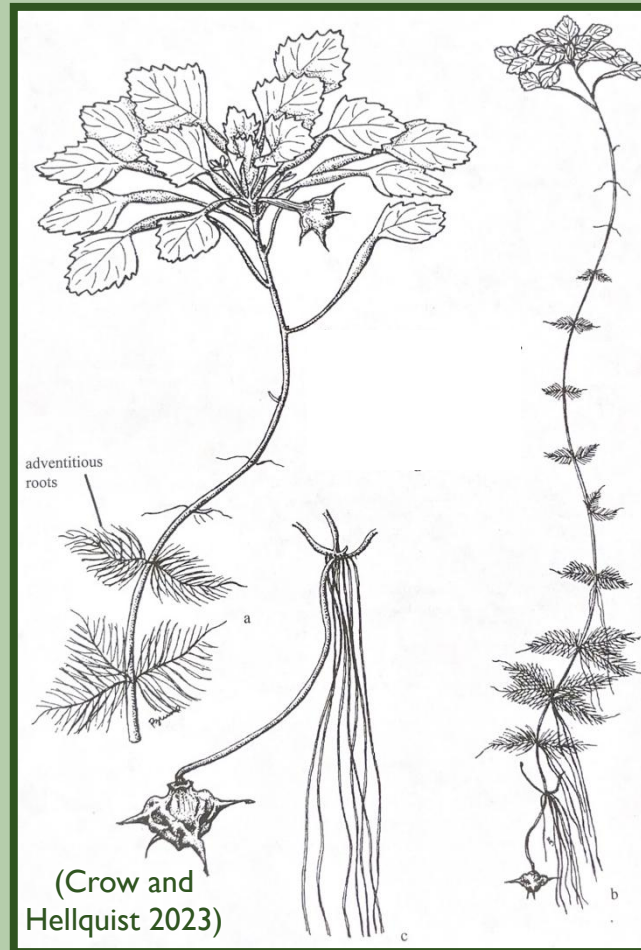
Water chestnut

Trapa natans



Key Info:

- Introduced to CT in 1998
- Annual, sprouts from nutlets
- One nutlet = 10-15 rosettes
- One rosette = 15-20 seeds
- One nutlet = 150-300 new nutlets



Water chestnut

Trapa natans

Key Features:

- Floating rosette
- Waxy, triangular leaves
- Feathery submersed leaves
- Small, white flower



Other Invasives



Brazilian waterweed
Egeria densa

- Whorls of 4 leaves
- White flowers with 3 petals



European waterclover
Marsilea quadrifolia

- Floating or emergent
- Clover-like leaves with 4 leaflets



Parrotfeather
Myriophyllum aquaticum

- Thick, red stem
- Blue-green feathery leaves

Other Invasives



Water hyacinth

Pontederia crassipes

- Free-floating with black, feathery roots
- Inflated petioles, light purple flower



American water lotus

Nelumbo lutea

- Emergent
- White flowers
- Seed head like the top of a watering can



Yellow floating heart

Nymphoides peltata

- Round, heart-shaped floating leaves
- Bright yellow flower



Pond water-starwort

Callitriche stagnalis

- Submersed plant with floating rosettes
- Spoon-shaped, opposite leaves

Emerging Invasives



**Swollen
bladderwort**
Utricularia inflata

- Alternate, submersed leaves
- Large inflated floating leaves
- Yellow flower



Spiny naiad
Najas marina

- Brittle, branched stems
- Conspicuous, brownish, prickly teeth

USING REMOTE SENSING TO MAP HYDRILLA

NDVI:
Normalized Difference Vegetation
Index

HEALTHY
VEGETATION REFLECTANCE

50% NIR 8% RED



NDVI = 0.72

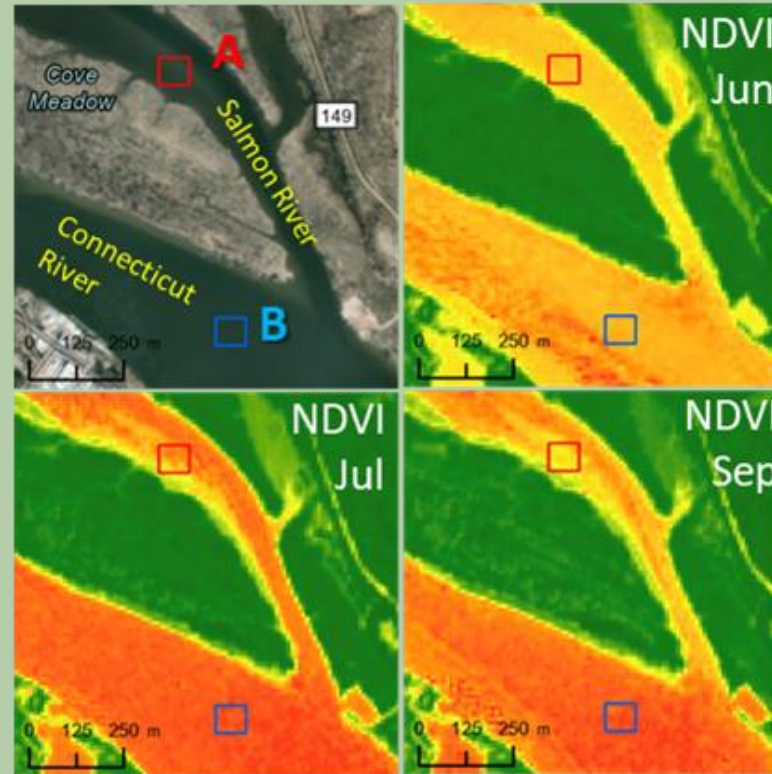
STRESSED
VEGETATION REFLECTANCE

40% NIR 30% RED



NDVI = 0.14

$$\text{NDVI} = \frac{\text{NIR} - \text{RED}}{\text{NIR} + \text{RED}}$$



A - Hydrilla present B - Hydrilla absent




First survey took three years!

A green, branching aquatic plant with small, pointed leaves, identified as hydrilla, is positioned on the left side of the slide.

The Potential for Classical Biological Control of Connecticut River Hydrilla

Dr. Jeremiah R. Foley IV

Office of Aquatic Invasive Species
Dept. of Environmental Science and Forestry
Connecticut Agricultural Experiment Station

A green, branching aquatic plant with small, pointed leaves, identified as hydrilla, is positioned on the right side of the slide.



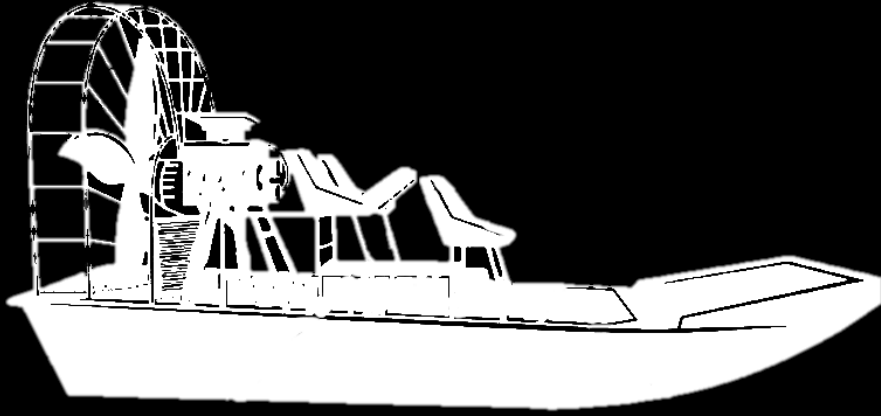
Estimated economic and health costs of invasive species in the United States have increased from \$2 billion in the 1960s to \$21 billion in the 2020s

Aquatic ecosystems are not immune to these types of invasions, and they are reported to cost the United States \$15 billion annually

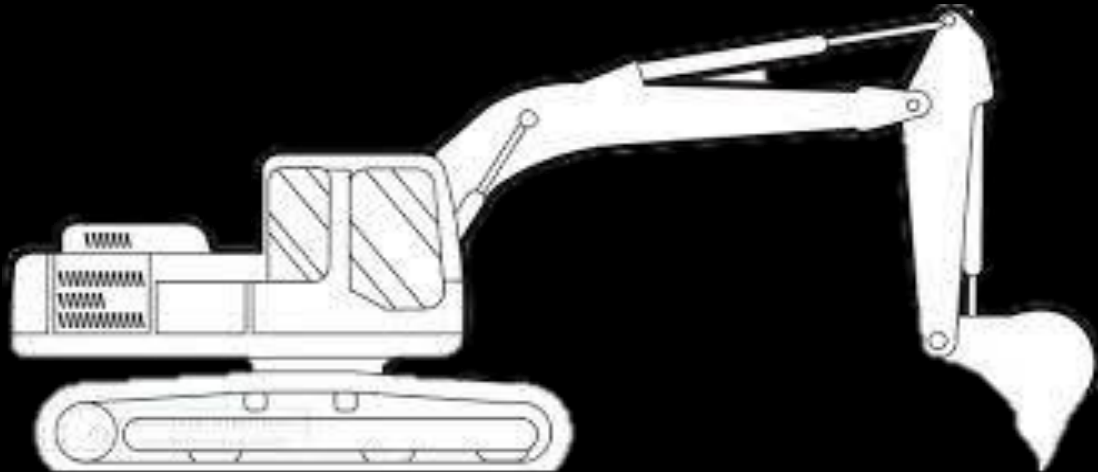
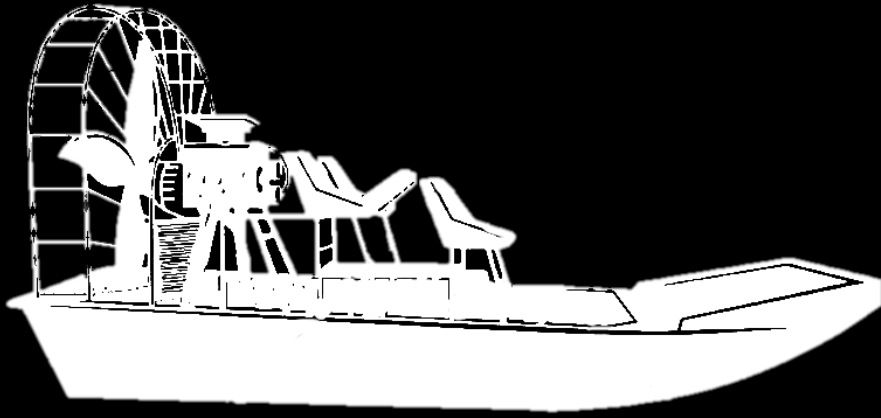
The northeastern United States is particularly vulnerable; the costs of invaded aquatic ecosystems in this region dominate the costs of terrestrial invasions

Management of AIS

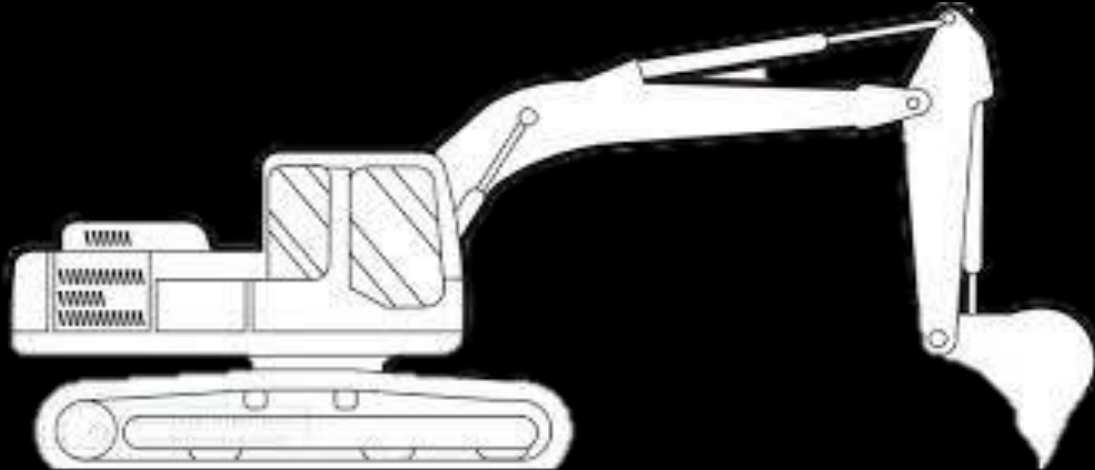
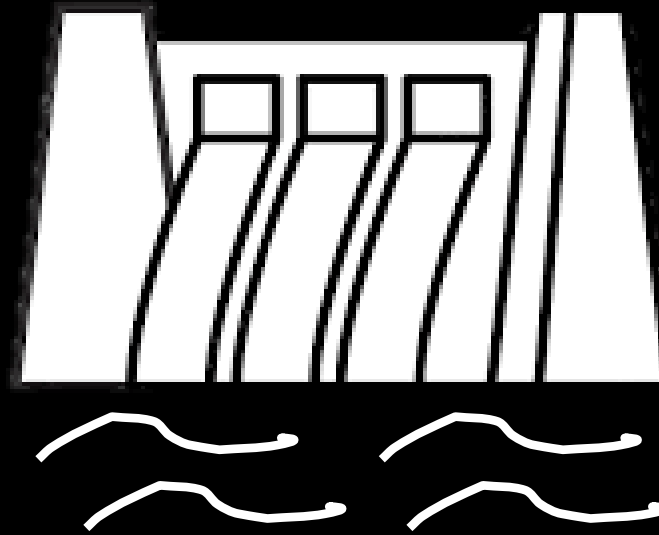
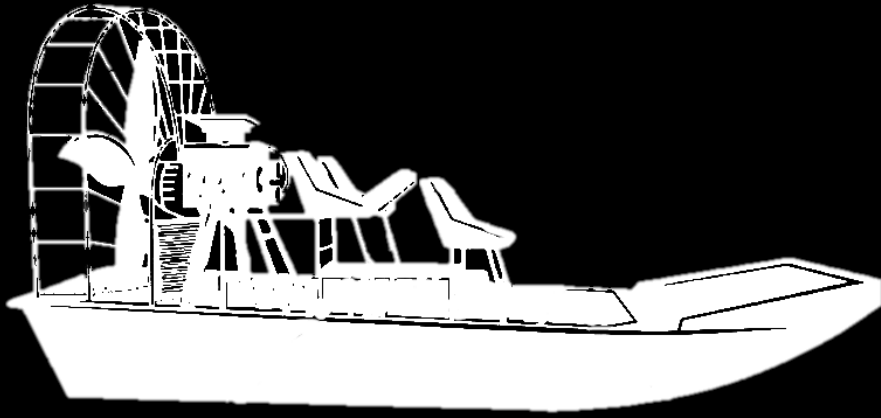
Management of AIS



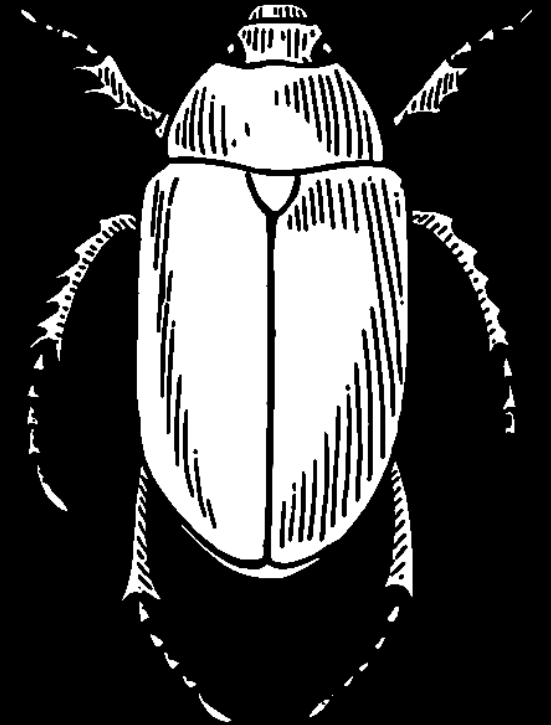
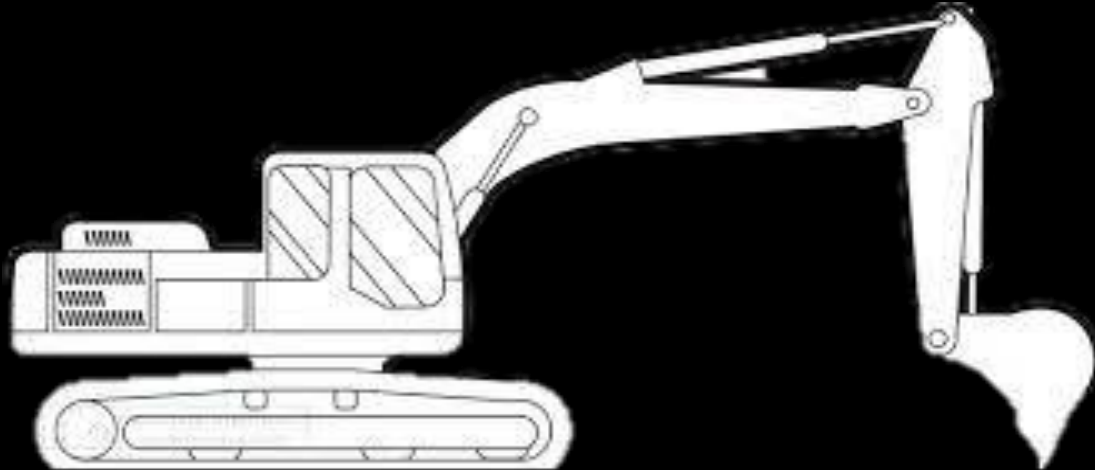
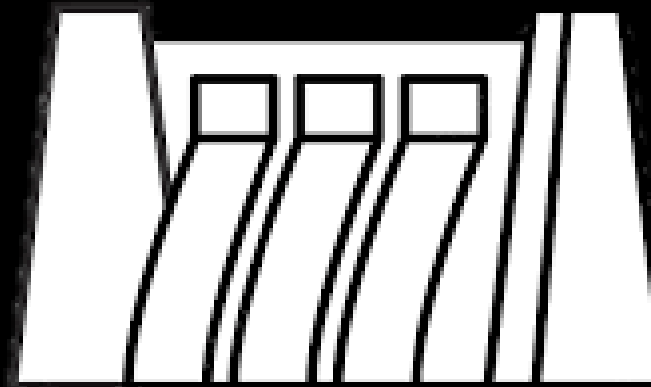
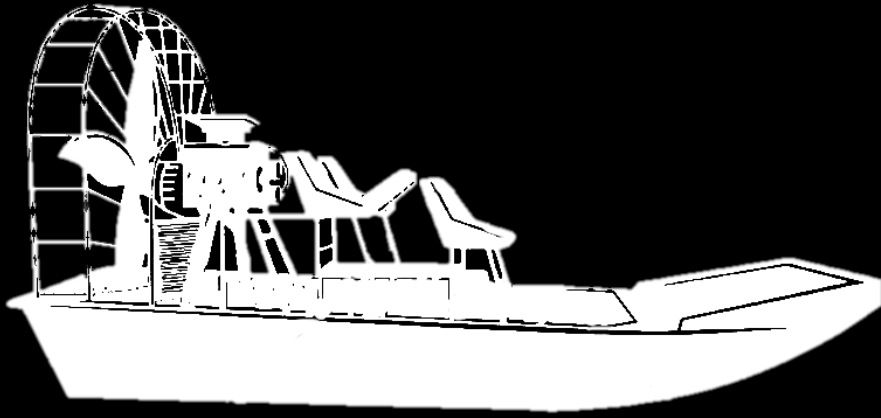
Management of AIS

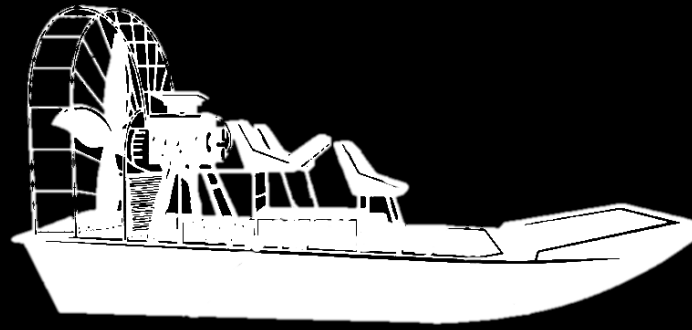


Management of AIS

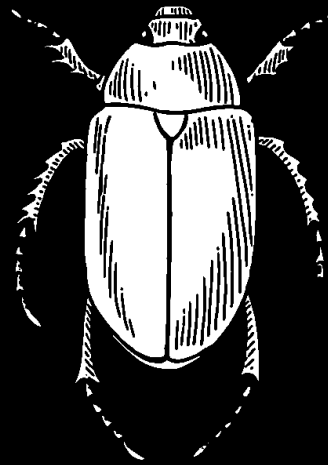
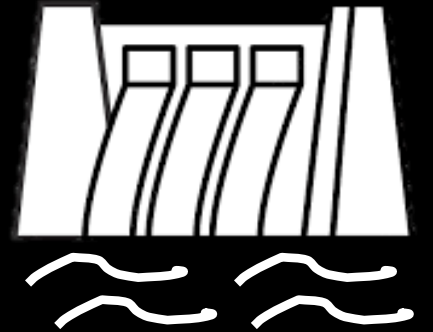
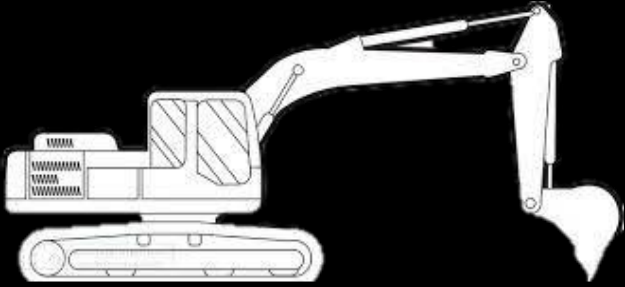


Management of AIS

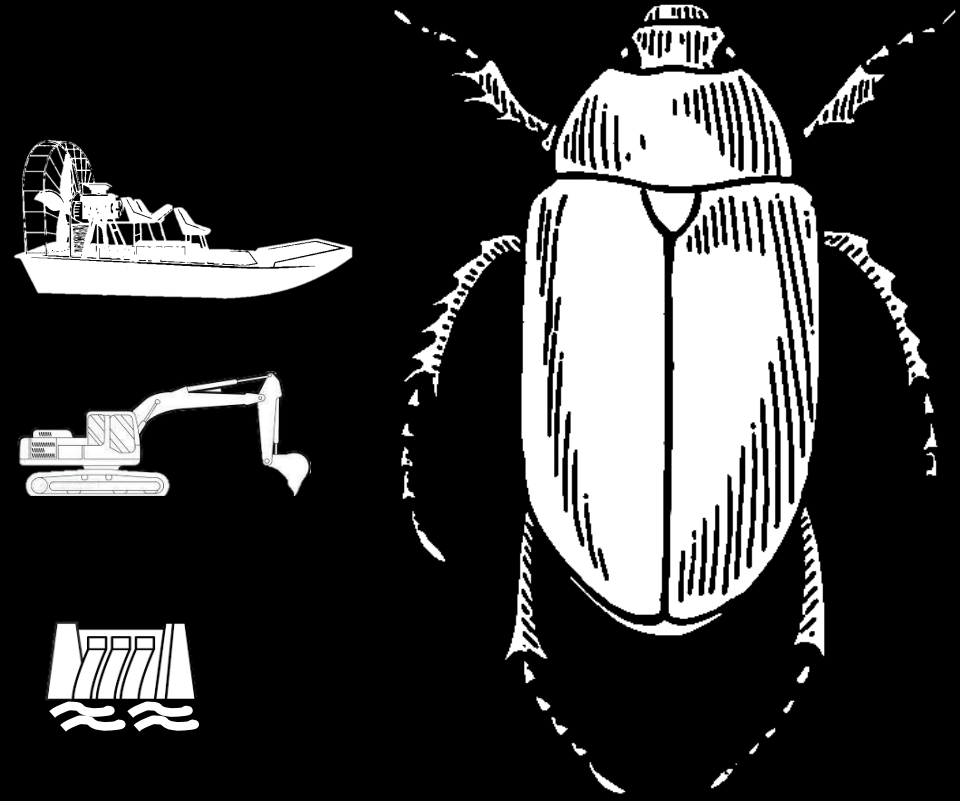




Integrated Pest Management



Biological Control



is the use of **living organisms**—such as predators, parasites, pathogens, or **herbivores**—to **manage** or suppress populations of unwanted species, like **invasive plants** and insects, to reduce their impact on **ecosystems**, agriculture, or **human activities**.

Biological Control



Biological Control

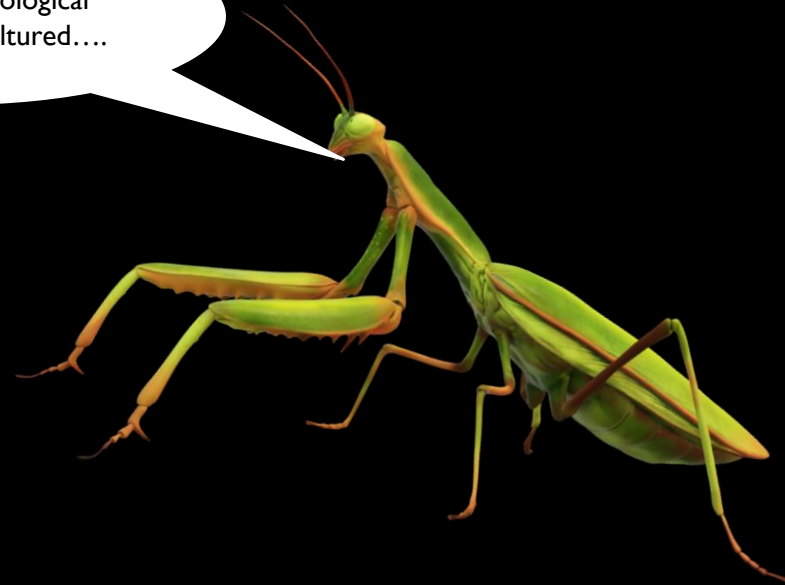


Biological Control

You're just a biological harvester. I'm cultured....



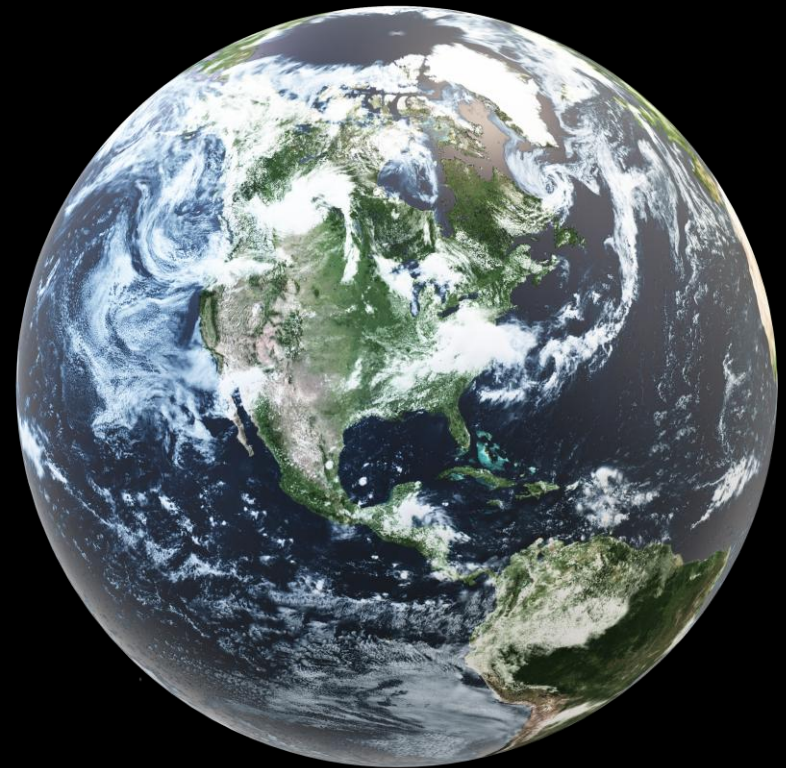
- Non-selective
- Long generation time
- Can not reproduce



- Highly selective
- Short generation time
- High reproductive output
- Redistribute



Overseas Research

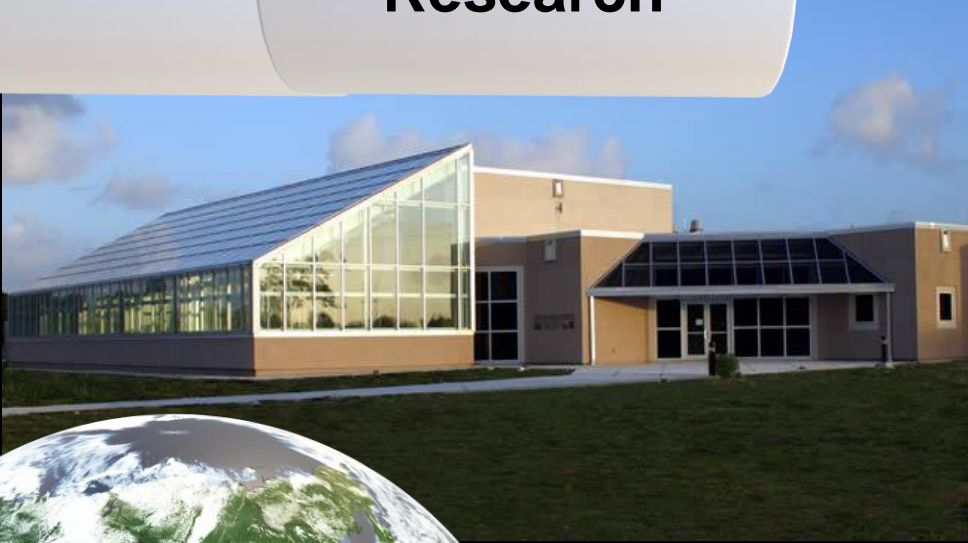


Overseas Research



**Overseas
Research**

**Quarantine
Research**



**Overseas
Research**

**Quarantine
Research**

Release



**Overseas
Research**

**Quarantine
Research**

Release

Establishment



**Overseas
Research**

**Quarantine
Research**

Release

Establishment

**Technology
Transfer**





**Overseas
Research**

**Quarantine
Research**

Release

Establishment

**Technology
Transfer**

**Overseas
Research**

**Quarantine
Research**

Release

Establishment

**Technology
Transfer**

**Foundational
Research**



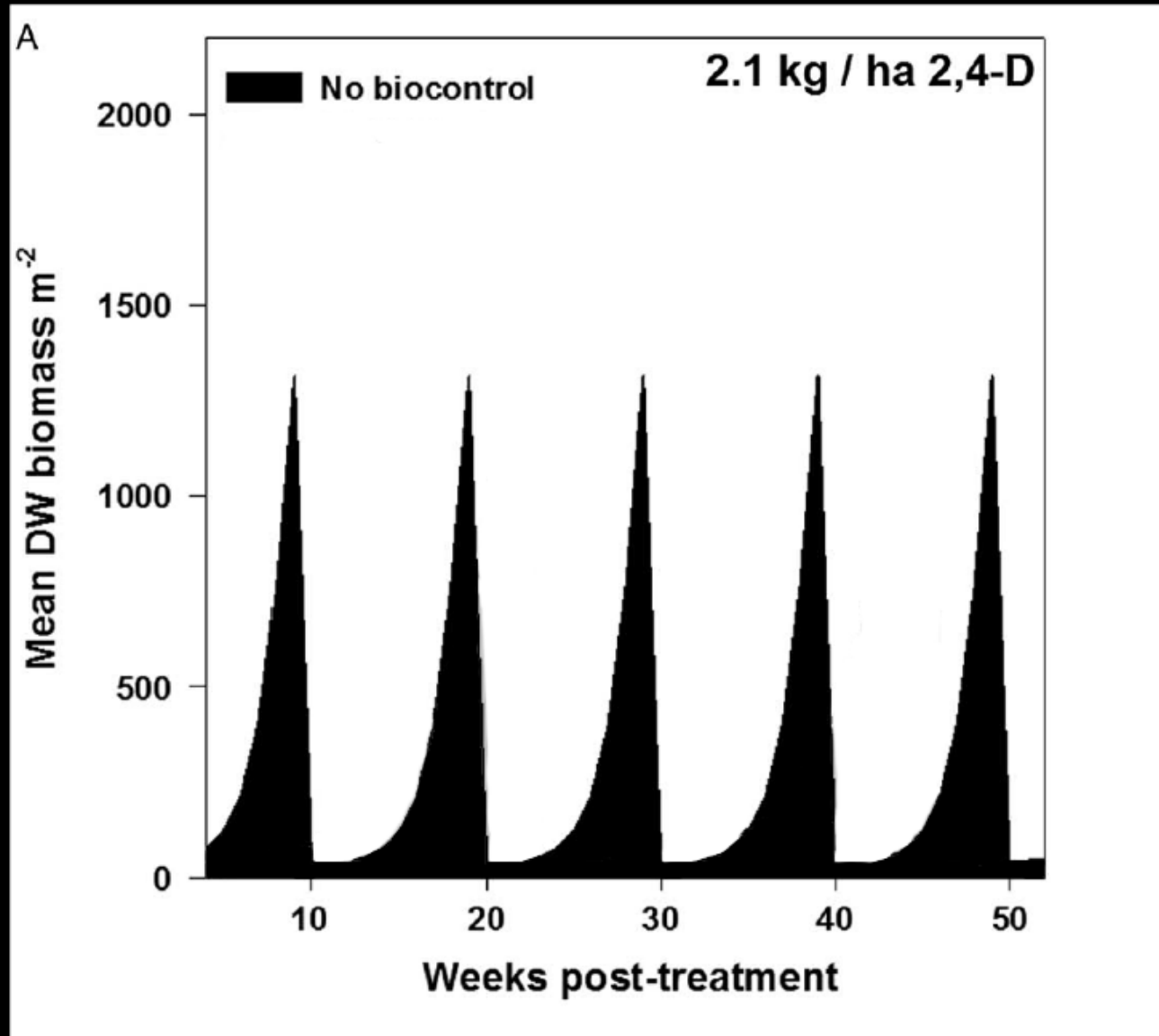
About

WATER HYACINTH WEEVILS *are* native to South America, were introduced to the U.S. in the 1970s to control invasive water. By feeding on the plant's leaves and stems, they reduce its growth, support native vegetation recovery, and lessen the need for chemical or mechanical controls

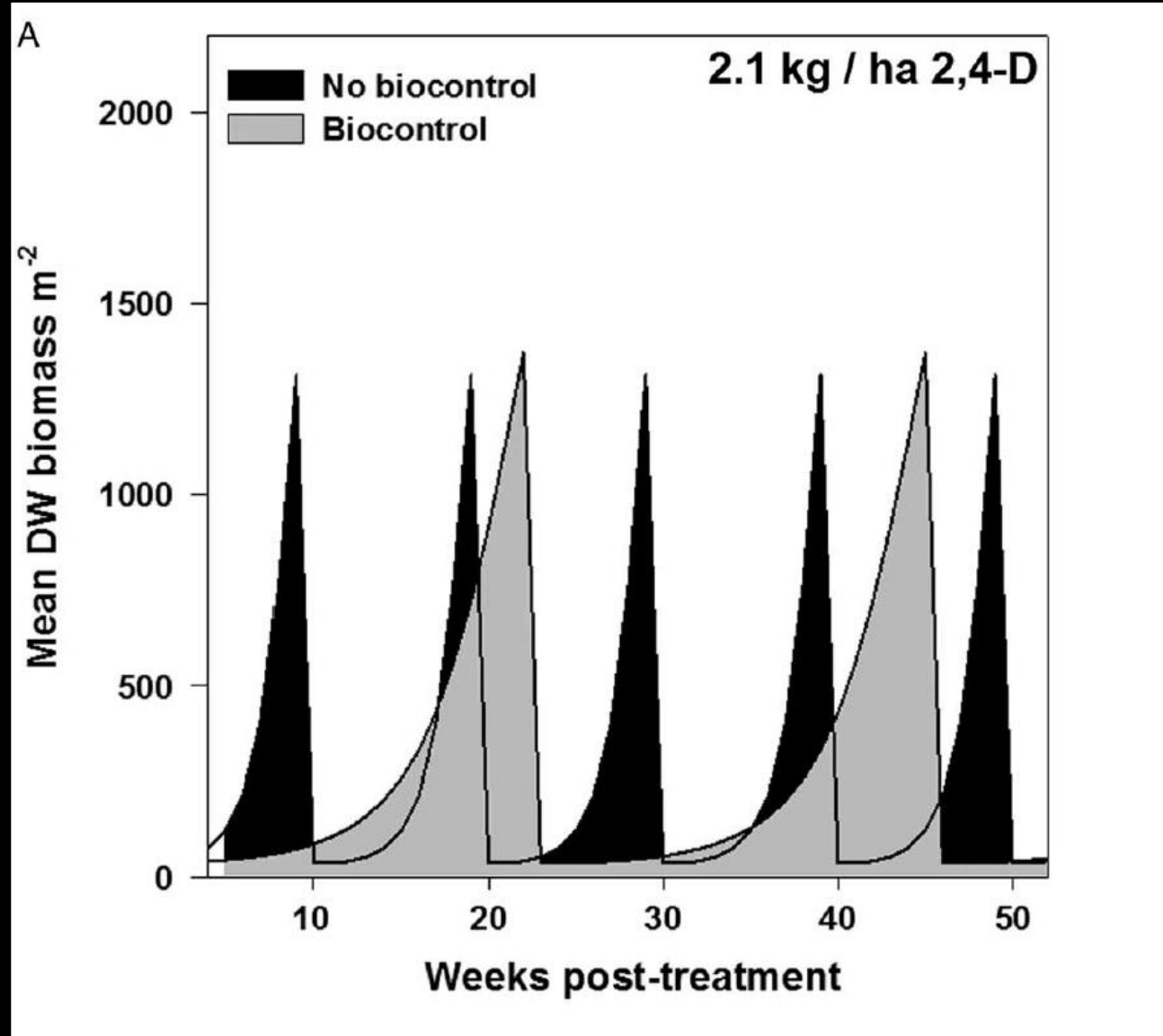




Waterhyacinth IPM: Biomass Reduction



Waterhyacinth IPM: Biomass Reduction







Approved and Released Agents for Hydrilla



Bagous affinis



Bagous hydrillae



Hydrellia balciunasi




Hydrellia pakistanae

Asian leaf-mining fly

(Hydrellia pakistanae)



- 
- Original host range testing on hydrilla

- Release

“...field densities of flies and the associated damage to hydrilla populations never reached more than 15 adults/m² and 15% of the whorls damaged, respectively, **about one-fifth the level estimated from cage studies that severely impact plant biomass**” - Wheeler and Center 2001

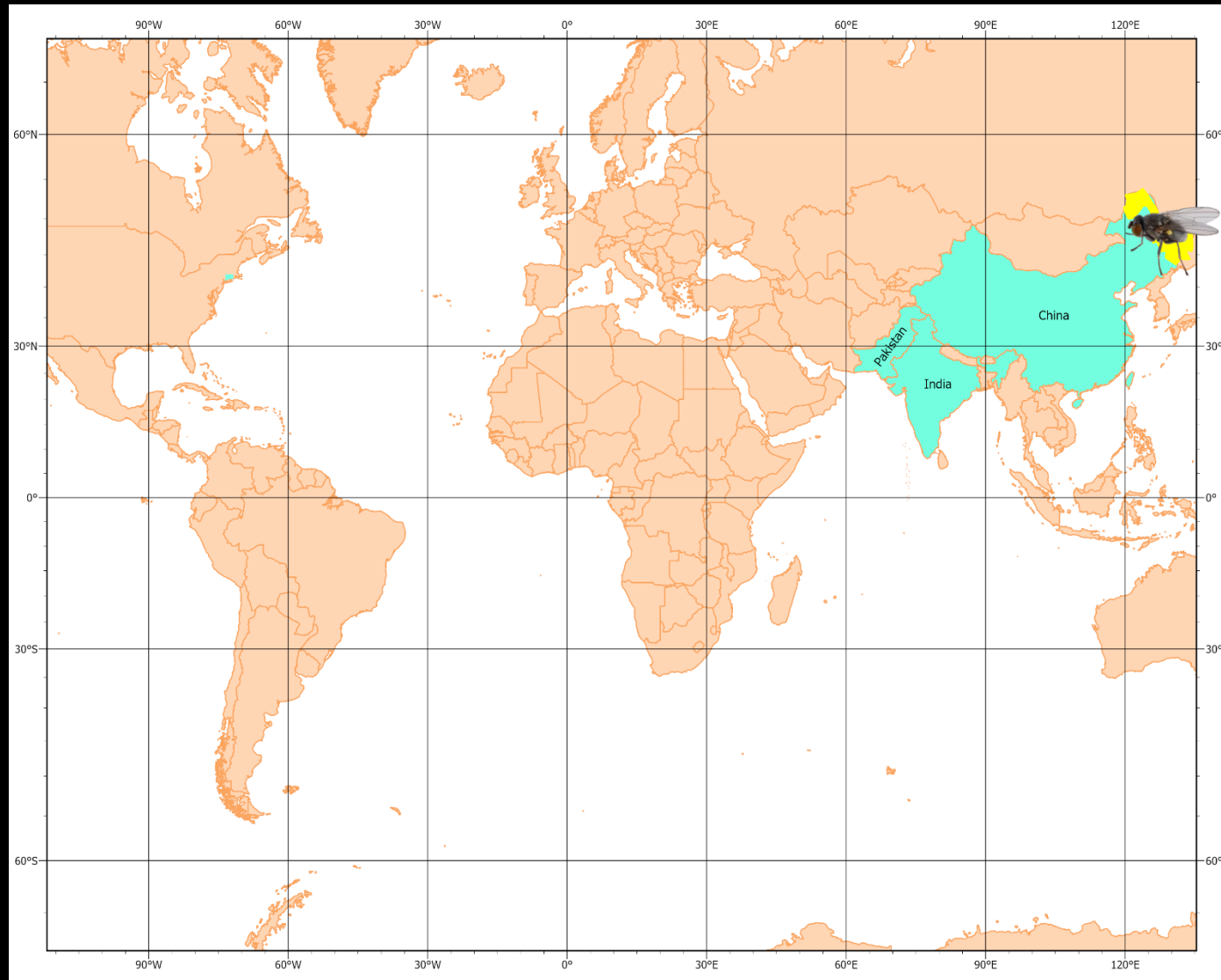
Wheeler and Center — Aquatic and Wetlands Development Support Facility, Vicksburg, Mississippi (1 million released from 1987-1997)



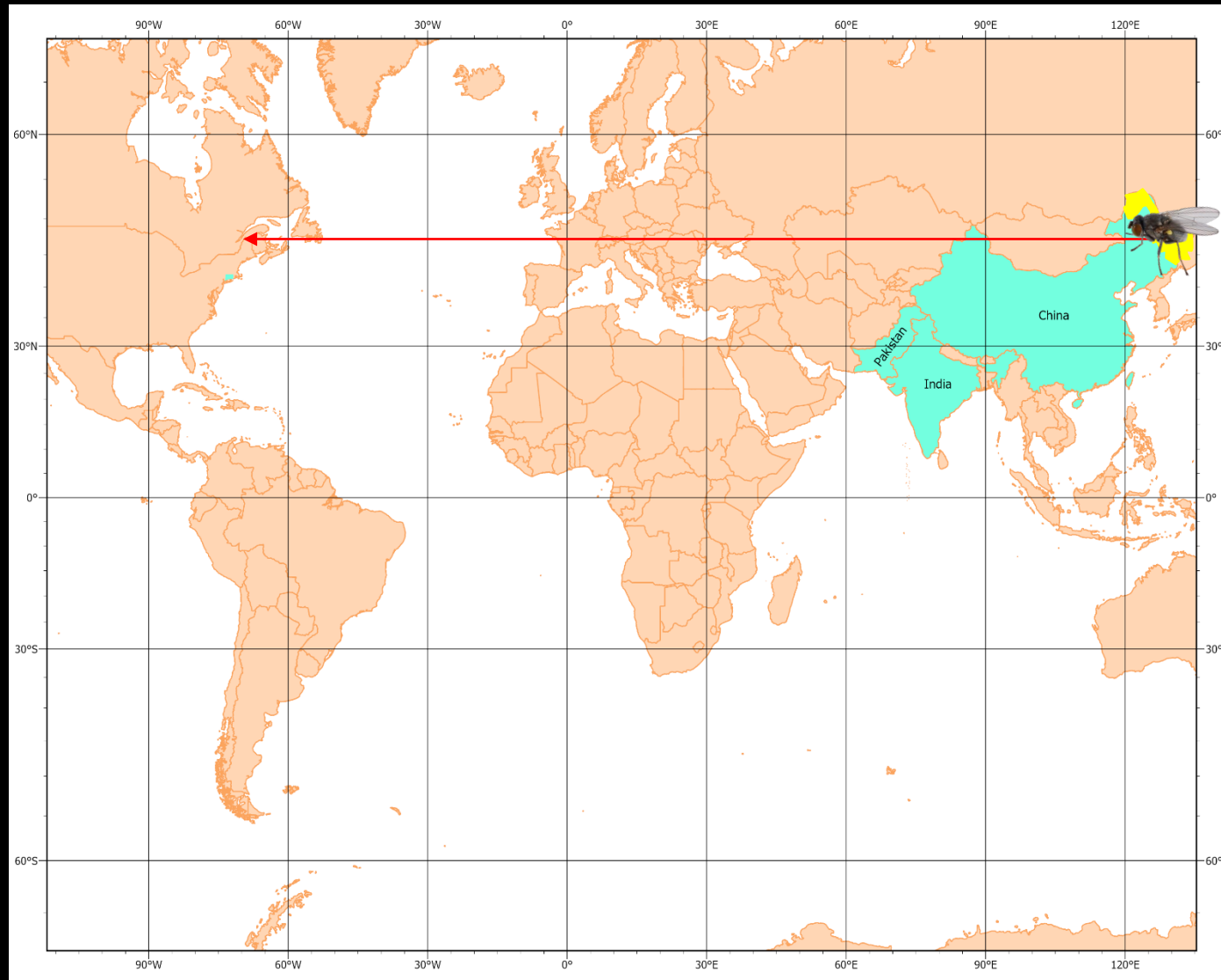




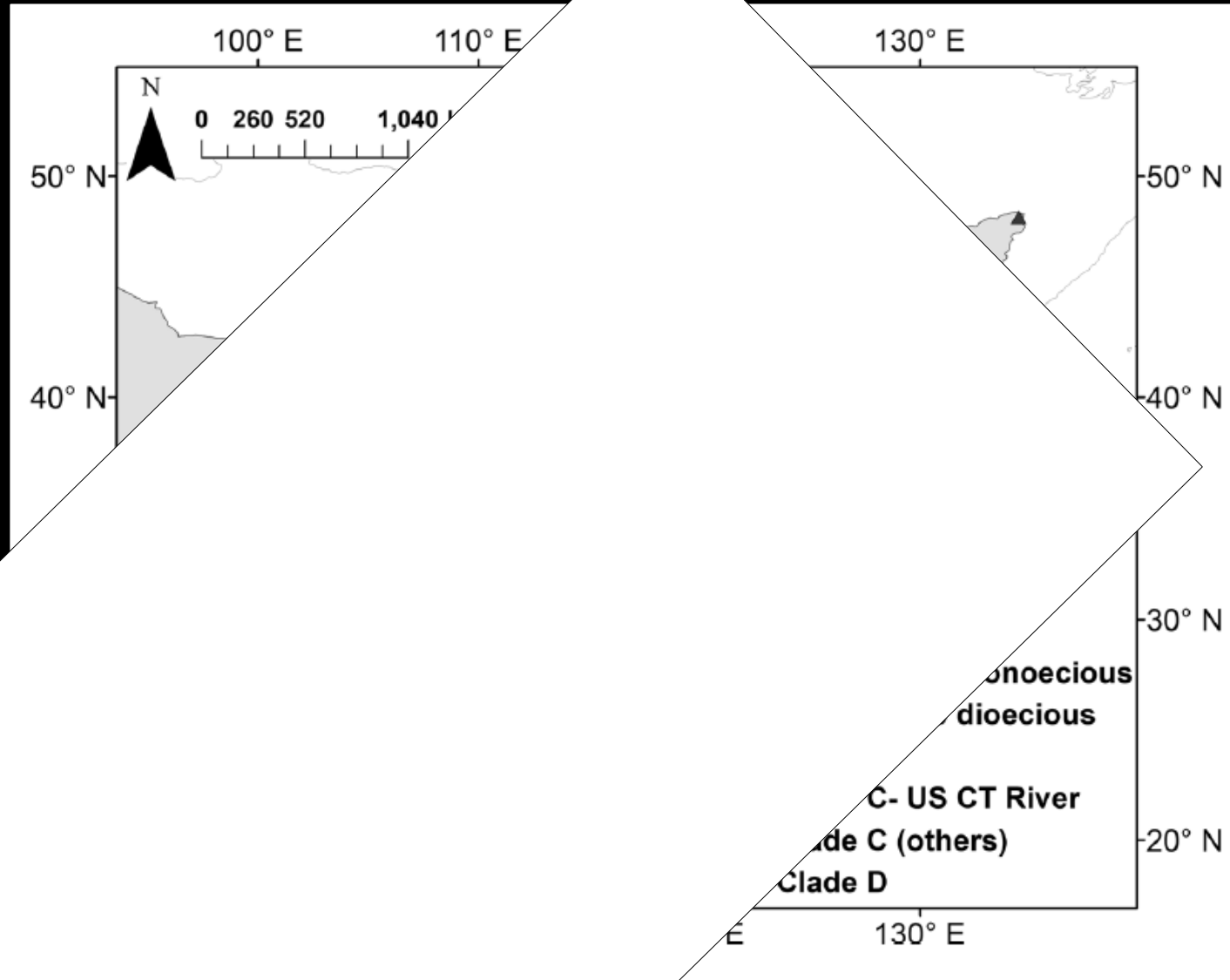
Asian leaf-mining fly

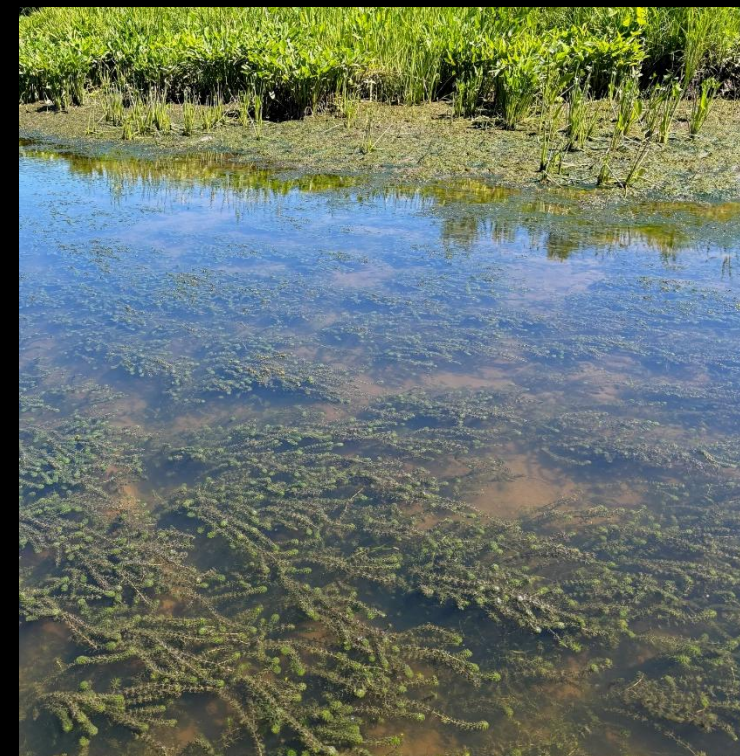
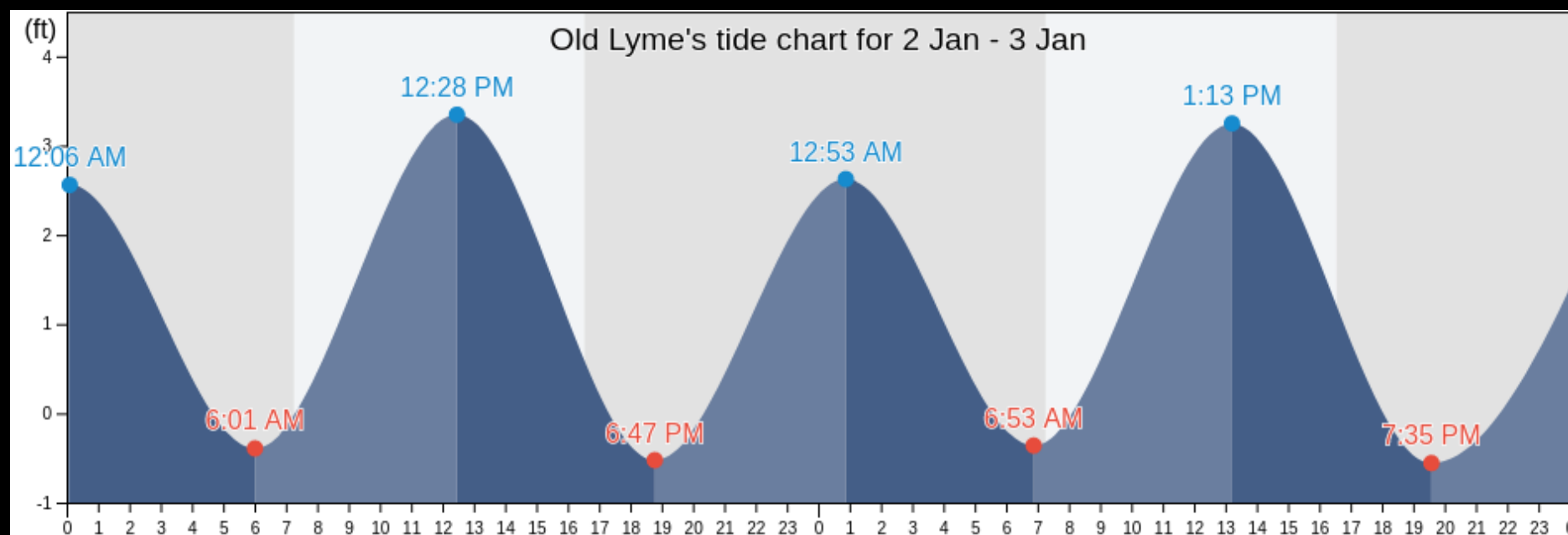


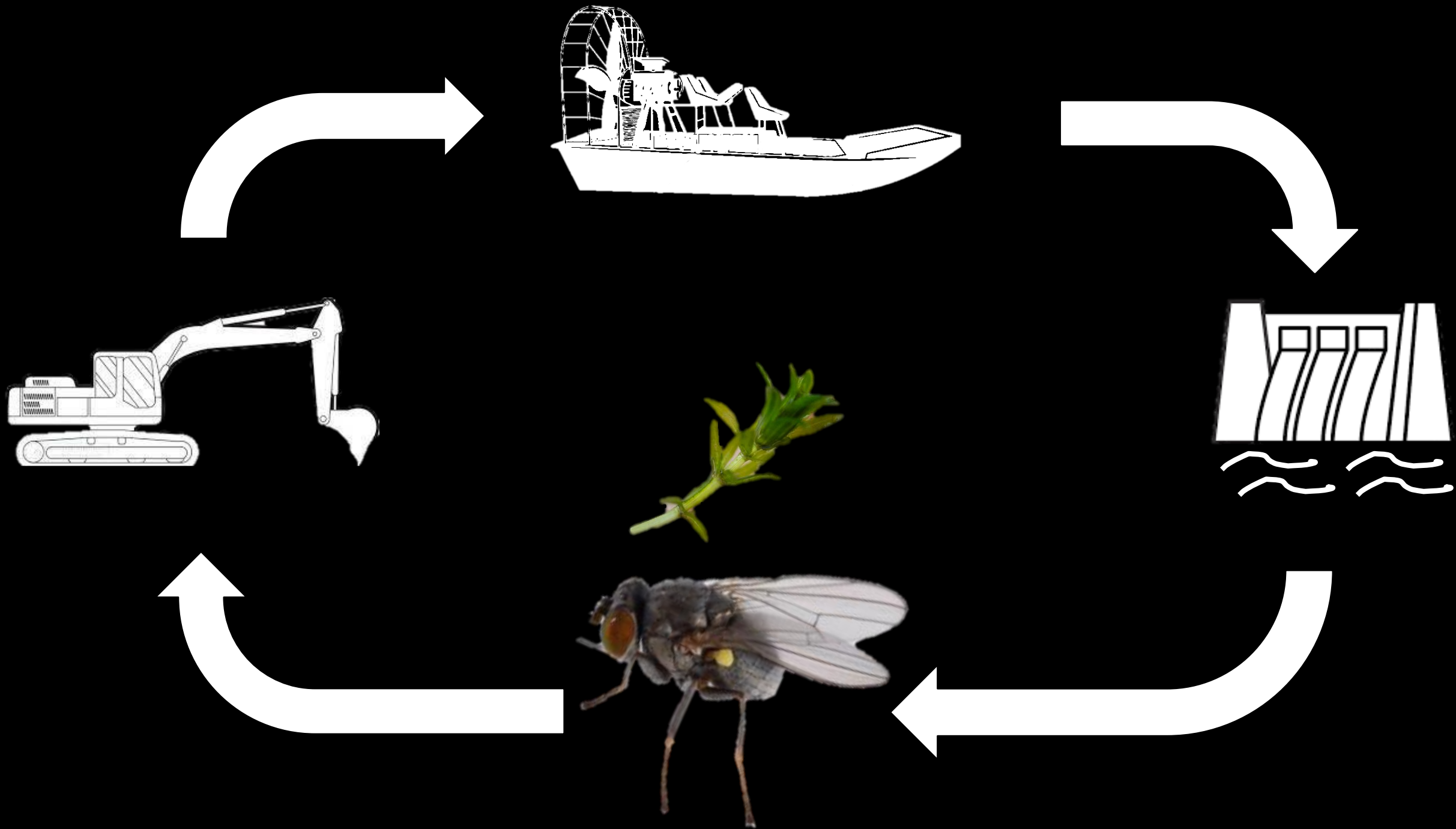
Asian leaf-mining fly



Asian leaf-mining fly







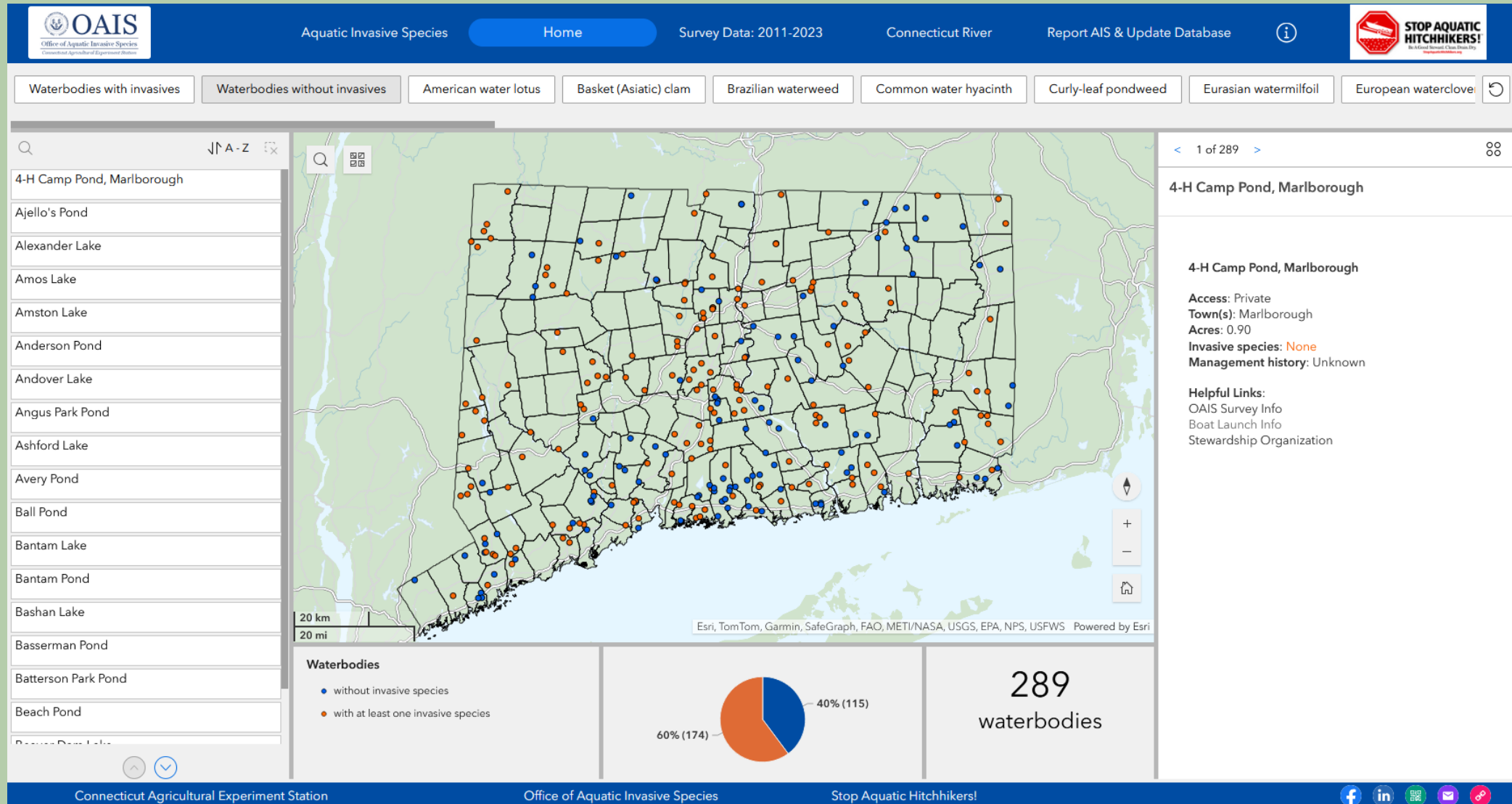


OAIS

Office of Aquatic Invasive Species

Connecticut Agricultural Experiment Station

New CT AIS Web App



Tablet & Mobile Designs

The tablet design features a blue header with the OAIS logo, a menu icon, an information icon, and a 'STOP AQUATIC HITCHHIKERS!' logo. The main content area has a grey header 'Report Aquatic Invasive Species or Update Database' and a paragraph explaining the survey's purpose. Below this is a 'Basic Information' section with a dropdown arrow. It contains three fields: 'Your name*' (with a '(First Last)' hint), 'Email address*' (with an envelope icon), and 'Phone number' (with a '(000) 000-0000' hint). Further down are two sections: 'Report invasive species sighting' and 'Update our database', each with a dropdown arrow. At the bottom is a 'General comments or suggestions' text area. The footer is blue with 'Connecticut Agricultural Experiment Station' and 'Office of Aquatic Invasive Species' text, and a small '1000' icon.

OAIS
Office of Aquatic Invasive Species
Connecticut Agricultural Experiment Station

Report Aquatic Invasive Species or Update Database

Use this survey to report a potential invasive species sighting or update our database with verified information about a waterbody. All responses will be verified by the Office of Aquatic Invasive Species team prior to being added to the database.

Basic Information ▾

Your name*
(First Last)

Email address*
✉

Phone number
(000) 000-0000

Report invasive species sighting ▾

Update our database ▾

General comments or suggestions

Connecticut Agricultural Experiment Station Office of Aquatic Invasive Species 1000

The mobile design has a blue header with the OAIS logo, a menu icon, an information icon, and a 'STOP AQUATIC HITCHHIKERS!' logo. The main content area has a grey header 'Report Aquatic Invasive Species o...' and a paragraph explaining the survey's purpose. Below this is a 'Basic Information' section with a dropdown arrow. It contains three fields: 'Your name*' (with a '(First Last)' hint), 'Email address*' (with an envelope icon), and 'Phone number' (with a '(000) 000-0000' hint). The footer is blue with 'Office of Aquatic Invasive Species' text and a share icon.

OAIS
Office of Aquatic Invasive Species
Connecticut Agricultural Experiment Station

Report Aquatic Invasive Species o...

Use this survey to report a potential invasive species sighting or update our database with verified information about a waterbody. All responses will be verified by the Office of Aquatic Invasive Species team prior to being added to the database.

Basic Information ▾

Your name*
(First Last)

Email address*
✉

Phone number
(000) 000-0000

Office of Aquatic Invasive Species



USACE Cost Share Funding

33 U.S. Code § 610

Control of aquatic plant growths
and invasive species

50/50 Cost Share

50% of cost is reimbursed
when project is complete

\$75 million

for each fiscal year
2021 through 2029

USACE – CAES

project partnership agreement
is currently in the works

Cost share funding should be available in 2026

*Federally funded projects **cannot** be reimbursed*



USACE Cost Share Funding



What types of projects does it cover?

AIS Prevention & Control

Project Examples

AIS Management

Herbicide Treatments

Harvesting

Benthic Blankets

Monitoring & Survey Work

Boat Wash Stations

Boat Inspectors

Outreach & Education

**All Aquatic
Invasive Species
but...**

**Hydrilla is a
USACE priority**





USACE Cost Share Funding

Project Reimbursement Process

1. Partners submit project proposals

- *Future* webpage on CAES OAIS website will include information and instructions

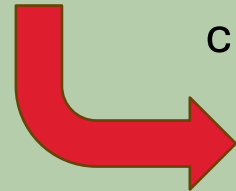


2. CAES OAIS submits list of projects to USACE every Jan/Feb



3. USACE approves projects for funding

- CAES OAIS sends confirmations to partner groups and creates contracts with partners



4. When project is complete, partners receive 50% reimbursement from CAES



Questions?



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GIS Specialist & Public Affairs

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Office of Aquatic Invasive Species

Department of Environmental Science & Forestry

Connecticut Agricultural Experiment Station

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