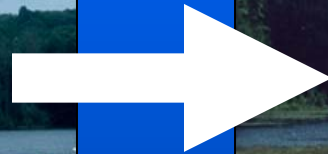


US EPA ARCHIVE DOCUMENT

Correlating Invasive Aquatic Plants With Hydrography, Water Chemistry and Boat Launches in Connecticut Lakes

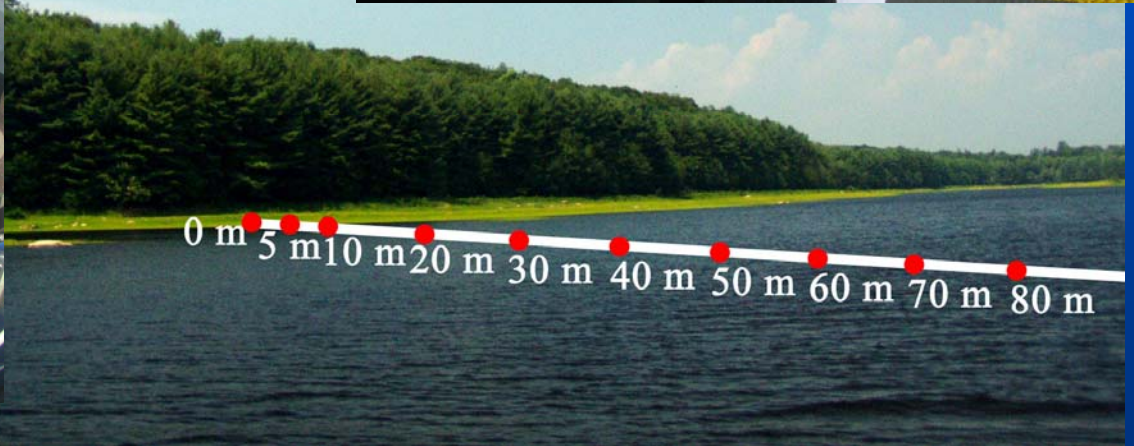


Greg Bugbee

Department of Soil and Water

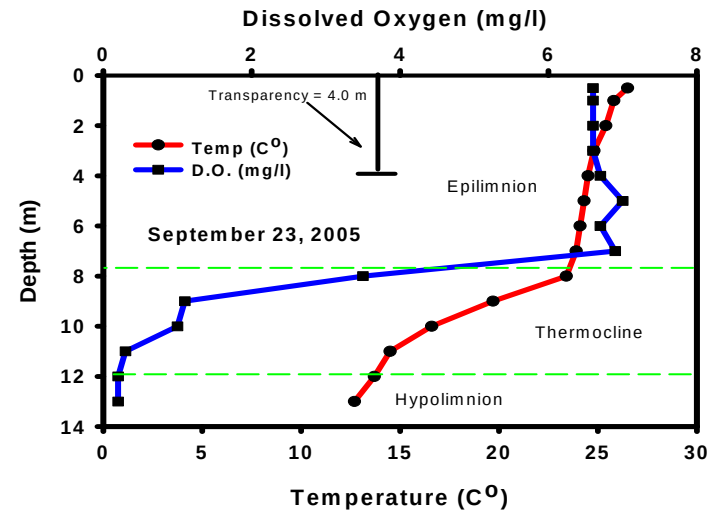
The Connecticut Agricultural Experiment Station

CAES IAPP Surveillance

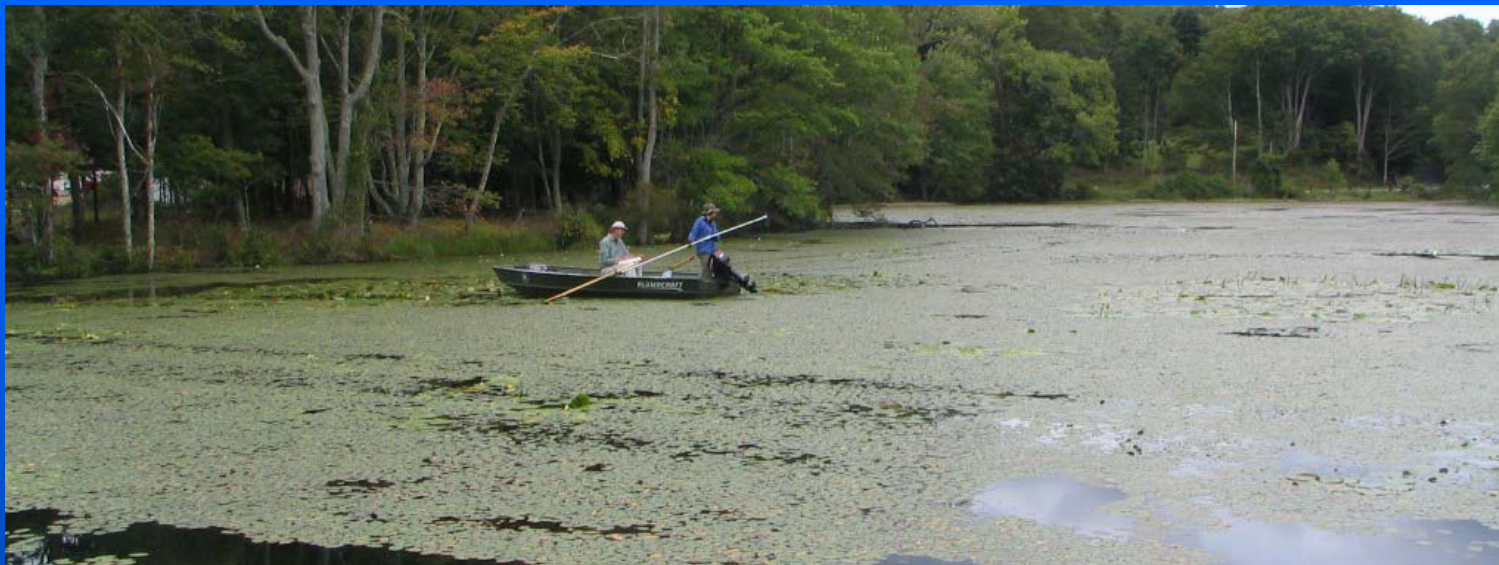


Water Chemistry

Transparency
Temperature
D. O.
pH
Alkalinity
Conductivity
Total P
TKN



Survey Results



- **137 water bodies surveyed**
 - 92 native aquatic plant species found
 - 11 invasive aquatic plant species found
 - 58 percent of the water bodies contained one or more invasive species

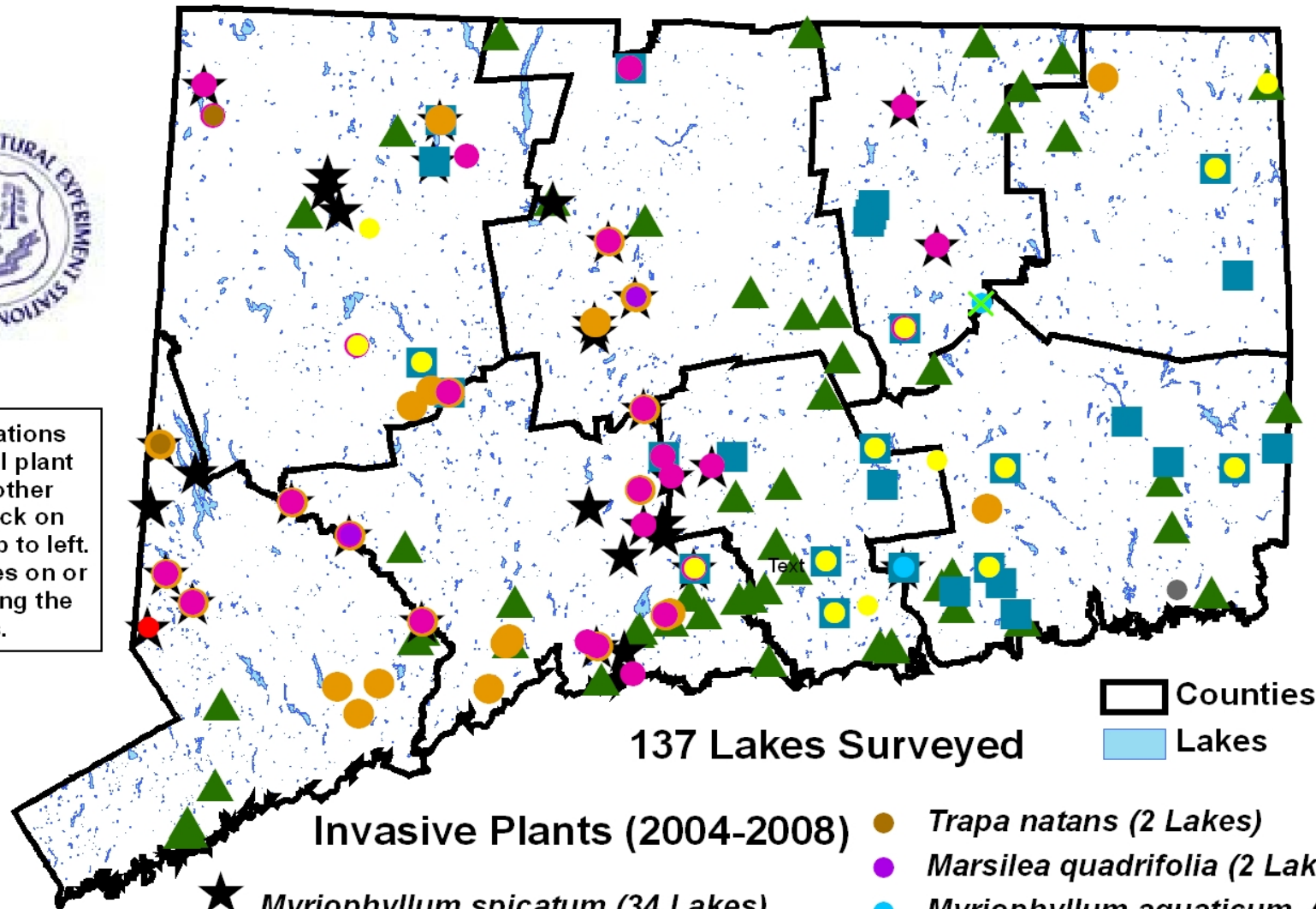
Locations of Invasive Aquatic Plants Found by CAES IAPP



To view locations of individual plant species or other features, click on "Layers" tab to left. Turn features on or off by clicking the "Eye" icons.



0 2.5 5 10 15 20 Miles



137 Lakes Surveyed

Counties
Lakes

Invasive Plants (2004-2008)

★ *Myriophyllum spicatum* (34 Lakes)

■ *Myriophyllum heterophyllum* (28 Lakes)

● *Potamogeton crispus* (26 Lakes)

● *Najas Minor* (26 Lakes)

● *Cabomba caroliniana* (15 Lakes)

● *Trapa natans* (2 Lakes)

● *Marsilea quadrifolia* (2 Lakes)

■ *Myriophyllum aquaticum* (2 Lakes)

● *Hydrilla verticillata* (1 Lake)

● *Eichhornia crassipes* (1 Lake)

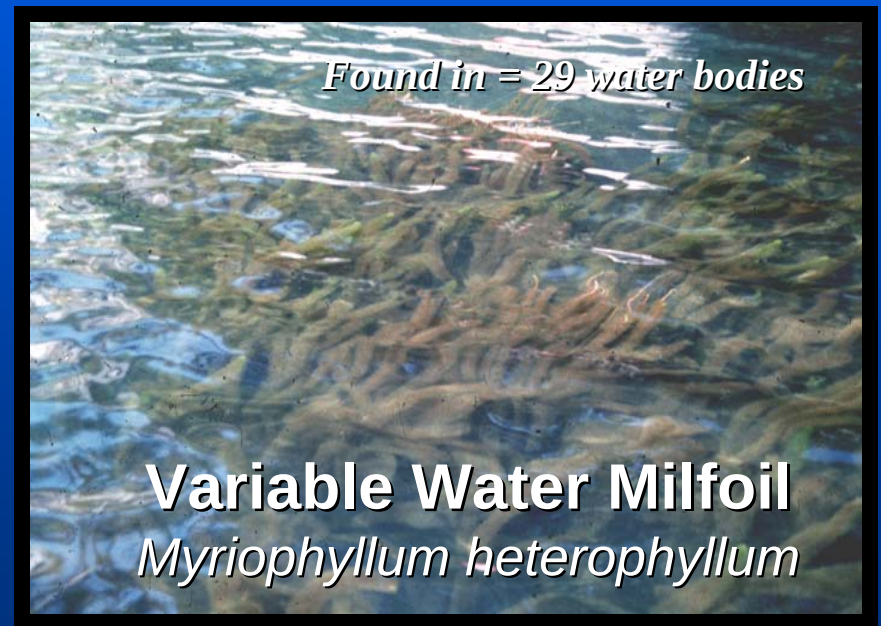
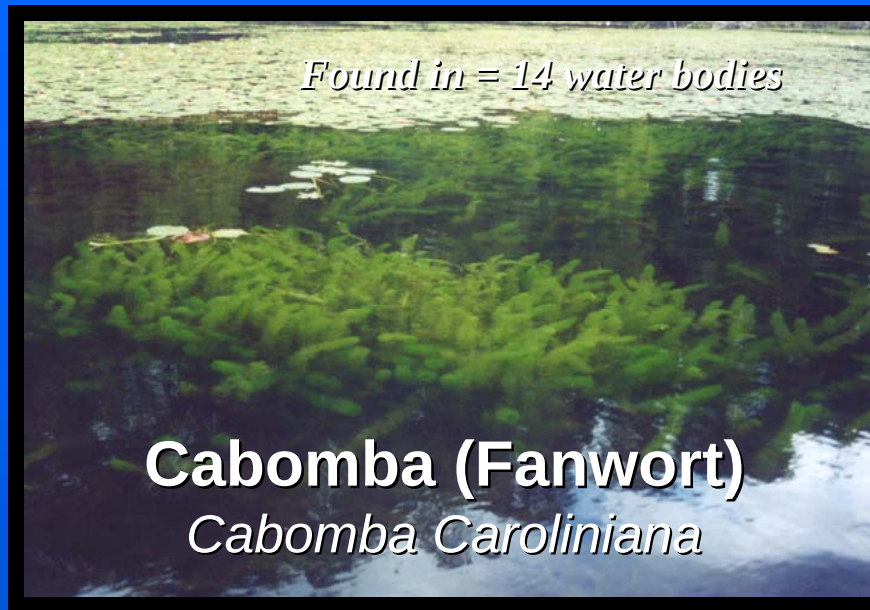
× *Nymphoides peltata* (1 Lake)

▲ No Inasives (53 Lakes)

The Importance of Knowing Why

- The extent and severity of invasions are likely limited by certain conditions
- If certain lakes can be identified as “high risk” precautions can be taken
- Control products can be better developed and utilized based on conditions preferred by the target plant





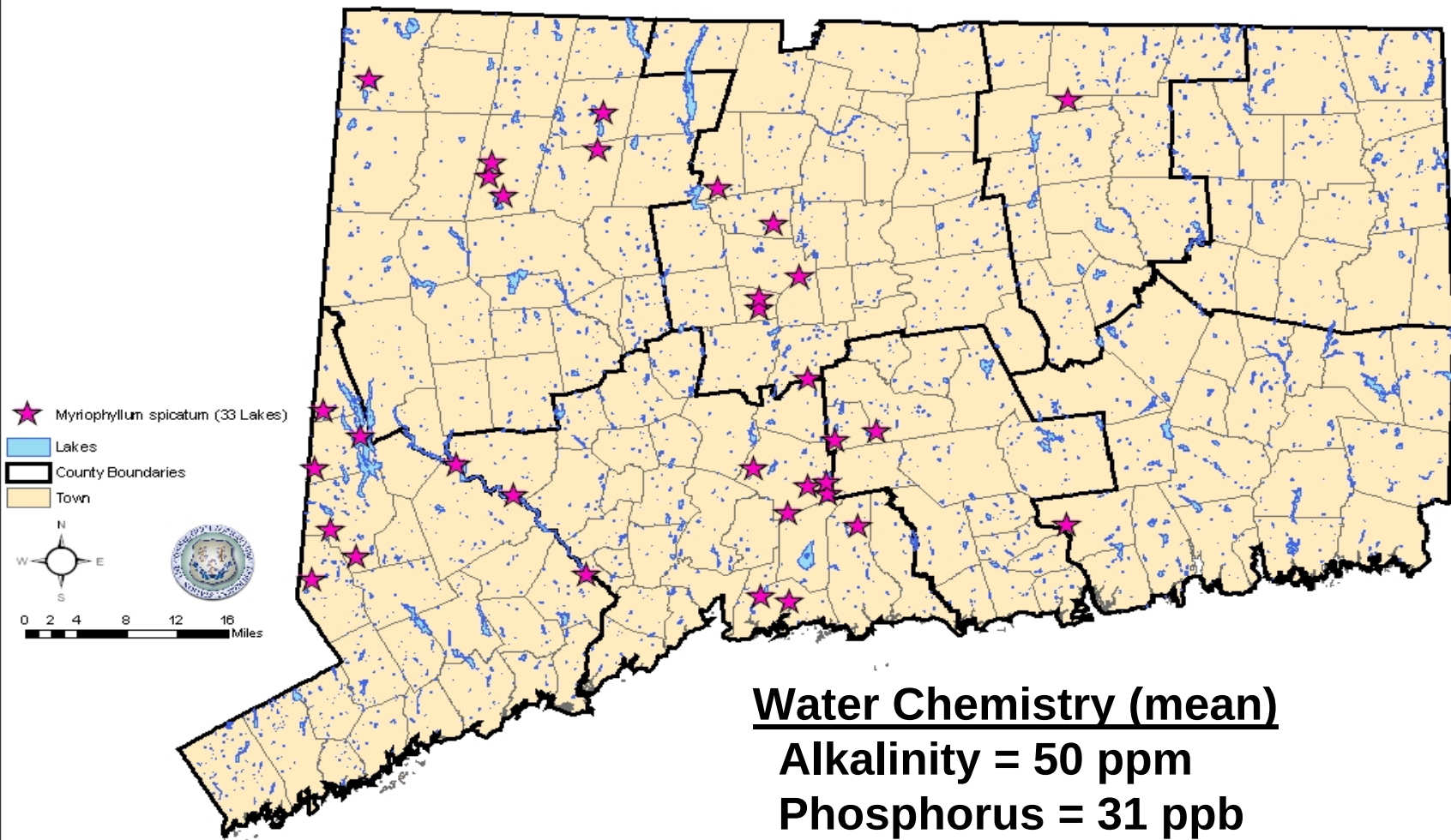
Found in = 25 water bodies

Curly Leaf Pondweed
Potamogeton crispus

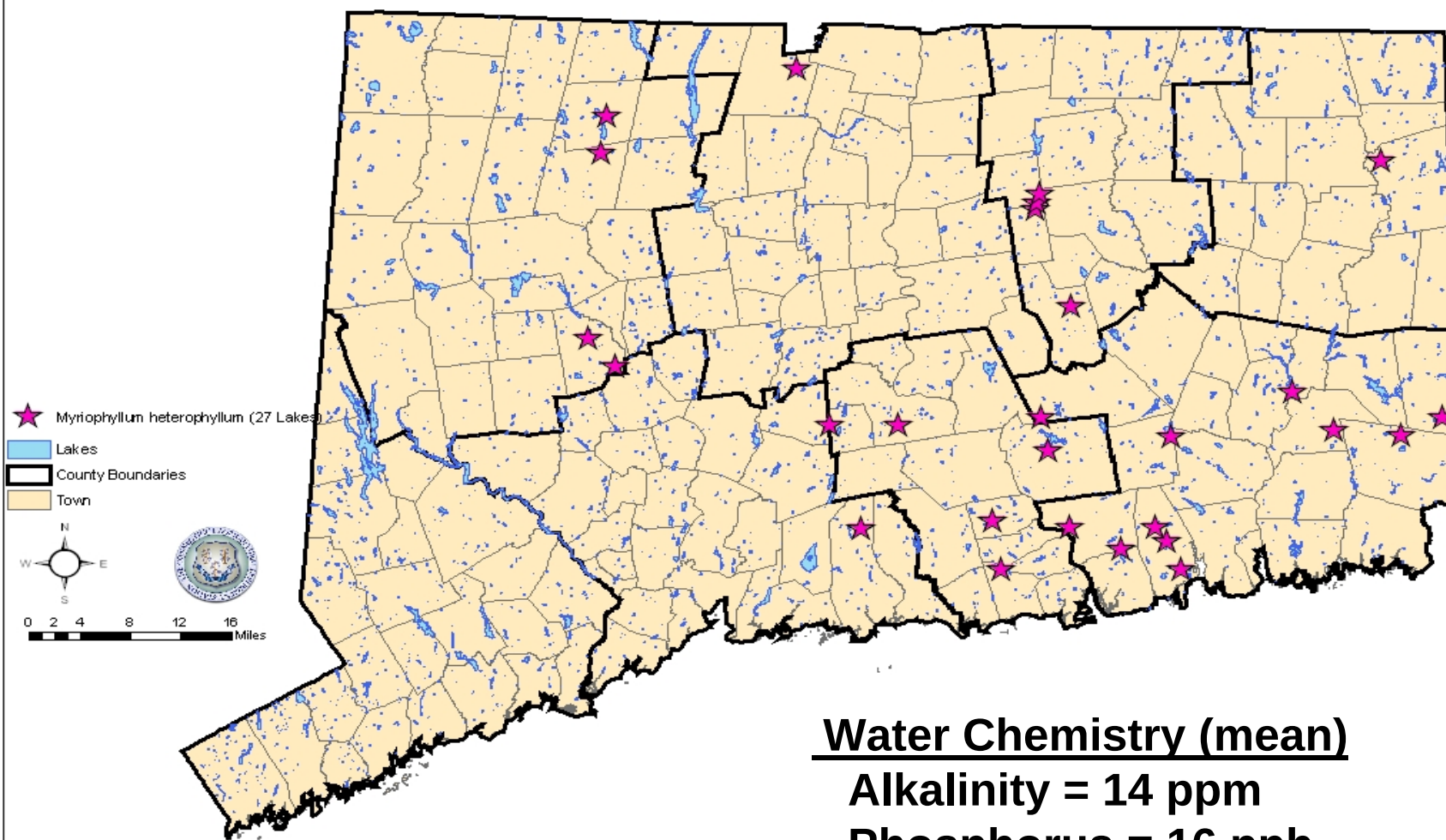
Found in = 28 water bodies

Minor Naiad
Najas minor

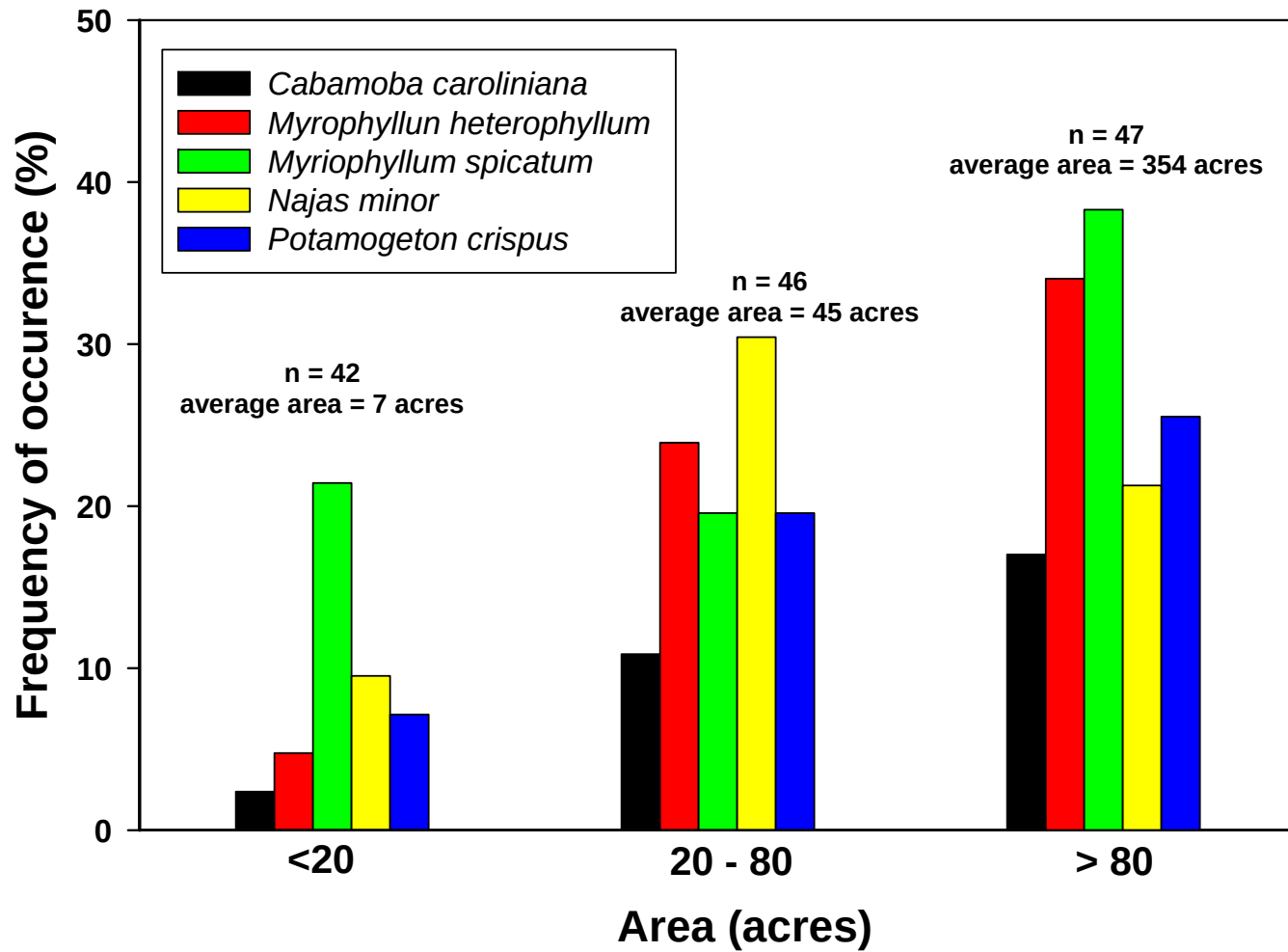
Myriophyllum spicatum Found in the 2004-2007 CAES IAPP Surveyed Lakes



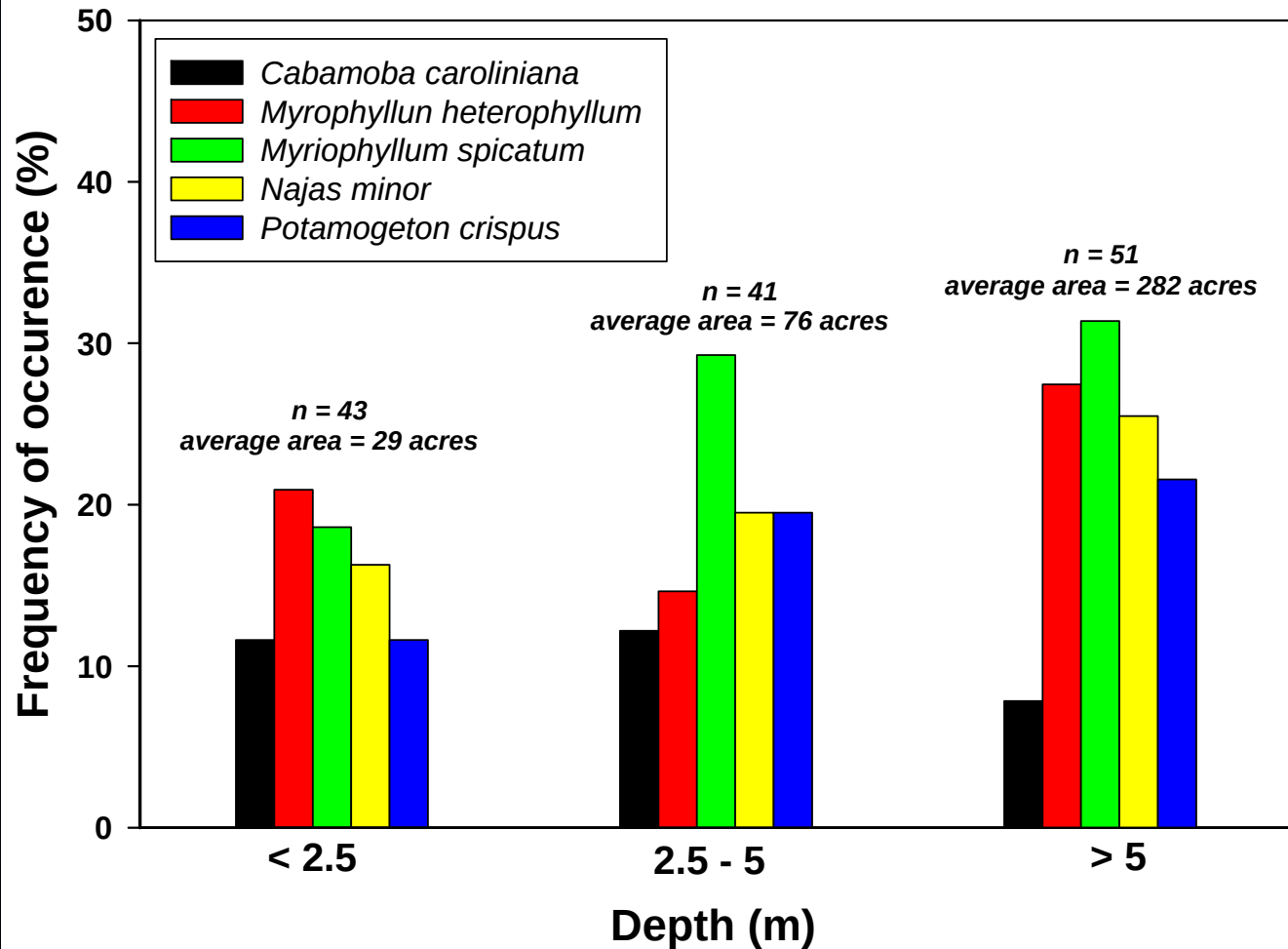
Myriophyllum heterophyllum Found in the 2004-2007 CAES IAPP Surveyed Lakes



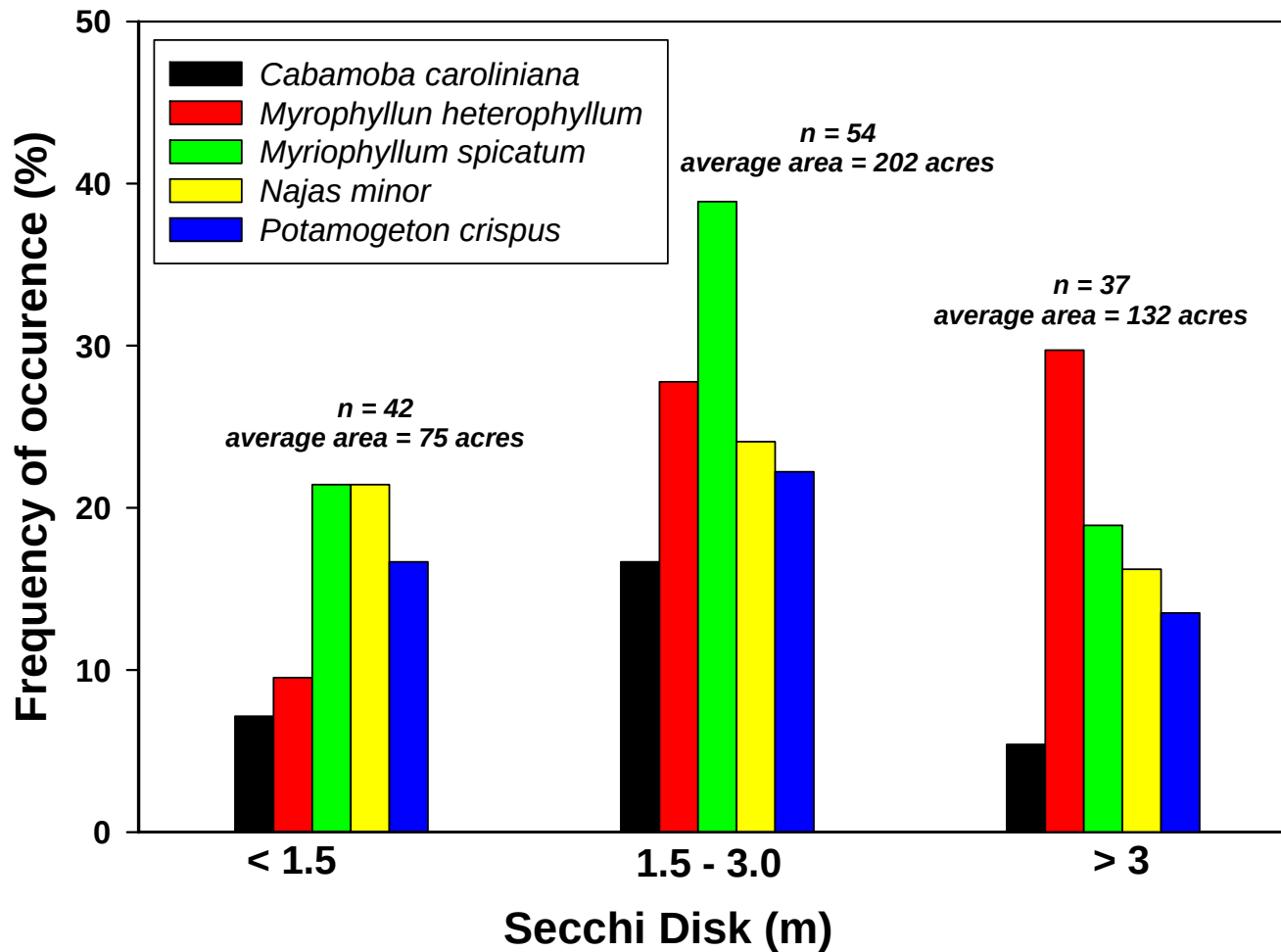
Invasive Plants and Lake Area



Invasive Plants and Depth



Invasive Plants and Water Clarity



Boat Launches

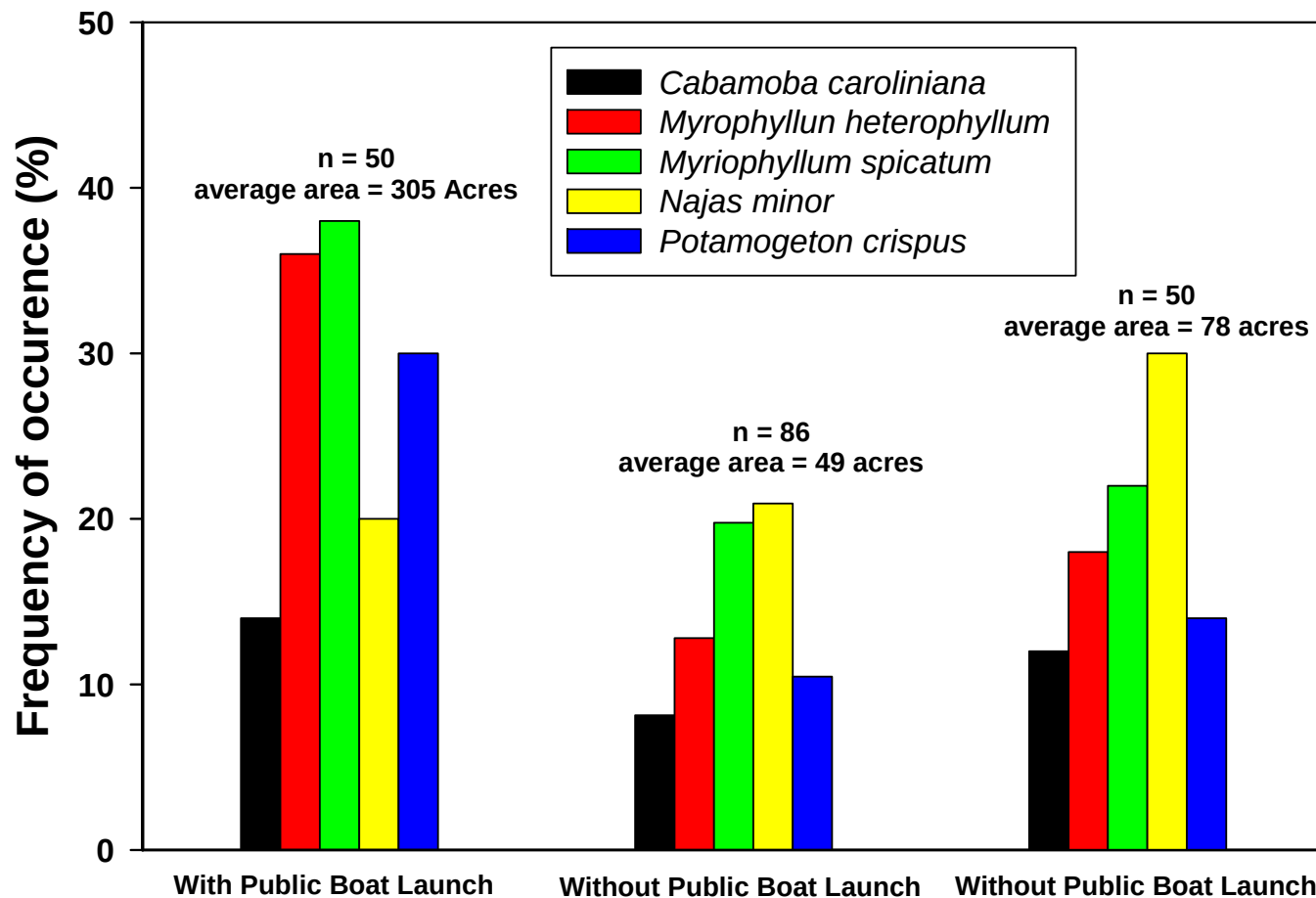


CAES IAPP

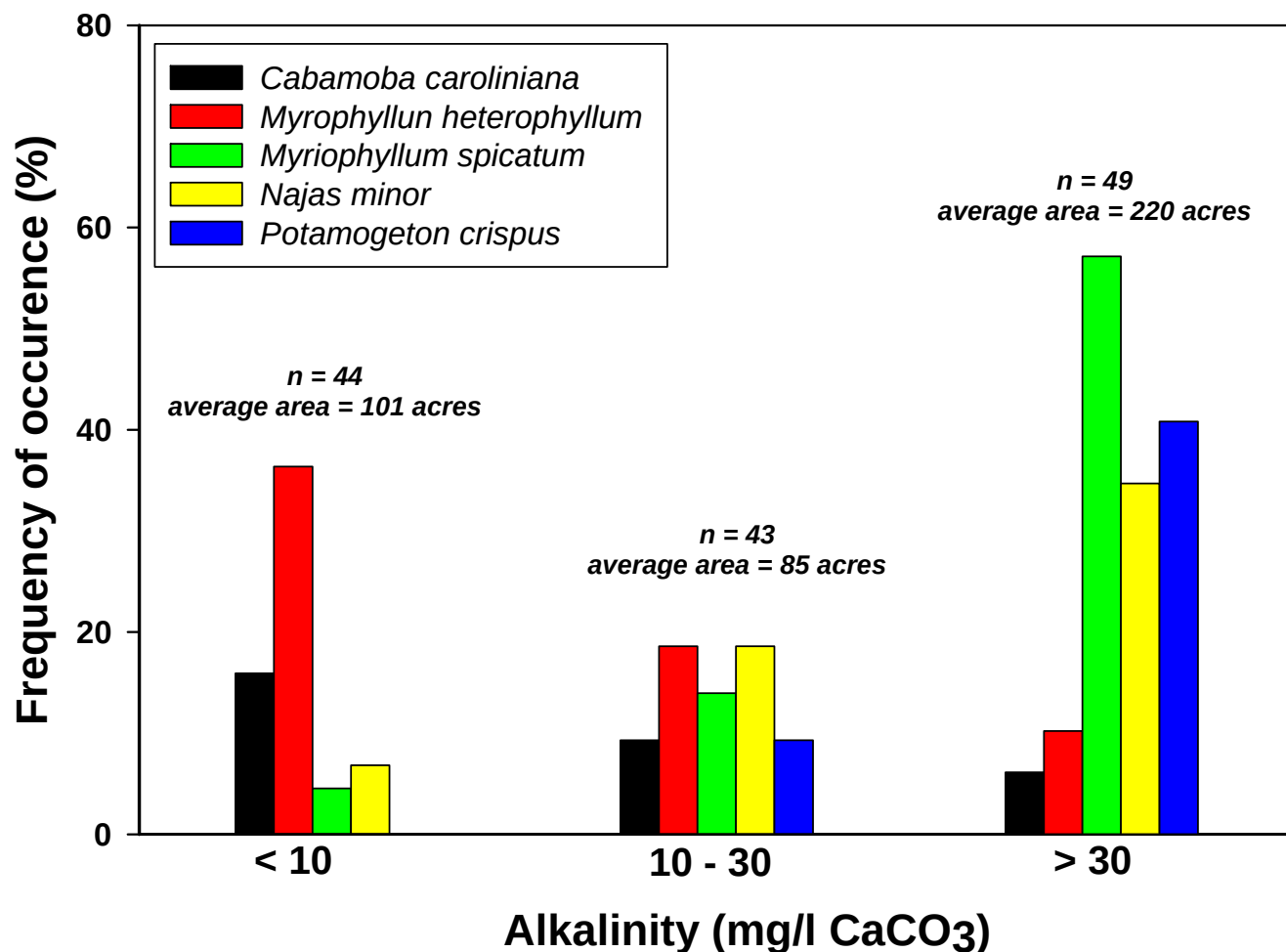


CAES IAPP

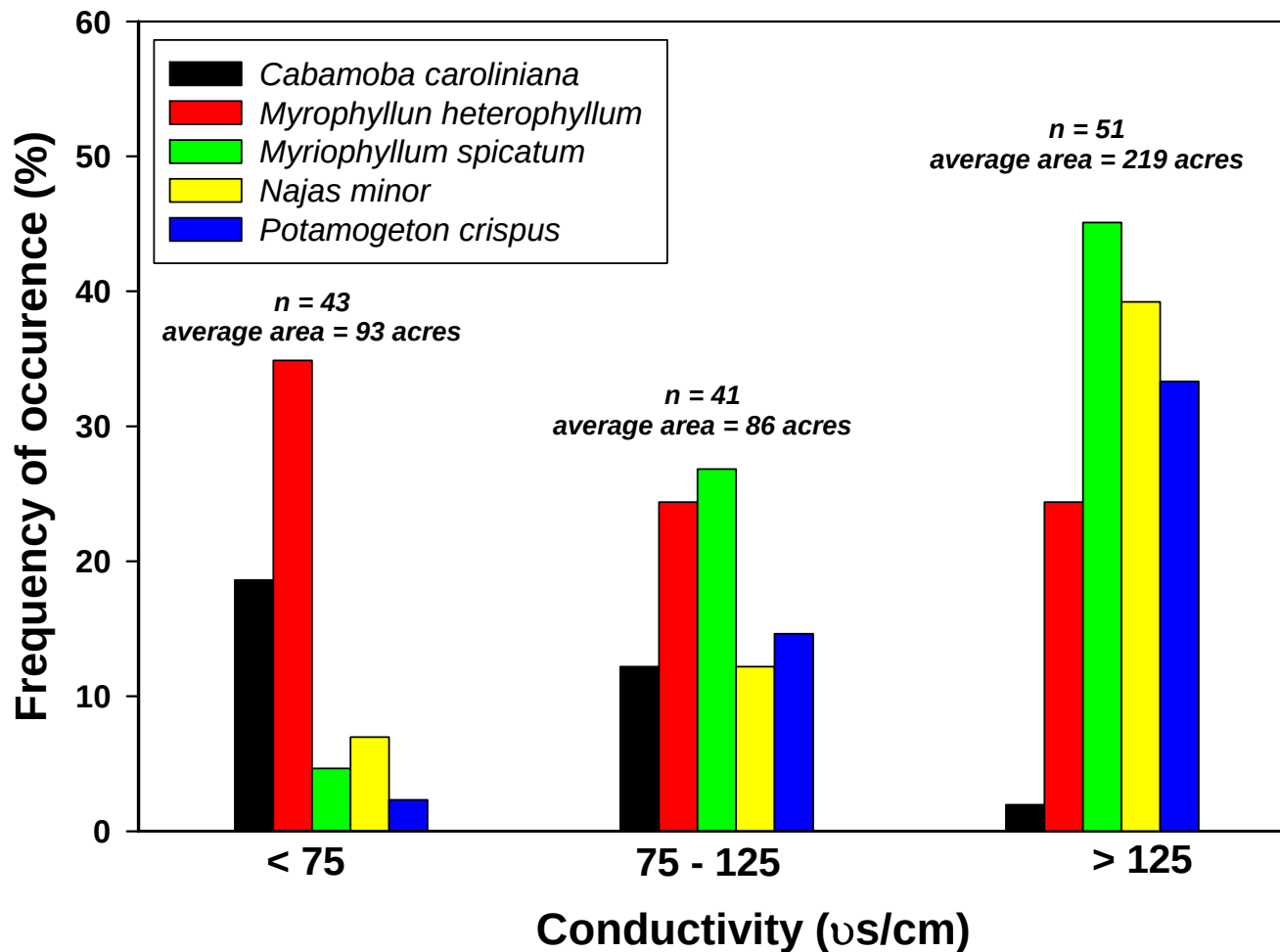
Invasive Plants and Public Boat Launches



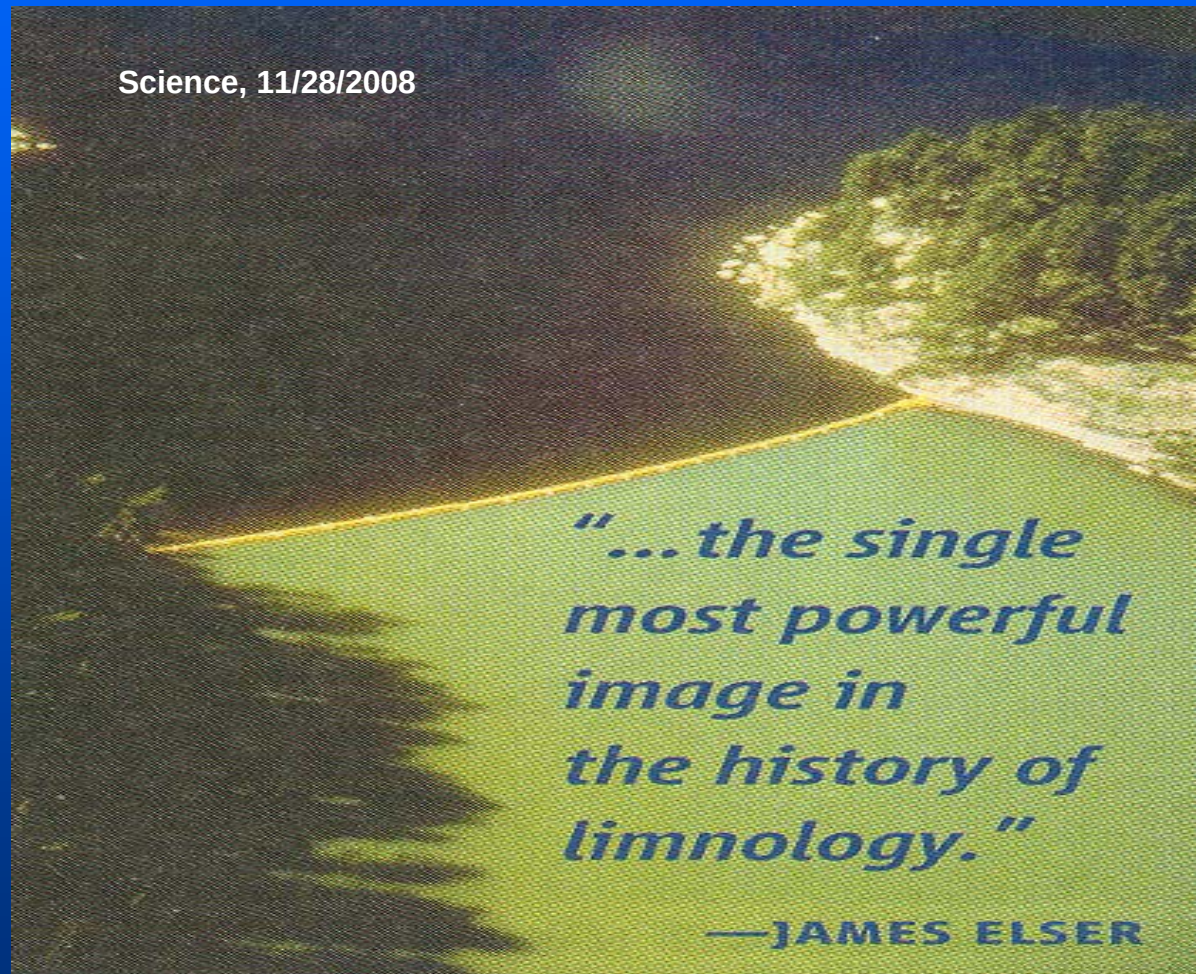
Invasive Plants and Alkalinity



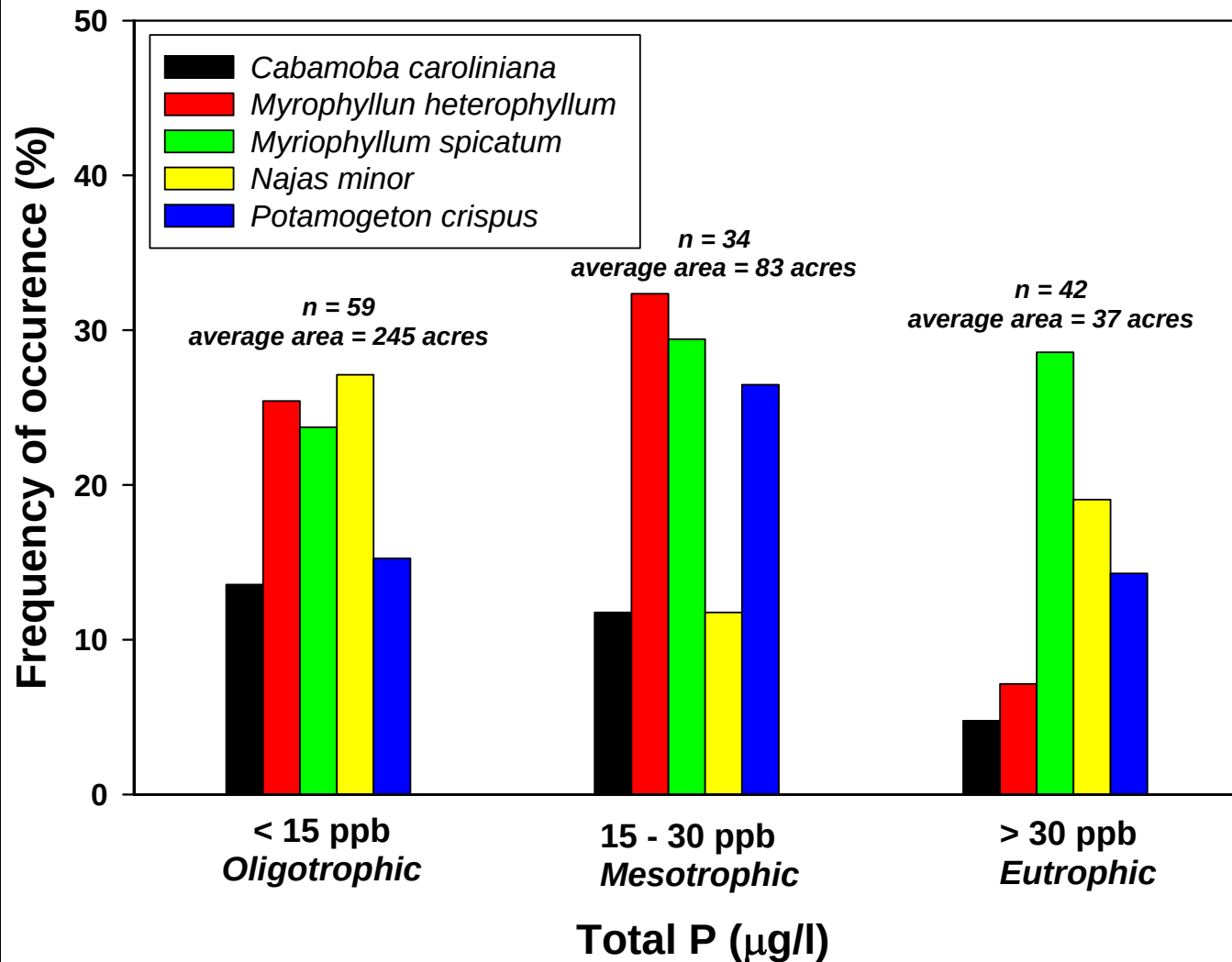
Invasive Plants and Conductivity



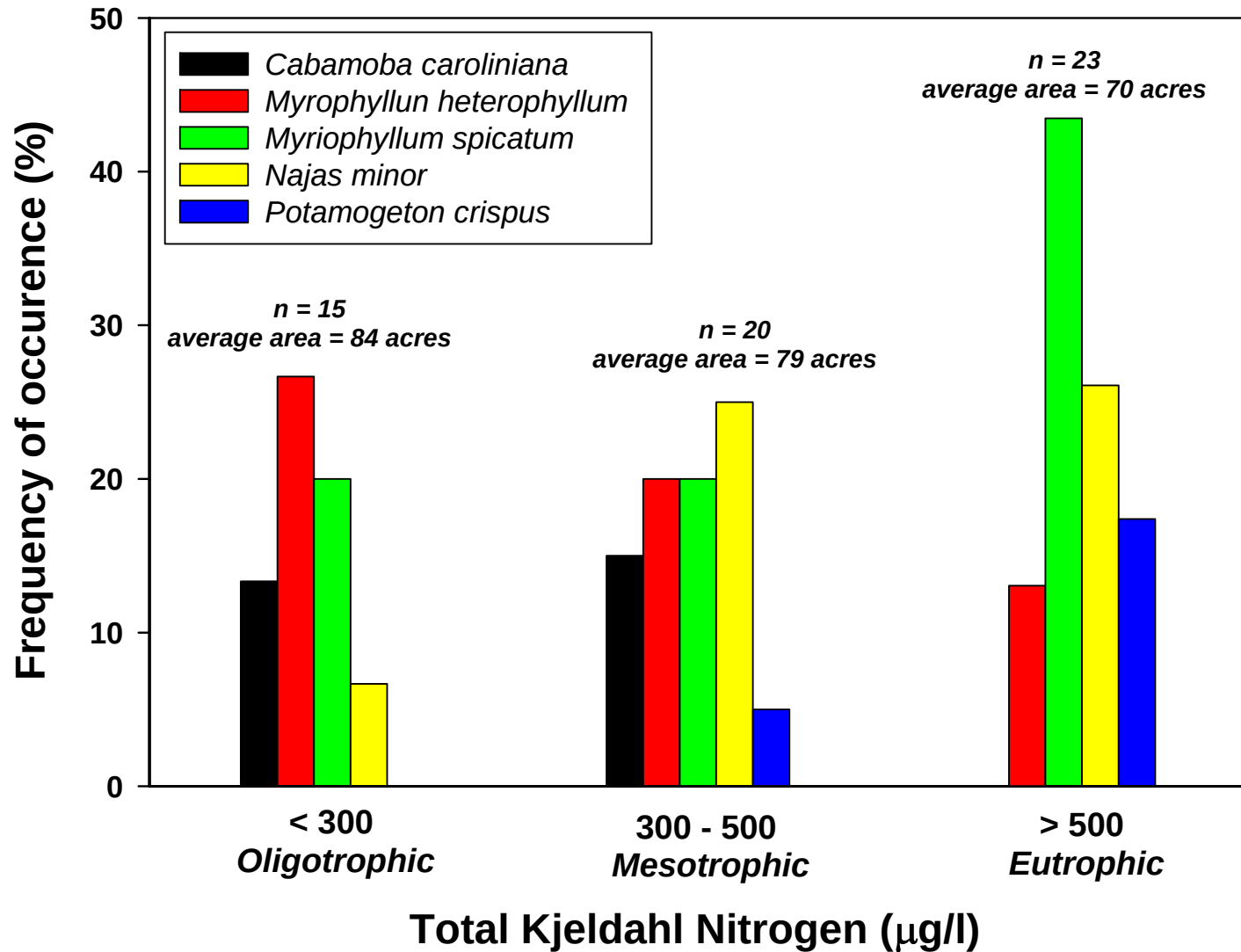
Does Phosphorus Promote Invasive Aquatic Macrophytes?



Invasive Plants and Total P



Invasive Plants and Nitrogen



CAES IAPP Website

www.ct.gov/caes/iapp

CAES: Aquatic Plant Survey Program for Connecticut Lakes - Windows Internet Explorer

http://www.ct.gov/caes/cwp/view.asp?a=27999&q=376972&caesNav_GID=1805&caesNav=

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CAES: Aquatic Plant Survey Program for Con...

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THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION INVASIVE AQUATIC PLANT PROGRAM (CAES IAPP)

Since 2002, scientists at the Connecticut Agricultural Experiment Station have been surveying Connecticut lakes and ponds for invasive aquatic plants and investigating various management options. Surveillance and monitoring are focused specifically on invasive aquatic plant species, but we also record the location and abundance of native, submerged and floating-leaved plants. This research will allow us to track the spread of invasive plants and to record the arrival of new invasive species. Surveys also will provide baseline information on the changes in native plant communities as a response to invasions, and if the frequency and magnitude of those invasions are related to changing climate conditions. Management studies include tests on the effect of herbicides, mechanical removal, biological control, and integrated pest management on invasive species control and plant community dynamics. This program is supported by the U.S. Department of Agriculture.

[Learn how to identify invasive aquatic plants at one of our workshops!](#)

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