

Invasive Aquatic Plants: Why Do We Care?

Lower Hudson Lakes Conference

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Invasive Species

- Species transported to an area
 - Scale matters!
- Ability to degrade an ecosystem
- No natural predators
- Fast reproducing
- Harms the economy and even human health

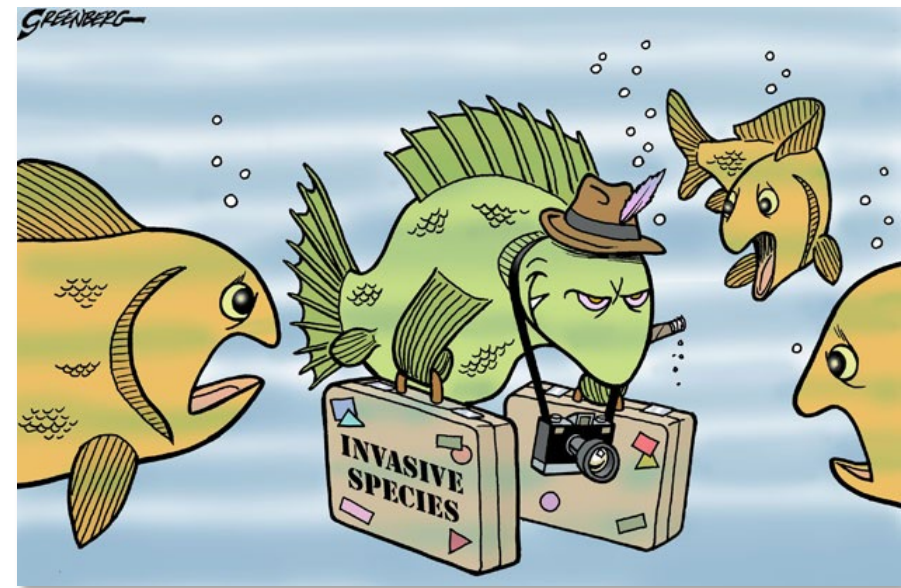


Image from: <http://almagottlieb.com/2017/08/what-a-brown-recluse-spider-has-taught-me/invasive-species-fish-cartoon/>



What's the Difference?

- **Invasive:** Non-native and can destroy ecosystems
- **Non-native:** Species introduced by humans where not previously found
- **Naturalized:** Species introduced by humans and does not need human help to reproduce or maintain itself
- **Native:** Species that has developed over thousands of years in its ecosystem



Invasive Aquatic Plants

- Imp

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The aquatic weed hydrilla is attributed to causing one of the greatest single impacts from an invasive species in the state. Hydrilla populations in the Santee Cooper Lake System, a large hydroelectric project north of Charleston, had been expanding rapidly since 1982.

Following a storm in 1991, large rafts of hydrilla were dislodged and floated into the water intake canal and impinged on the debris screens of the St. Stephen Hydroelectric Facility. The power plant was shut down for weeks while hydrilla was removed from the screens. The economic impact from that incident alone was estimated at \$4 million in lost electric power generation and associated costs. In addition, the shutdown prevented water flow downstream, which resulted in oxygen depletion and one of the state's largest fish kill incidents with \$526,000 in lost game fish. Hydrilla continued to impair electric power generation at St. Stephens to a lesser extent during subsequent years.

Opinion

At the Lake: Battling aquatic Tahoe

Planes and Wildlife

ndangers



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Management Options

- Physical
- Drawdown
- Chemical
- Biological





Curly Leaf Pondweed (*Potamogeton crispus*)





Eurasian Watermifoil (*Myriophyllum spicatum*)





Fanwort (*Cabomba caroliniana*)





Hydrilla (*Hydrilla verticillata*)







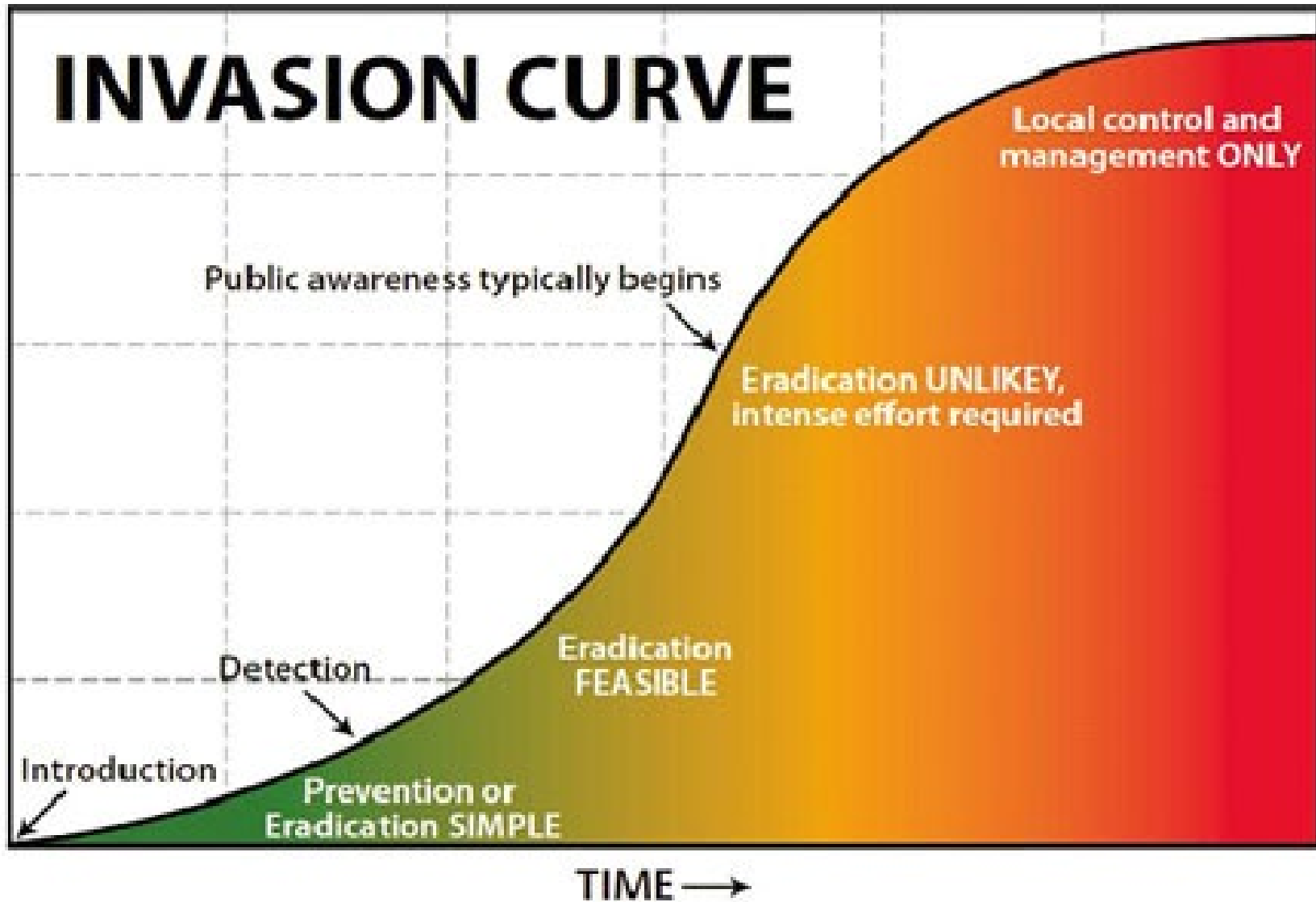
Water Chestnut (*Trapa natans*)





INVASION CURVE

AREA INFESTED



www.adirondackalmanack.com



Preventing Invasions



STOP AQUATIC HITCHHIKERS!

Prevent the transport of nuisance species.
Clean all recreational equipment.
www.ProtectYourWaters.net

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Invasive Investigator Program



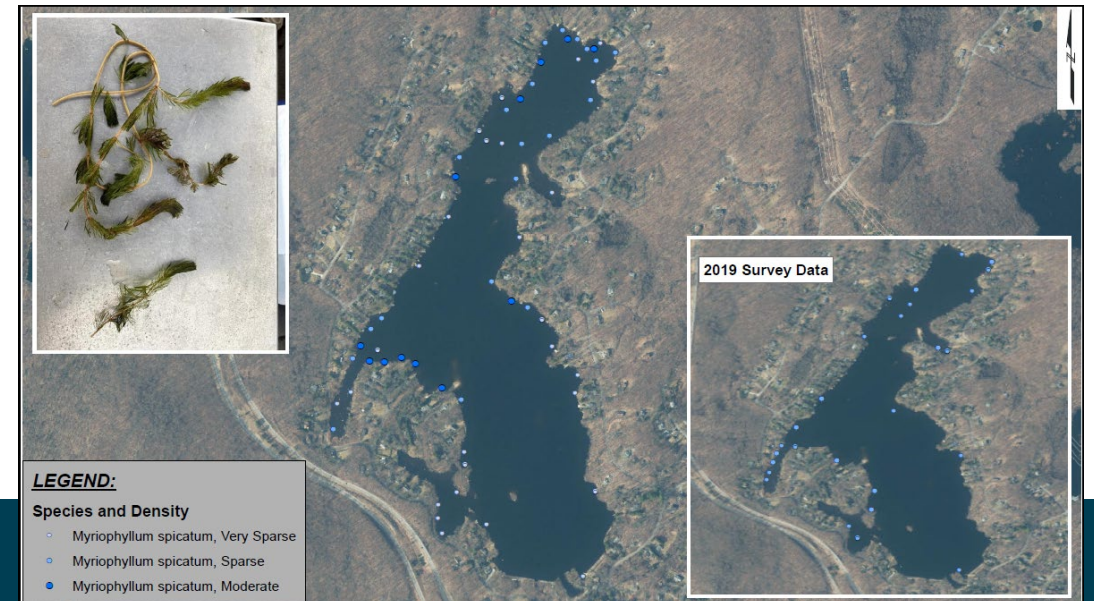
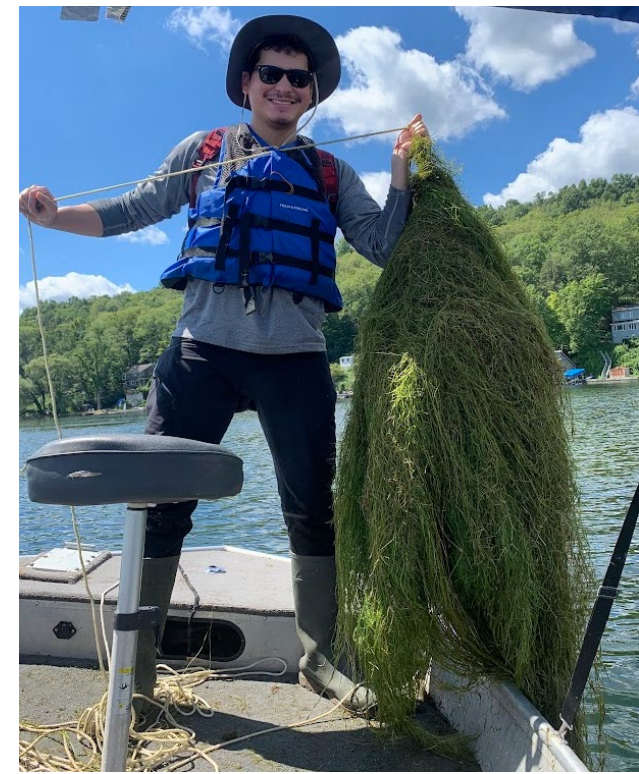
History: Zebra mussels, an invasive species, have recently been found in the Housatonic River system, specifically in Lakes Lillinonah and Zoar. It is important to curb the spread of these species because they are detrimental to the ecosystem and can adversely impact recreational activities. The Connecticut Department of Energy & Environmental Protection (DEEP) believes that public awareness and education are key tools to prevent the spread of all aquatic invasive species by recreational boaters and other users.

General Description: The Volunteer Invasive Investigator Program is designed specifically to help educate people on ways to keep our waters clean and prevent the spread of aquatic hitchhikers into the lakes and rivers of Connecticut. The Invasive Investigators will check for invasive species and collect information about where boats have been, if any invasive species were found, and what if any cleaning steps were done prior to launch.



MONITORING!!!!

- Establishing a baseline
- Tracking changes over time
- Evaluating a management technique
 - Better to be done independent of implementation.
- Rare/Endangered Species
- Different survey designs for different goals



Contact Information

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