NEW YORK
STATE OF
OPPORTUNITY

Department of
Environmental
Conservation

Education and Outreach: An Invaluable Tool for Addressing Hydrilla

Northeast Aquatic Nuisance Species Panel Meeting
June 3, 2019

Phases of a Hydrilla Control Project

- Verifying plant identification
- Delineating of infestations
- Building stakeholder support
- Developing management plan
- Implementing management plan
- Preventing spread
- Creating EDRR/Reporting Network

The Ellsworth American

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Verifying Plant Identification

Press releases

Email blasts

- Provide initial education and outreach opportunity about aquatic invasive species

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Delineations of infestations/aquatic plant surveys

- Keep the public and elected officials posted about what's happening

- Education about impacts of aquatic invasive plants on native plants and animals


Nicole White

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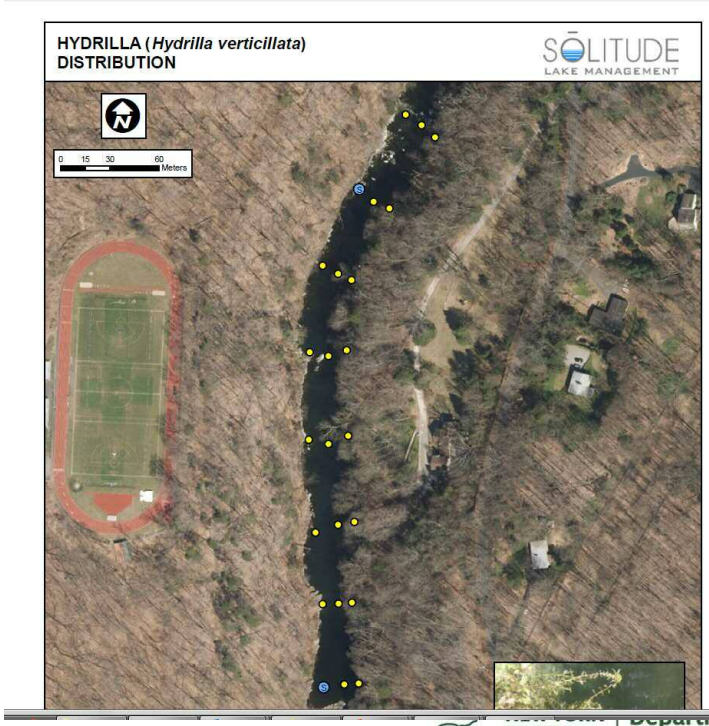
Delineations of infestations/aquatic plant surveys

- Demonstration of how extensive an infestation is (making it more “real”)
- Provide a baseline for comparison



Building Stakeholder Support

- Identify target audiences and impacted groups
- Discuss potential impacts and management options with those groups
- Provide more one-on-one education for stakeholders who are against a project or who have questions

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Developing of Management Plan

- Continued education and outreach about management option chosen
- Education about the outcome of doing nothing
- Review and discussion of management plan by key stakeholders

J. Clayton, NYSDEC

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Implementing of management plan

Permitting

- Letting the public know you are doing your due diligence and are being careful to follow guidelines

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Implementing of management plan

Signage

- Explanation of treatment option

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Implementing of management plan

Signage

- Education and outreach about project

Implementing of management plan

Signage

- Information about “clean, drain, dry” protocol

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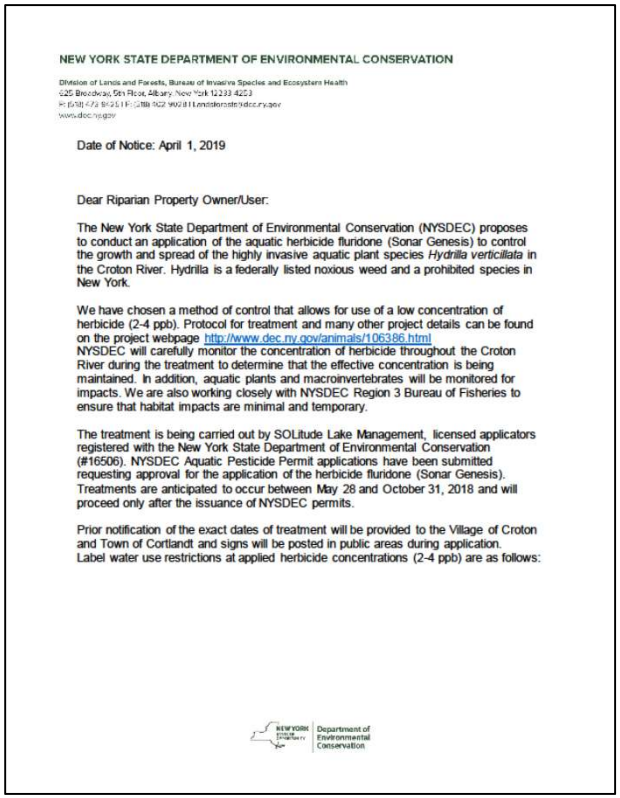
Implementing of management plan

- Notifications to riparian landowners



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Lands and Forests, Bureau of Invasive Species and Ecosystem Health
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P: (518) 474-9131 | F: (518) 402-9027 | Invasives@dec.ny.gov
www.dec.ny.gov

Date of Notice: April 1, 2019

Dear Riparian Property Owner/User:

The New York State Department of Environmental Conservation (NYSDEC) proposes to conduct an application of the aquatic herbicide fluridone (Sonar Genesis) to control the growth and spread of the highly invasive aquatic plant species *Hydrilla verticillata* in the Croton River. Hydrilla is a federally listed noxious weed and a prohibited species in New York.

We have chosen a method of control that allows for use of a low concentration of herbicide (2-4 ppb). Protocol for treatment and many other project details can be found on the project webpage http://www.dec.ny.gov/animals/106386.html
NYSDEC will carefully monitor the concentration of herbicide throughout the Croton River during the treatment to determine that the effective concentration is being maintained. In addition, aquatic plants and macroinvertebrates will be monitored for impacts. We are also working closely with NYSDEC Region 3 Bureau of Fisheries to ensure that habitat impacts are minimal and temporary.

The treatment is being carried out by SOLitude Lake Management, licensed applicators registered with the New York State Department of Environmental Conservation (#16506). NYSDEC Aquatic Pesticide Permit applications have been submitted requesting approval for the application of the herbicide fluridone (Sonar Genesis). Treatments are anticipated to occur between May 28 and October 31, 2018 and will proceed only after the issuance of NYSDEC permits.

Prior notification of the exact dates of treatment will be provided to the Village of Croton and Town of Cortlandt and signs will be posted in public areas during application.
Label water use restrictions at applied herbicide concentrations (2-4 ppb) are as follows:

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Implementing of management plan

- Project public stakeholder meetings

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Implementing of management plan

- Internships for high school students

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Preventing spread

- Watercraft inspection stewards deployed at strategic locations


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Preventing spread: Behavior Change

- Implement an AIS behavior change campaign and evaluate its effectiveness in reaching target audiences.
- Originally called “AIS awareness campaign”

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Preventing spread - Behavioral Change

- Working with behavioral psychologist
- Tweaking our existing messaging
- Asking for a commitment at end of WISPA survey
- Stewards providing link to pre-behavioral change implementation survey

J. Clayton, NYSDEC

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Preventing spread: Behavior Change

- Adding question at end of boater survey asking if “we can count on you to clean, drain, and dry when there are no stewards around.”

- Baseline survey to help assess impact

J. Clayton, NYSDEC

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Preventing spread: AIS disposal stations

- Install and expand use of AIS disposal stations at waterway access sites

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Preventing spread

- Classroom education for K-12

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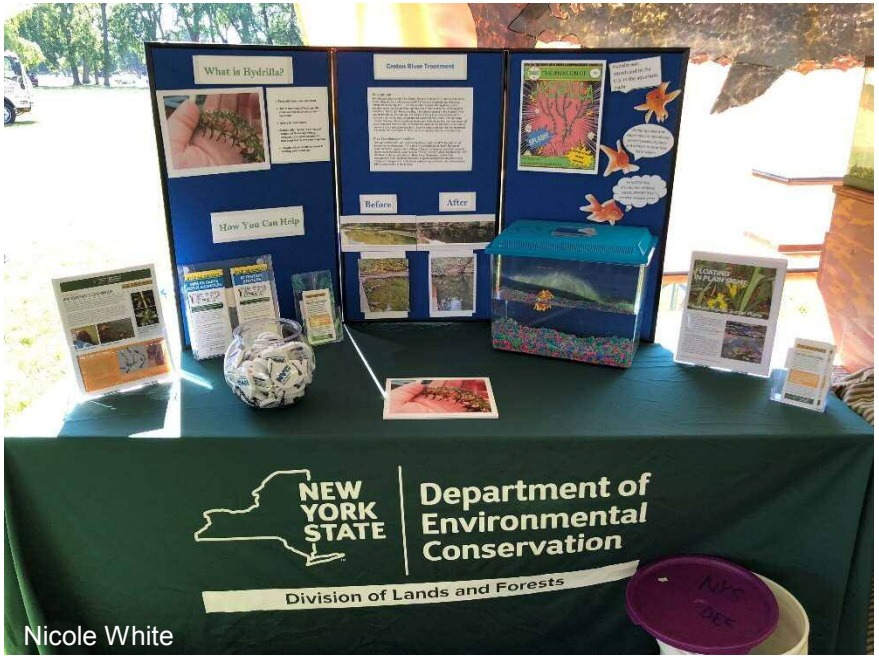
Preventing spread

- Local and regional events



Nicole White

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Preventing spread

And avoiding reintroduction

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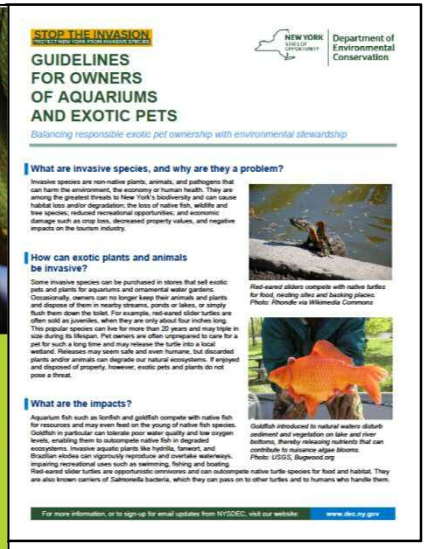
Preventing spread - Organisms in Trade



- Approach to outreach through the pet trade still in progress
- Fact Sheets being distributed
- Webpage and Conservationist article
- Customer tip strip in progress

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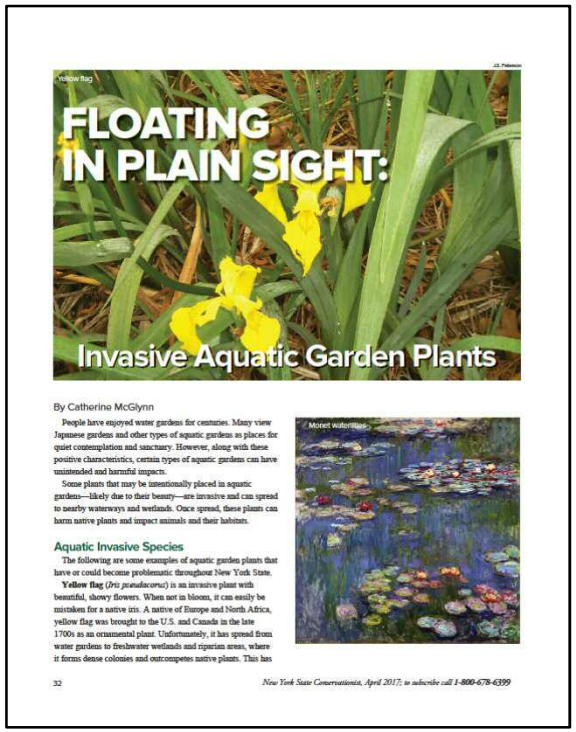
Preventing spread - Organisms in Trade



FLOATING IN PLAIN SIGHT:

Invasive Aquatic Garden Plants

By Catherine McGlynn

People have enjoyed water gardens for centuries. Many view Japanese gardens and other types of aquatic gardens as places for quiet contemplation and sanctuary. However, along with these positive characteristics, certain types of aquatic gardens can have unintended and harmful impacts.

Some plants that may be intentionally placed in aquatic gardens—likely due to their beauty—are invasive and can spread to nearby waterways and wetlands. Once spread, these plants can harm native plants and impact animals and their habitats.

Aquatic Invasive Species

The following are some examples of aquatic garden plants that have or could become problematic throughout New York State.

Yellow flag (*Iris pseudacorus*) is an invasive plant with beautiful, showy flowers. When not in bloom, it can easily be mistaken for a native iris. A native of Europe and North Africa, yellow flag was brought to the U.S. and Canada in the late 1700s as an ornamental plant. Unfortunately, it has spread from water gardens to freshwater wetlands and riparian areas, where it forms dense colonies and outcompetes native plants. This has

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New York State Conservationist, April 2017; to subscribe call 1-800-678-6399

- Starting to increase education and outreach to aquatic gardeners
- Creating guide for alternatives to invasive non-native plants
- Inspections of nurseries already taking place (DAM)

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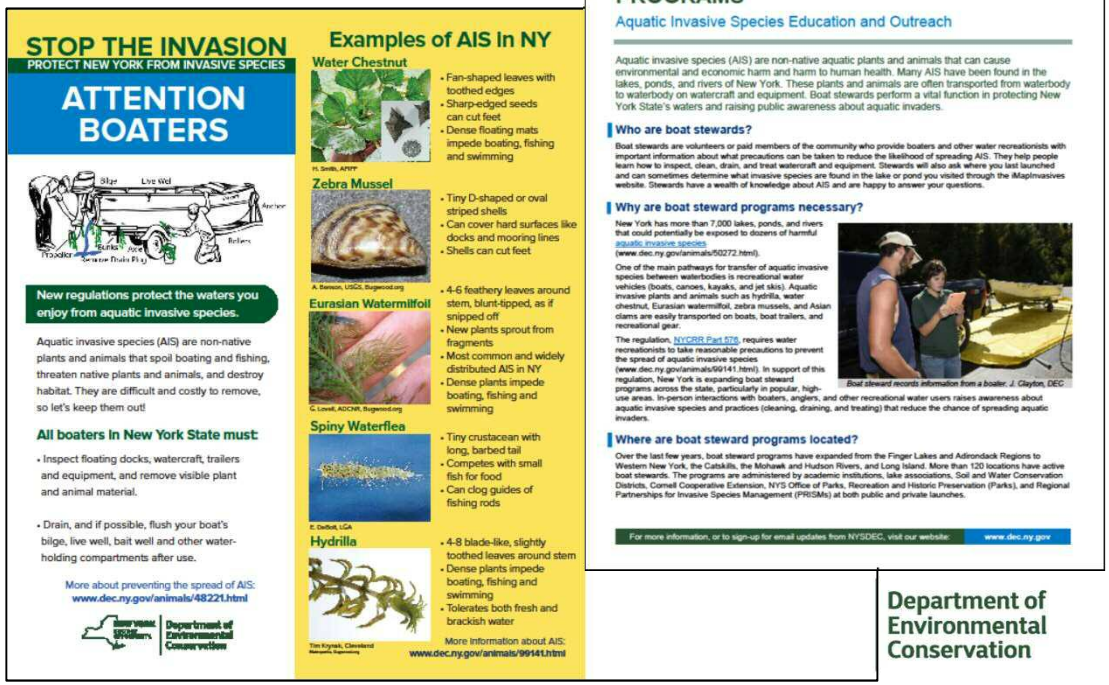
Preventing spread - Message consistency

Standardized education and outreach products

Standardized training for stewards

Standardized signs

AIS disposal stations



STOP THE INVASION
PROTECT NEW YORK FROM INVASIVE SPECIES

ATTENTION BOATERS

New regulations protect the waters you enjoy from aquatic invasive species.

Aquatic invasive species (AIS) are non-native plants and animals that spoil boating and fishing, threaten native plants and animals, and destroy habitat. They are difficult and costly to remove, so let's keep them out!

All boaters in New York State must:

- Inspect floating docks, watercraft, trailers and equipment, and remove visible plant and animal material.
- Drain, and if possible, flush your boat's bilge, live well, bait well and other water-holding compartments after use.

More about preventing the spread of AIS:
www.dec.ny.gov/animals/48221.html

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Examples of AIS in NY

Water Chestnut
- Fan-shaped leaves with toothed edges
- Sharp-edged seeds can cut feet
- Dense floating mats impede boating, fishing and swimming

Zebra Mussel
- Tiny D-shaped or oval striped shells
- Can cover hard surfaces like docks and mooring lines
- Shells can cut feet

Eurasian Watermilfoil
- 4-6 feathery leaves around stem, blunt-tipped, as if snipped off
- New plants sprout from fragments
- Most common and widely distributed AIS in NY
- Dense plants impede boating, fishing and swimming

Spiny Waterflea
- Tiny crustacean with long, barbed tail
- Competes with small fish for food
- Can clog guides of fishing rods

Hydrilla
- 4-8 blade-like, slightly toothed leaves around stem
- Dense plants impede boating, fishing and swimming
- Tolerates both fresh and brackish water

More information about AIS:
www.dec.ny.gov/animals/99141.html

STOP THE INVASION
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BOAT STEWARD PROGRAMS

Aquatic Invasive Species Education and Outreach

Aquatic invasive species (AIS) are non-native aquatic plants and animals that can cause environmental and economic harm and harm to human health. Many AIS have been found in the lakes, ponds, and rivers of New York. These plants and animals are often transported from waterbody to waterbody on watercraft and equipment. Boat stewards perform a vital function in protecting New York State's waters and raising public awareness about aquatic invaders.

Who are boat stewards?

Boat stewards are volunteers or paid members of the community who provide boaters and other water recreationists with important information about what precautions can be taken to reduce the likelihood of spreading AIS. They help people learn how to inspect, clean, drain, and treat watercraft and equipment. Stewards will also ask where you last launched and can sometimes determine what invasive species are found in the lake or pond you visited through the iMapInvasives website. Stewards have a wealth of knowledge about AIS and are happy to answer your questions.

Why are boat steward programs necessary?

New York has more than 7,000 lakes, ponds, and rivers that could potentially be exposed to dozens of harmful aquatic invasive species (www.dec.ny.gov/animals/50272.html).

One of the main pathways for transfer of aquatic invasive species between waterbodies is recreational water vehicles (boats, canoes, kayaks, and jet skis). Aquatic invasive plants and animals such as hydrilla, water chestnut, Eurasian watermilfoil, zebra mussels, and Asian clams are easily transported on boats, boat trailers, and recreational gear.

The regulation, NYCRR Part 576, requires water recreationists to take reasonable precautions to prevent the spread of aquatic invasive species (www.dec.ny.gov/animals/99141.html). In support of this regulation, New York is expanding boat steward programs across the state, particularly in popular, high-use areas. In-person interactions with boaters, anglers, and other recreational water users raises awareness about aquatic invasive species and practices (cleaning, draining, and treating) that reduce the chance of spreading aquatic invaders.

Boat steward records information from a boater. J. Clayton, DEC

Where are boat steward programs located?

Over the last few years, boat steward programs have expanded from the Finger Lakes and Adirondack Regions to Western New York, the Catskills, the Mohawk and Hudson Rivers, and Long Island. More than 120 locations have active boat stewards. The programs are administered by academic institutions, lake associations, Soil and Water Conservation Districts, Cornell Cooperative Extension, NYS Office of Parks, Recreation and Historic Preservation (Parks), and Regional Partnerships for Invasive Species Management (PRISMs) at both public and private launches.

For more information, or to sign-up for email updates from NYSDEC, visit our website: www.dec.ny.gov

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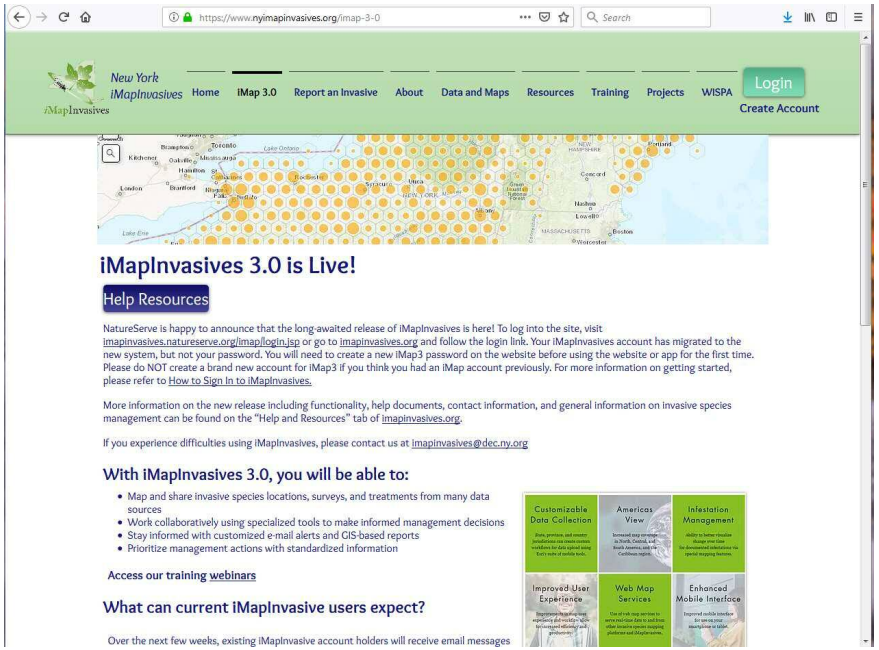
Creating EDRR/Reporting Network

- Provide training for potential reporters
- Use data to inform management strategies
- Track movement of hydrilla throughout the state and across state lines



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Resources

NYSDEC website

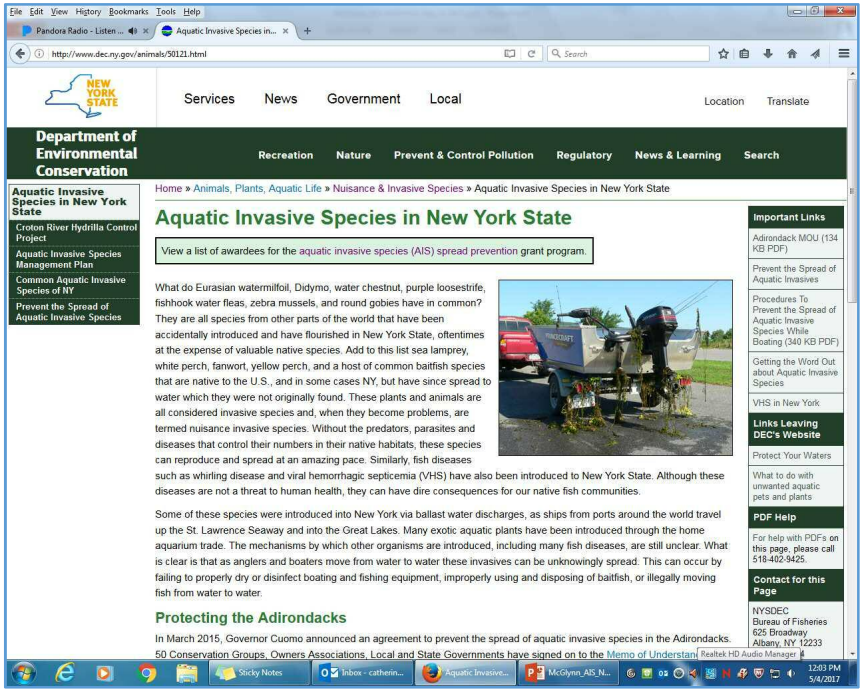
http://www.dec.ny.gov/:

Nature

Invasive Species

Aquatic Invasive Species in NYS

Invasive Species Regulations



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Thank you!

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