



Great Marsh Pepperweed Control Project



Perennial Pepperweed (*Lepidium latifolium*)

YOUR NAME: LIZ DUFF

YOUR ORGANIZATION: MASS AUDUBON

DATE: 4/22/2019

CATEGORY MANAGEMENT PROJECT



Project Purpose/Identified Need

Perennial pepperweed (*Lepidium latifolium*) is a recent invader in the Northeast, spreading rapidly throughout our salt marshes since the 1990s. Each plant produces thousands of seeds which are dispersed by wind and water. Left unchecked, pepperweed will continue to expand its distribution and displace native species.





Project Goals and Desired Outcomes

What are the **goals** of this project?

To restore and protect high quality salt marshes through pepperweed mapping, removal and control and to involve the public as active, long-term stewards in this effort.

What are you measuring?

1. Presence/Absence of Pepperweed
2. Percent cover of pepperweed
3. How many bags of pepperweed pulled at pull sites.

What is your desired ultimate outcome?

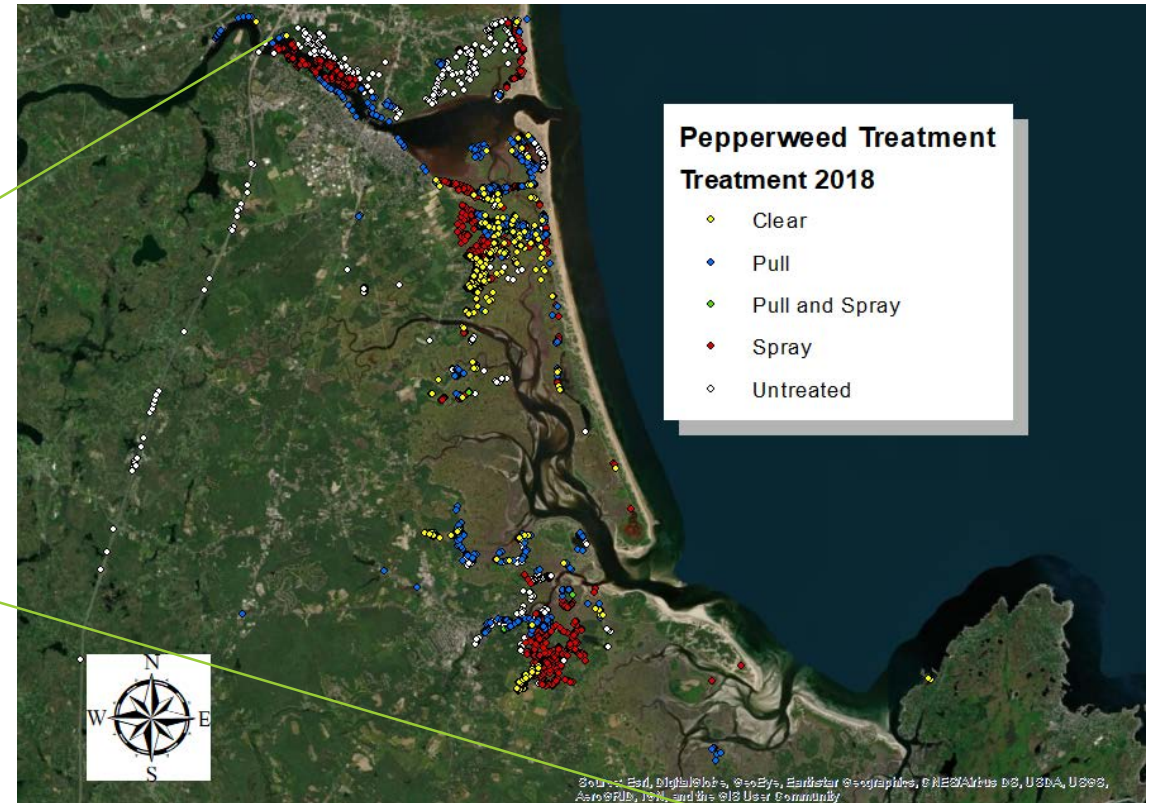
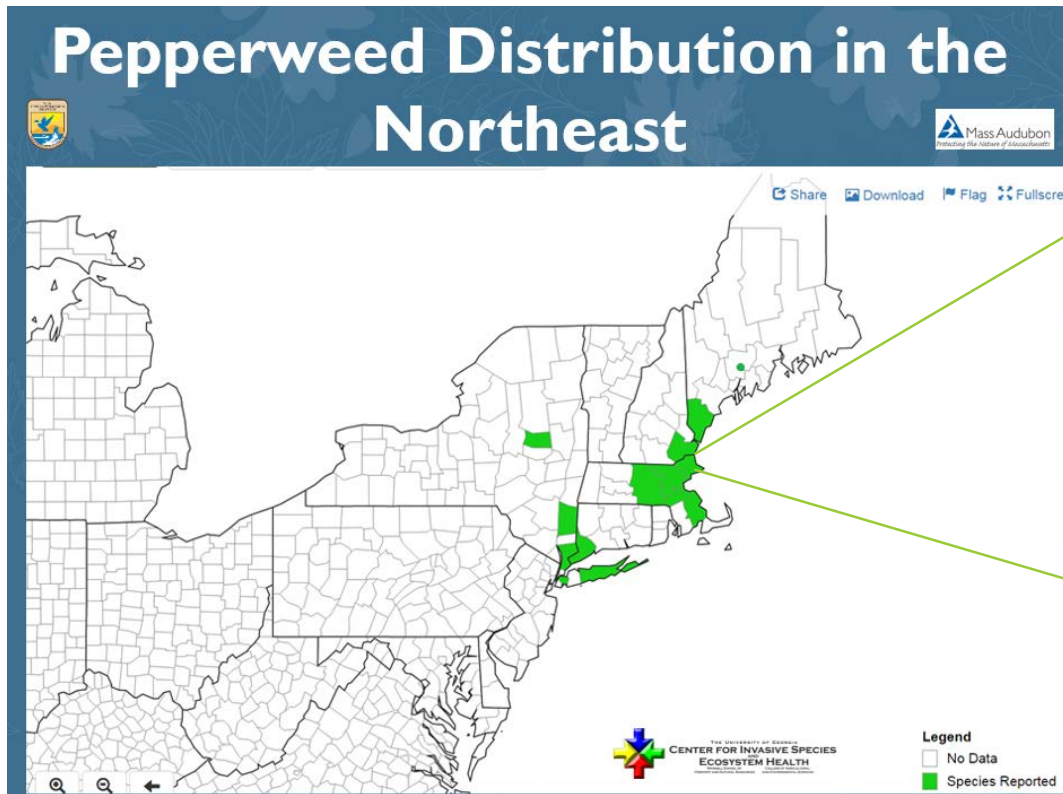
- Improved biodiversity of salt marshes.
- Long term stewards of local salt marshes.





Location: Great Marsh Region, Massachusetts

Unit of measure: Number of Pepperweed Sites, These range from a few stems to hundreds of meters.





Who is doing the work and when?

Project co-leads: Nancy Pau, Wildlife Biologist, US Fish and Wildlife Refuge,

Liz Duff, Education Coordinator, Mass Audubon's Salt Marsh Science Project

Project partners: Gulf of Maine Institute, Parker River Clean Water Association, Ipswich River Watershed Association, Trustees, Greenbelt, MA Department of Conservation and Recreation, MA Fish and Game, Mass Bay, Merrimack Valley Planning Commission, 8 Towns & The Great Marsh, Great Marsh Partnership, Local Schools and Community Groups

Start & dates of the project: Started in 2006-Present, Control= May-July Each Year.

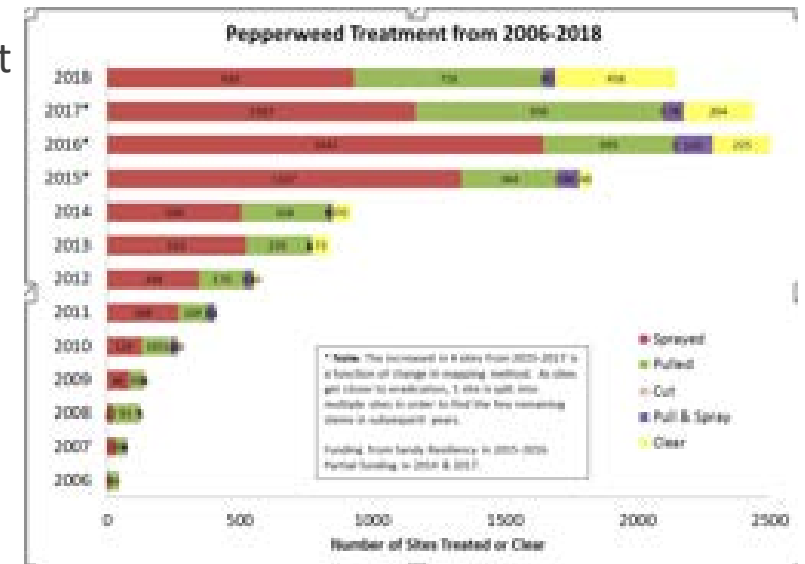
Context: USFWS is controlling invasives on PRNWR. Mass Audubon is monitoring *Phragmites* with students on Great Marsh salt marshes, and found pepperweed invading several long term sites.



Pre-Escort treatment, July 2005



Post-Escort treatment, July 2006





How Funded:

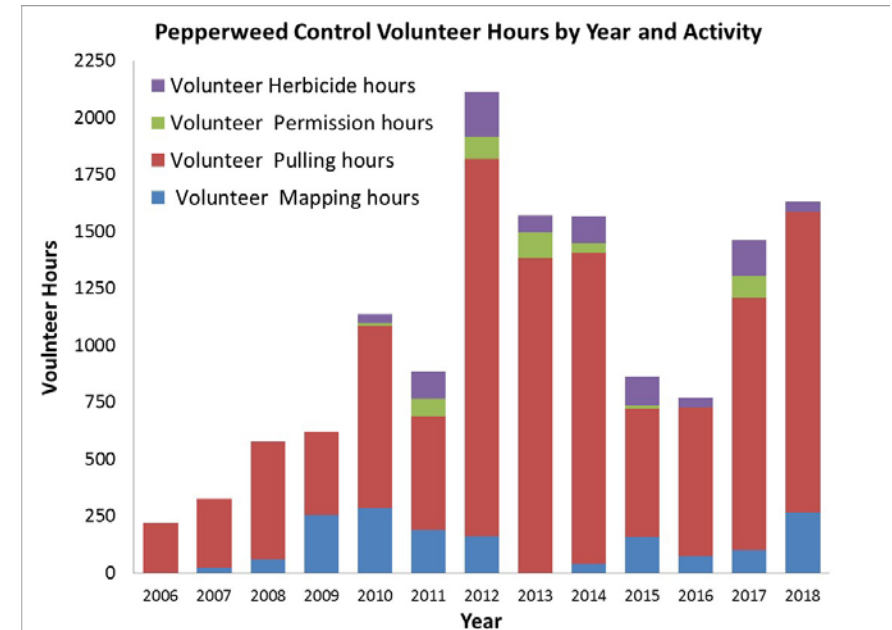
How is your work being funded

- Federal Funding through Hurricane Sandy Grants, and Sandy II.
- State funding for treatment on DCR properties.
- Much of our funding is matched through volunteer efforts.

How work is being communicated:

Property owners were contacted through mailings and phone calls to request permission.

We share our results with volunteers and partners through presentations.





Findings –

1. Successful pepperweed control is the result of a combination of pulling and herbicide application.
2. As we reduce pepperweed density throughout our marshes, we shift more effort toward pulling and fully eradicating pepperweed from some sites.
3. These efforts require numerous volunteers!
4. People care, and like to make a difference.