

Money and Attention for Land already in Conservation  
 Collaborative Model with Seven Partners  
 Funding Mechanism (\$2 mil at RI Found.)  
 Able to Tackle Bigger Issues



# Invasive Species Preparedness 2010

Funded by the RI Conservation Stewardship Collaborative

Early Detection

Response

Regional Participation

Outreach

Planning



= Invasive Species Preparedness

What's an ounce of prevention worth?

# Invasive Species Preparedness 2010

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Early Detection

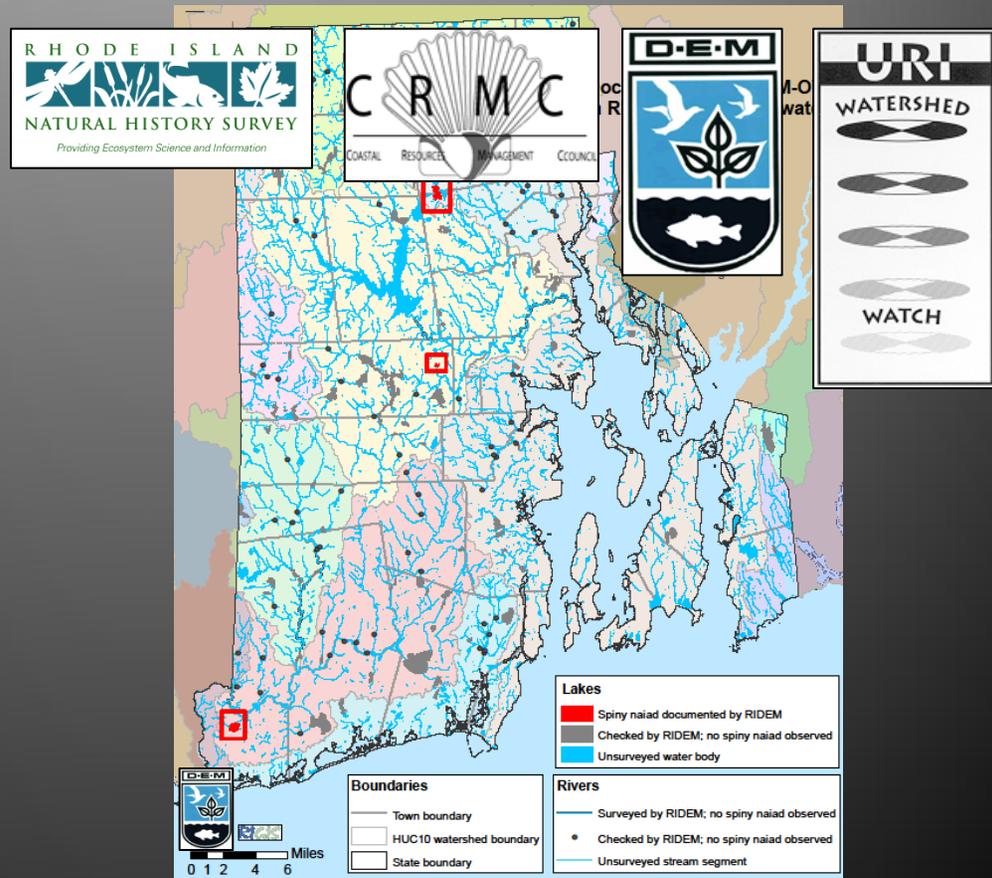
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## Invasive Aquatic Plant Surveys and Maps



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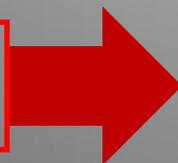
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Water Chestnut  
Mile-A-Minute Vine  
Stilt Grass



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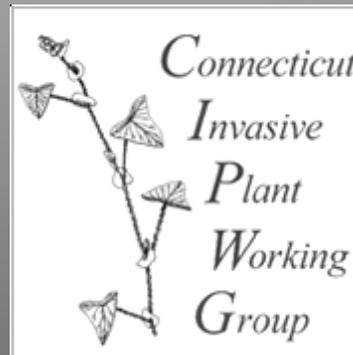
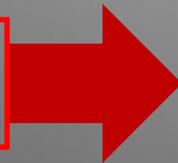
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Northeast IPM Invasive Species Workshop



Cooperative Agricultural Pest Survey



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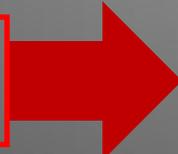
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**ID-ing Mile-a-Minute Vine in Winter**

Saucer-shaped leaf is retained in winter

Downward facing barbs

Invasive Plant Recently Found in New England; Sightings Urgently Sought

Please report finds to:  
RI Natural History Survey  
[invasives@rinhs.org](mailto:invasives@rinhs.org)  
401.874.5800

Over two dozen presentations, including at the Land & Water Summit

## **MOST LEAST WANTED:**

Seen It? Call 401-874-5807 or email [invasives@rinhs.org](mailto:invasives@rinhs.org) TODAY!  
The site may qualify for free inventory and/or invasive control by RINHS

### Garlic Mustard (*Alliaria petiolata*)

Area of Concern: WESTERN RI

Garlic mustard is a biennial herb native to Europe. This species is tolerant of many growing conditions, but prefers moist soils and can easily persist in the understory of a forest. Chemicals in garlic mustard's roots inhibit the growth of fungus necessary for the uptake of nutrients by native plants. The first year's growth produces evergreen rosettes. These are followed in the second year by a stalk up to 3' high. The leaves are garlic scented. Garlic mustard has a 4-petal white flower and produces a characteristic mustard seed pod. Avoid infested areas when the exploding pods are ripe to prevent spreading the seeds. It is currently thought to be limited to coastal areas in Rhode Island.

More images: <http://www.invasive.org/species/subject.cfm?ai=3005>

The Forest Health Works Project (FHWP), a partnership of the RI Department of Environmental Management and the RI Natural History Survey, is a new state effort to control invasive plants that threaten forest health. More info at [www.rinhs.org](http://www.rinhs.org)

The FHWP is funded by the U.S. Forest Service through a grant under the American Recovery and Reinvestment Act of 2009.

# Invasive Species Preparedness 2010

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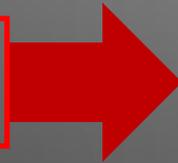
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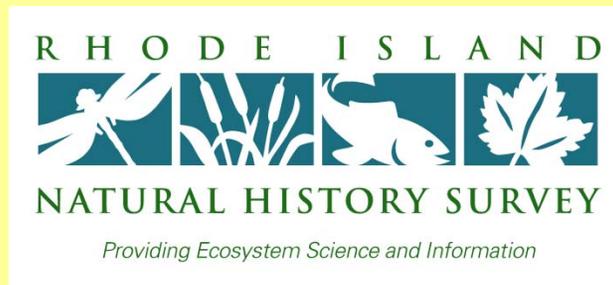
## Invasive Species Indicator Project

*Earth Day at the State House  
Tuesday, April 27, 2011, 2:00 p.m.*

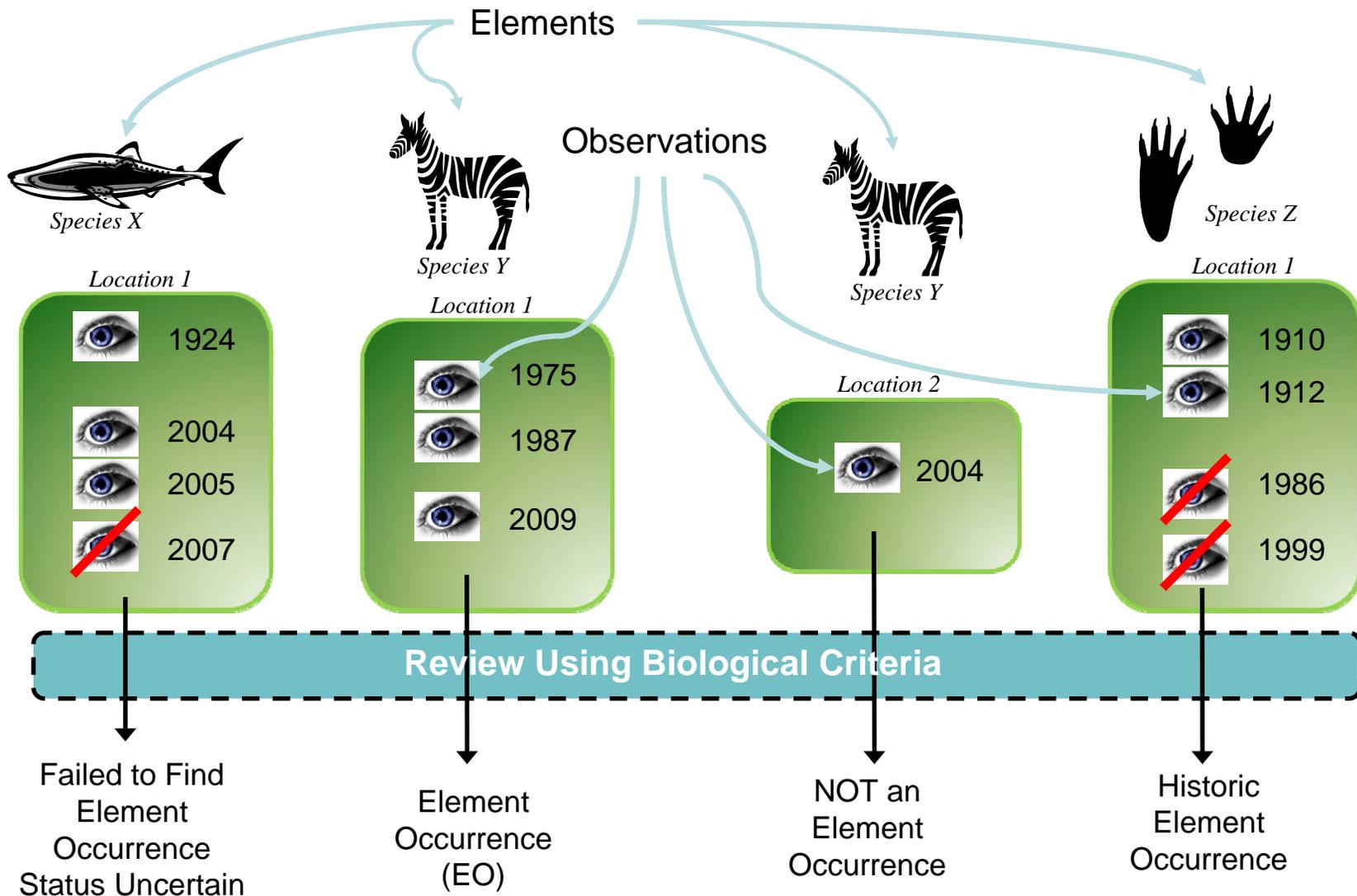


# Biodiversity Data Management

Thanks to RICSC support



# Tracking Species Viability in Space and Time





Species You Want to Track



Observations of Species at a Particular Place and Time

**E.O.**

Places with Viable Populations of a Species



Species You Want to Track

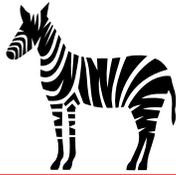


Observations of Species at a Particular Place and Time

**E.O.**

Places with Viable Populations of a Species

Genus and species  
Common name  
Taxonomic serial number  
National status  
State status  
Other statuses



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Places with Viable Populations of a Species

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Who  
Where  
When  
Description  
    How many indivs  
    Threats  
    Observed extent  
Evidence  
    Photos, specimens, etc.  
Notes  
Sensitivity  
Quality control  
Versioning





Species You Want to Track



Observations of Species at a Particular Place and Time

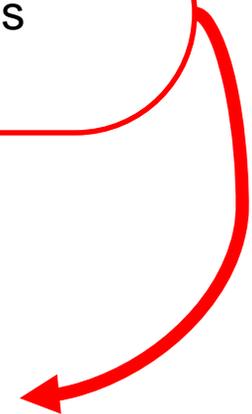
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Places with Viable Populations of a Species

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- Viability criteria
- Scientific judgment
- Inferred extent
- Feeds back into
  - which species you track





Species You Want to Track



Observations of Species at a Particular Place and Time

**E.O.**

Places with Viable Populations of a Species

### Minimum Data

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 Photos, specimens, etc.  
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## Data Form (early version)

HeritageIDb: Database (Access 2002 - 2003 file format) - Microsoft Access

Security Warning: Certain content in the database has been disabled. Options...

frm\_new\_record | frm\_existing\_records

RINHS Heritage Species Observation Records

Genus:  Latitude in decimal degrees, WGS84:

Species:  Longitude in decimal degrees, WGS84:

Taxonomic Serial Number (ITS):  Locational accuracy (include units):

National protection status:  Path to photo voucher:

State protection status (RI):  Heritage ID Number:

Species of greatest concern:  Element Occurrence Code:

Nativity:  Element Code:

Date observation was made:  Person entering data:

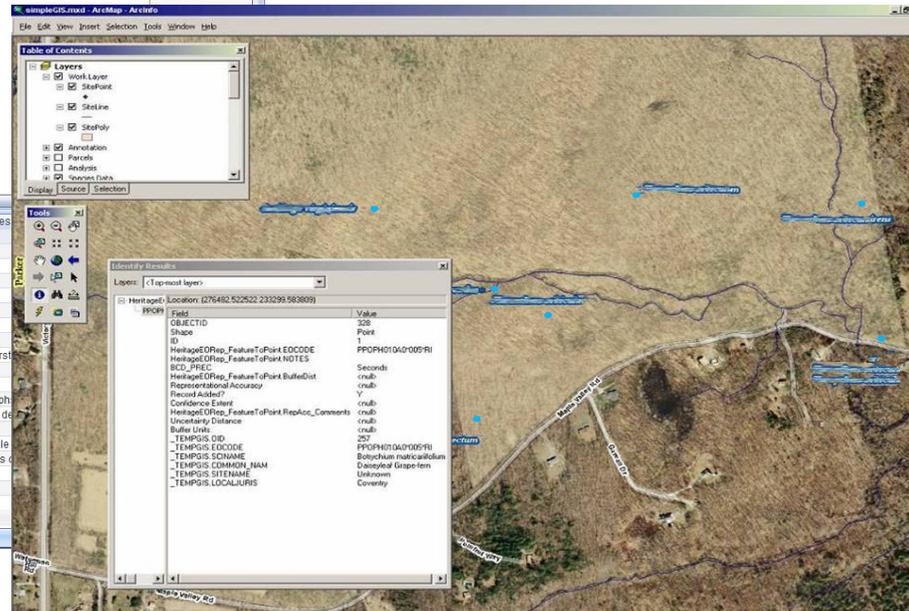
Observer first name:  Data entry date:

Heritage ID Number	Longitude in c	Locational accur	Latitude in de	Element Occurrence Code	Path to photo	Element Coc	Notes
1	-71.573278		41.46543	AAAAA01100*001*RI		AAAAA01100	
1	-71.573278		41.46543	AAAAA01100*001*RI		AAAAA01100	
2	-71.698377		41.80458	AAAAA01100*002*RI		AAAAA01100	
2	-71.698377		41.80458	AAAAA01100*002*RI		AAAAA01100	
3	-71.724334		41.820291	AAAAA01100*003*RI		AAAAA01100	
3	-71.724334		41.820291	AAAAA01100*003*RI		AAAAA01100	
4	-71.709888		41.489204	AAAAA01100*004*RI		AAAAA01100	
4	-71.709888		41.489204	AAAAA01100*004*RI		AAAAA01100	
5	-71.17564		41.492765	AAAAA01100*005*RI		AAAAA01100	Population first
5	-71.17564		41.492765	AAAAA01100*005*RI		AAAAA01100	
5	-71.17564		41.492765	AAAAA01100*005*RI		AAAAA01100	
6	-71.162701		41.603599	AAAAA01100*006*RI		AAAAA01100	3 metamorph
6	-71.162701		41.603599	AAAAA01100*006*RI		AAAAA01100	Adult found de
6	-71.162701		41.603599	AAAAA01100*006*RI		AAAAA01100	
6	-71.162701		41.603599	AAAAA01100*006*RI		AAAAA01100	Large female
7	-71.657022		41.436151	AAAAA01100*007*RI		AAAAA01100	Metamorphs
7	-71.657022		41.436151	AAAAA01100*007*RI		AAAAA01100	
7	-71.657022		41.436151	AAAAA01100*007*RI		AAAAA01100	
8	-71.702487		41.39802	AAAAA01100*008*RI		AAAAA01100	

Records: 14 | 1 of 4564 | No Filter | Search

Unique system-generated ID for each EO. RI\_Heritage\_GE.tbl:HeritageEO

## Mapping



## AUDIENCE PARTICIPATION TIME

How will YOU get access? In what form will the data be available to you?

What's the future of E.O.s?

What species to track besides Heritage listed species?

What priority to put on revisiting sites?

How to track natural communities?

What other information might be useful?