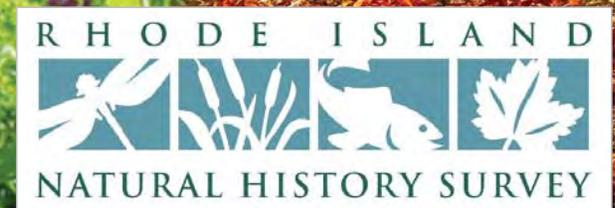


# A Conservation Toolbox from the “RICSC”

with contributions from  
David Gregg (RINHS), Scott Ruhren (ASRI), Rupert Friday (RILTC),  
Carol Trocki, and Pete August,  
plus updates on the RI Conservation Stewardship Collaborative

**RICSC**



[www.rinhs.org](http://www.rinhs.org)

# Rhode Island Conservation Stewardship Collaborative (RICSC) *Founded 2007*

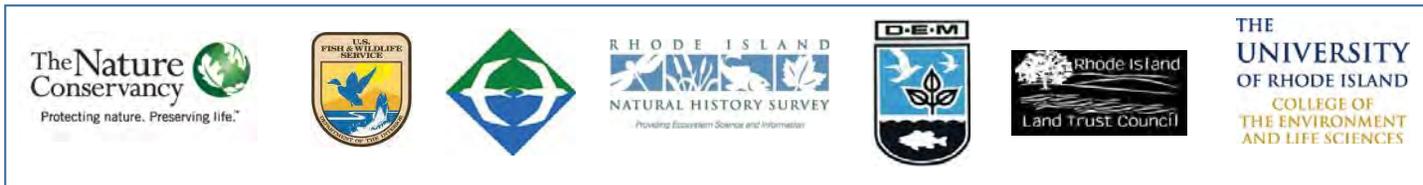


## **CSC Mission:**

To advance long-term protection and stewardship of terrestrial, aquatic, coastal, estuarine, and marine areas in Rhode Island that have been conserved by fee, easement, or other means.

## R. I. Conservation Stewardship Collaborative ([www.ricsc.org](http://www.ricsc.org))

- 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



WE INTERRUPT THIS PRESENTATION WITH AN URGENT MESSAGE

THERE IS AN INVASIVE INSECT APPROACHING RHODE ISLAND

RESIDENTS SHOULD BE ON THE LOOKOUT

... ..

THIS IS NOT A TEST...

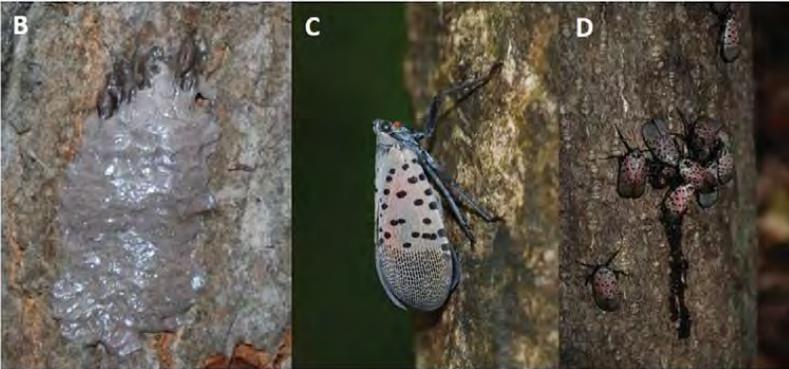


Photo courtesy: Lawrence Barringer,  
 Pennsylvania Department of Agriculture

- A. 1<sup>st</sup>-4<sup>th</sup> instars with wings
- B. Egg masses covered in
- C. Lateral view
- D. Adult congregating on plant sap





[www.dem.ri.gov/pestalert](http://www.dem.ri.gov/pestalert)

D. Adult congregating on plant sap



**WE NOW RETURN YOU TO YOUR REGULARLY SCHEDULED PROGRAM**

# Youth Conservation League

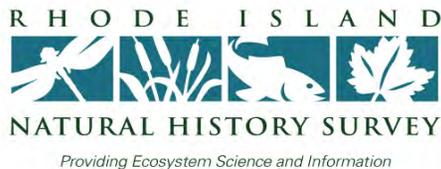


*Preparing tomorrow's conservationists since 2010*

# Youth Conservation League

“...provides hands-on environmental stewardship and learning opportunities to youths while completing important and needed conservation and natural resource management work.”

(Mission Statement 2010)



# Protecting and Restoring Habitats



# Wildlife Protection



# Wildlife Protection



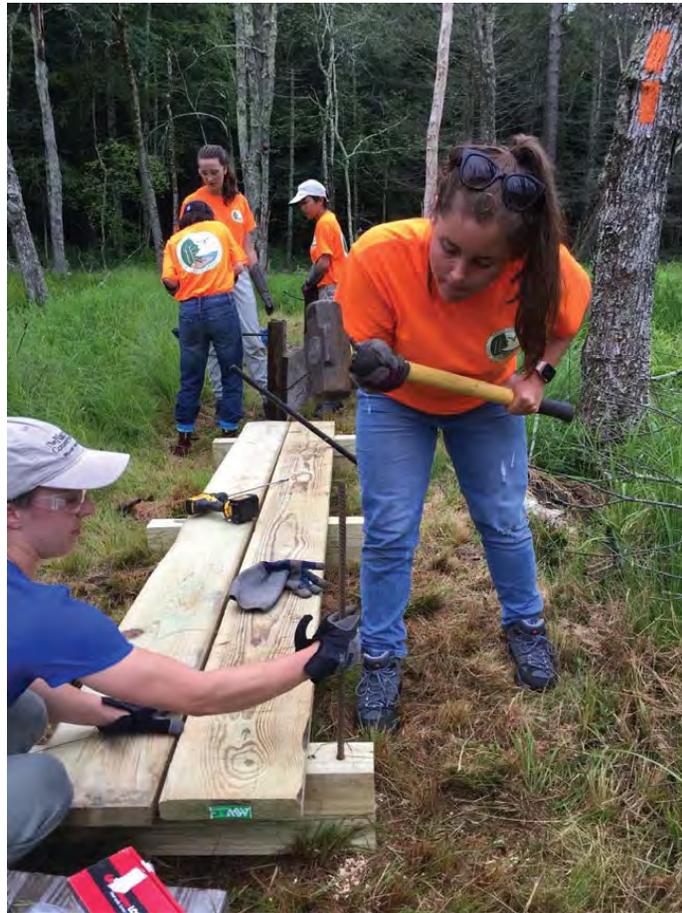
# Trail Maintenance



# Trail Maintenance



# Trail Maintenance



# Invasive Species



# Invasive Species



# Tales from the front...



Deanna Phan,  
YCL Crew & Staff







Want to work for YCL this summer (crew and supervisors)?



2020 applications coming soon at [www.asri.org](http://www.asri.org)

# YCL and your land trust?

## “Crew in Your Community”



- Full-day, crew of 8, working alongside your land trust
- Raffle for a free CIYC day!

# What next?

Is your land trust  
interested?

Contact me:

Scott Ruhren, Senior  
Director of Conservation  
– Audubon Society of  
Rhode Island

[sruhren@asri.org](mailto:sruhren@asri.org)



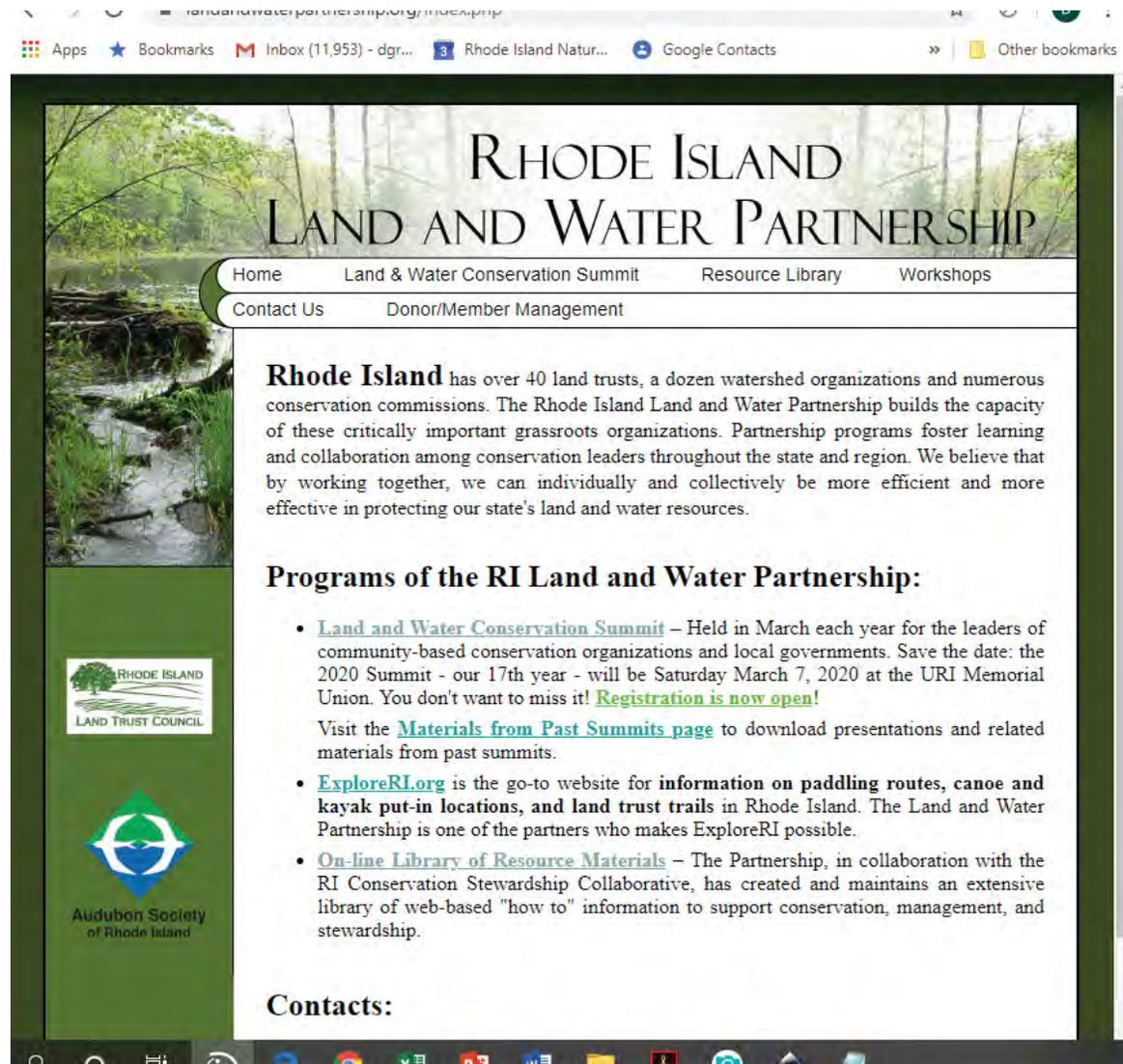
## Other CSC-funded Resources:



- Land & Water Partnership Resources Library
  - Baseline Document Reports (BDR)
  - Management Plans
  - Monitoring Reports
- Natural History Survey Web Resources
  - Invasive Plant Strategies
  - Ecological Community Classifications (RIECC)
  - Indicators of Biodiversity Value Rapid Assessment
  - Rare species (natural heritage) data
- GIS resources via URI Environmental Data Center
  - ArcGIS compendium of map layers
  - Field navigation, mapping, and data collection

# Rhode Island Land & Water Partnership

www.landandwaterpartnership.org



RHODE ISLAND  
LAND AND WATER PARTNERSHIP

Home Land & Water Conservation Summit Resource Library Workshops  
Contact Us Donor/Member Management

**Rhode Island** has over 40 land trusts, a dozen watershed organizations and numerous conservation commissions. The Rhode Island Land and Water Partnership builds the capacity of these critically important grassroots organizations. Partnership programs foster learning and collaboration among conservation leaders throughout the state and region. We believe that by working together, we can individually and collectively be more efficient and more effective in protecting our state's land and water resources.

**Programs of the RI Land and Water Partnership:**

- [Land and Water Conservation Summit](#) – Held in March each year for the leaders of community-based conservation organizations and local governments. Save the date: the 2020 Summit - our 17th year - will be Saturday March 7, 2020 at the URI Memorial Union. You don't want to miss it! [Registration is now open!](#)  
Visit the [Materials from Past Summits page](#) to download presentations and related materials from past summits.
- [ExploreRI.org](#) is the go-to website for **information on paddling routes, canoe and kayak put-in locations, and land trust trails** in Rhode Island. The Land and Water Partnership is one of the partners who makes ExploreRI possible.
- [On-line Library of Resource Materials](#) – The Partnership, in collaboration with the RI Conservation Stewardship Collaborative, has created and maintains an extensive library of web-based "how to" information to support conservation, management, and stewardship.

**Contacts:**

RHODE ISLAND  
LAND TRUST COUNCIL

Audubon Society  
of Rhode Island

# Rhode Island Land & Water Partnership

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Audubon Society  
of Rhode Island

# Resource Library



Excel document, make sure to save it to your own computer if you want to edit it. Changes you make will be lost if you do not save a copy of the document to your own computer.

If you have suggestions or have documents you would like to contribute, please [contact us!](#)

- + [Baseline Documentation/ Property Inventory/Mapping Resources](#)
- + [Clean Up Projects](#)
- + [Donor/Member Management Materials \(incl. Salesforce Tip Sheets and Recipes\)](#)
- + [Easement and Property Monitoring](#)
- + [Forest Management](#)
- + [Funding & Technical Assistance](#)
- + [General Land & Water Conservation](#)
- + [Habitat Restoration](#)
- + [Invasives](#)
- + [Management Plans](#)
- + [Safety Information](#)
- + [Signage](#)
- + [Species ID](#)
- + [Trails - Land](#)
- + [Trails - Water](#)
- + [Volunteers & Volunteer Management](#)
- + [Waivers](#)
- + [Water Quality Monitoring](#)

Resources made available at this website have been provided in the spirit of networking among our nonprofit organizations in an effort to inform each other of new developments, best practices and to generally spare each other from 'reinventing the wheel.' In some cases, links are provided to copyrighted websites. Please contact that website's organization for any

[www.landandwaterpartnership.org](http://www.landandwaterpartnership.org)

# Resource Library

www.landandwaterpartnership.org

Land and Water Partnership Society  
Rhode Island

If you have suggestions or have documents you would like to contribute, please [contact us!](#)

**Baseline Documentation/ Property Inventory/Mapping Resources**

**Mapping Resources**

- ★ Baseline Documentation for Protected Lands, A presentation from The 2008 Land and Water Conservation Summit by Scott Ruhren and Carol Lynn Trocki. Includes a checklist. ([PDF](#))
- ★ CSC Protocol: A standard protocol for documenting conservation values with a Baseline Documentation Report on protected land in RI. ([PDF](#))  
Source: [Rhode Island Conservation Stewardship Collaborative](#)
- ★ Model Baseline Documentation Report prepared by Carol Lynn Trocki, from 2008 Land and Water Conservation Summit ([PDF](#))
- ★ Stewardship Guidelines - includes a model BDR outline ([PDF](#))  
Source: [Clean Water Management Trust Fund](#)
- A Landowner's Guide to New England Cottontail Habitat Management ([PDF](#))  
Source: [Environmental Defense Fund](#)
- Baseline Documentation Using the CSC Protocol: Example from the Ballard Property in Portsmouth, a large parcel of land on Prudence Island with Pine Barren habitat. ([PDF](#))  
Source: [Rhode Island Conservation Stewardship Collaborative](#)
- Baseline Documentation Using the CSC Protocol: Example from the Bradner Preserve in Richmond, a 63-acre parcel with a combination deciduous and mixed forest, ATV issues and trail stream crossings. ([PDF](#))  
Source: [Rhode Island Conservation Stewardship Collaborative](#)
- Baseline Documentation Using the CSC Protocol: Example from the Hopkins Property in Foster, a 25-acre parcel with riverine habitat and a trail system. ([PDF](#))  
Source: [Rhode Island Conservation Stewardship Collaborative](#)
- Baseline Documentation Using the CSC Protocol: Example from the Ray Preserve in Westerly, a 15-acre parcel on the barrier beach side of Winnapaug Pond. ([PDF](#))  
Source: [Rhode Island Conservation Stewardship Collaborative](#)
- CE and Baseline documentation report form ([PDF](#))  
Source: [New Hampshire Office of Energy and Planning](#)
- Inventorying, Monitoring, and Managing Natural Resources on Conservation Lands, a RI Conservation Stewardship Collaborative manual by Scott Ruhren Audubon

# Resource Library

www.landandwaterpartnership.org



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- [+ Clean Up Projects](#)
- [+ Donor/Member Management Materials \(incl. Salesforce Tip Sheets and Recipes\)](#)
- [- Easement and Property Monitoring](#)

- ★ [Annual Monitoring Checklist Protocol \(PDF\)](#)

Source: [Rhode Island Conservation Stewardship Collaborative](#)

- ★ [Annual Monitoring Checklist Template \(Long Form\) \(Word\)\(PDF\)](#)

Source: [Rhode Island Conservation Stewardship Collaborative](#)

- ★ [Annual Monitoring Checklist Template \(Short Form\) \(Word\)\(PDF\)](#)

Source: [Rhode Island Conservation Stewardship Collaborative](#)

- [A Guide to Conservation Easement Monitoring: frequency, scheduling, procedure, follow-up \(PDF\)](#)

Source: [Mid-Atlantic Regional Partnership Committee](#)

- [Annual Property Monitoring Report Form \(Word\)\(PDF\)](#)

Source: [Barrington Land Conservation Trust](#)

- [Avoiding, Enforcing, Defending: What Should You Know About Dealing With Conservation Easement Violations? A presentation from the 2014 Land and Water Conservation Summit by Carol Lynn Trocki, Chuck Allott, and Greg Schultz \(PDF\)](#)

- [Basic map and compass skills \(PDF\)](#)

Source: [New Hampshire Office of Energy and Planning](#)

- [Easement monitoring checklist \(PDF\)](#)

Source: [New Hampshire Office of Energy and Planning](#)

- [Form to update your Stewardship Volunteers' Information \(Word\)\(PDF\)](#)

Source: [Barrington Land Conservation Trust](#)

- [How to read a survey plan by the Aquidneck Land Trust \(PDF\)](#)

Source: [Aquidneck Land Trust](#)

- [Informational booklet given to landowners of Conservation Easements \(PDF\)](#)

Source: [Little Traverse \(Michigan\) Conservancy](#)

- [Land Trust Alliance National Standards for Monitoring: Practice 11C: Easement Monitoring \(PDF\)](#)

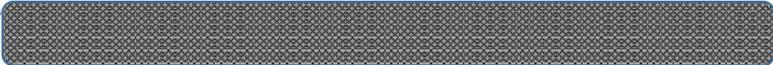
Source: [Land Trust Alliance](#)

# Resource Library

▣ [Habitat Restoration](#)

▣ [Invasives](#)

▣ [Management Plans](#)

- ★ A standard protocol and guidelines for developing management plans for conserved lands developed by the Conservation Stewardship Collaborative. ([PDF](#))  
Source: [Rhode Island Conservation Stewardship Collaborative](#)
- ★ Basic components of a management plan as required by the MA Open Space Grant program ([PDF](#))  
Source: [Common Pasture](#)
- ★ Creating a Habitat-Based Management Plan for your Open Space - Step By Step Outline for a Management Plan ([website](#))  
Source: [Connecticut NEMO \(Nonpoint Education for Municipal Officials\)](#)
- ★ 
- ★ Management plan guidelines from DEM's Local Open Space Grant Program ([PDF](#))  
Source: [RI Department of Environmental Management](#)
- A Land Manager's Guide to Improving Habitat for Tanagers and other Forest-interior Birds. For advanced land managers ([PDF](#))  
Source: [Cornell Lab of Ornithology](#)
- An example of a BDR and management plan following RI CSC guidelines. This plan is for the Noyes Neck Farm Property in Westerly. ([PDF](#))  
Source: [Rhode Island Conservation Stewardship Collaborative](#)
- An example of a BDR and management plan following RI CSC guidelines. This plan is for the Pelloni Diamond Hill Property in Hopkinton. ([PDF](#))  
Source: [Rhode Island Conservation Stewardship Collaborative](#)
- Collection of resources for managing grasslands for bobolinks and other wildlife ([website](#))
- Developing Management Plans for Conservation Lands: A presentation from The 2015 Land and Water Conservation Summit by Linda Steere Carol Lynn Trocki ([PDF](#))
- Example of Land Management strategies and priorities - by Clarkson Collins, Land Management Director, South Kingstown Land Trust. ([PDF](#))  
Source: [South Kingstown Land Trust](#)

[www.landandwaterpartnership.org](http://www.landandwaterpartnership.org)

# Baseline Documentation Report (“BDR”)

Carol Lynn Trocki 2017 (ver. 2.1)  
with Scott Ruhren

Rhode Island Conservation Stewardship Collaborative  
**Baseline Documentation and Inventory Protocol, Version 2.1**



September 2014  
Revised June 2017

Carol Lynn Trocki  
Conservation Biologist

Scott Ruhren, Ph.D.  
Senior Director of Conservation



55 East Main Road  
Little Compton, RI 02837  
ctrocki@gmail.com / (401) 952-2937



Audubon Society of Rhode Island  
12 Sanderson Road  
Smithfield, RI 02917-2600



**Baseline Documentation for Protected Lands**

Carol Lynn Trocki,  
*Conservation Biologist*  
&  
Scott Ruhren, *Director of Conservation ASRI*

March 15, 2008



**Workshop Topics**

What should be included in a Baseline Documentation Report (BDR)?

**BASILINE DOCUMENTATION REPORT**  
Background Information  
[Redacted] Property  
Little Compton, Rhode Island

**CURRENT LANDOWNER:** [Redacted]

**LOCATION OF PROPERTY:**

**Street Address:** [Redacted]

**Municipality:** Little Compton  
**County:** Newport  
**State:** Rhode Island  
**Plat/Lot Information:** Lots 41, 27, and a portion of Lot 21 of Little Compton Tax Assessor's Plat 5 (Figure 1)

**PROPERTY DESCRIPTION:**

**Acreage:** 24.80 acres ± (Figure 2)

**Prior Land Uses:** Based on the examination of historic aerial photography, it appears that the majority of the Premises were used for agricultural purposes until sometime after 1939. In 1939 aerial photos, the earliest for the State, most of the Premises are cleared for agriculture with only the westernmost portion in shrub habitat. Aerial photographs from 1962 show almost the entire Premises to be vegetated. The Premises appear to have been maintained in a condition similar to today since the 1970s.

**Current Land Uses:** Currently, the Premises are owned by Christopher T. and Wendy S. Born and exist in an undeveloped state. The Premises contain mainly deciduous scrub-shrub swamp and wet meadow habitat, with some forested, marsh, and open water areas and several small upland patches.

**Proposed Future Uses:** It is the purpose of the Conservation Easement to assure that the Premises will be retained forever in its open, natural, scenic, agricultural and undeveloped condition and to prevent any use of the Premises that will significantly impair or interfere with the conservation values of the Premises.

**Conservation Values:**  
The Premises are located in Little Compton, Rhode Island on West Main Road between Church's Lane and Taylor's Lane (Figures 3, Figure 4). The Premises contain mainly deciduous scrub-shrub swamp and wet meadow habitat, with some forested, marsh, and

5

# Ecological Inventory and Management of Protected Lands

*NRS 567*

3 seminars: 2016, 2018, 2020

49 URI students

participate in board meetings

& special events w/ land trusts

32 BDR's so far, more coming

Carol Lynn Trocki



THE  
UNIVERSITY  
OF RHODE ISLAND  
DEPARTMENT OF  
NATURAL RESOURCES  
SCIENCE

## **PARTICIPATING LAND TRUSTS**

Barrington Land Conservancy Trust

Cumberland Land Trust

Scituate Land Trust

Bristol Land Conservancy Trust

Smithfield Land Trust

Weekapaug Foundation for Cons.

Westerly Land Trust

Glocester Land Trust

Narrow River Land Trust

Land Conservancy of North Kingstown

Foster Land Trust

Richmond Rural Land Trust

Tiverton Open Space Commission

Foster Land Trust

South Kingstown Land Trust

Hopkinton Land Trust

# rinhs.org/invasive-species-portal/

The screenshot shows the Rinhs.org Invasive Species Portal. At the top, there is a navigation bar with links for Home, About Us Projects, Partners & Resources, Biodiversity Information, and Invasive Species Portal. Below this is a search bar and social media links for RSS, Facebook, Blogs, and Contact Us. The main content area features a sidebar on the left with links to Invasive Species Portal, Invasive Species Lists, Invasive Species Resources, RI Invasive Species Council, and Species Pages. The main content area has a title 'Invasive Species Portal' and a sub-header 'Invasive Species cross-cut many of the things RINHS does, from conservation land stewardship to wetland condition assessments and from biodiversity management to native plant promotion. Many RINHS partners are also working on invasive species issues. The Invasive Species Portal is intended to organize that diversity of information and connections without reproducing them all. Links here take you to all kinds of web-based resources within and outside of RINHS.' Below this is a definition of an invasive species and a list of characteristics. A photograph of a European spindlewood tree (Euonymus europaeus) is shown with a caption. The bottom of the page includes sections for 'Latest Blog Posts' (Marine Mammals of Rhode Island, Part 14, Gray Seal) and 'The Newport Natural History Society, 1883-1940'.



## Invasives Preparedness for Land Stewards

Handout for 2014 Land and Water Conservation Summit,  
March 8, 2014,  
Memorial Union, University of Rhode Island, Kingston,

by Hope Leeson and David W. Gregg

### Abstract:

Every day, it seems, there are new invasive species threats, new research on their ecological effects, and new developments for their control. **Don't let the flood of information paralyze you into inaction.** For local groups managing conservation land, the situation won't be improved by delay and there are plenty of practical steps to take to improve your group's invasive species preparedness and to begin responding to existing problems. We prepared this handout to encourage good strategic invasives preparedness and practical invasives monitoring and control activities that you can initiate to affect the situation on the ground. Emphasis will be on plants and on key elements of an invasives strategy, simple first steps for monitoring and control, and resources available on the web and elsewhere.

Visit RINHS at [www.rinhs.org](http://www.rinhs.org) or [facebook.com/rinhs](https://facebook.com/rinhs).  
See RINHS videos on invasive control at [youtube.com/rinaturalhistory](https://youtube.com/rinaturalhistory)

### Summary:

1. What are invasive species and why is invasive control important?
2. Invasive Preparedness Strategy Outline
3. The Easy Eight--eight species even a beginner can take on
4. The Secondary Six--six species that require a little more effort
5. Seven things your group can do this year to improve your invasive preparedness

# "RIECC"

## Rhode Island Ecological Community Classification

By

Richard W. Enser



Coastal Plain Pastland, Granville Fox, RI

### Project Collaborators

RI Natural History Society  
David Greig

RI Department of Environmental Management  
Janet Coit, Cathy Sparks, Chris Raithe, Brian Telford

University of Rhode Island  
Peter August, Charles

The Nature Conservancy  
Scott Comings, Keith

### Supported by

Rhode Island Conservation Society

Citation Format: Enser, R., D. Gregg, C. Sparks, P. Telford, B. Payton, C. Brown, C. LaBasil, S. C. Ecological Community Classification. Technical Survey, Kingston, RI. (available at: www.rinhs.org)

4 October 2012

## Rhode Island Ecological Communities Classification – Outline and Organizational Scheme

### Organizational Scheme and Classificatory Nomenclature

I, II, III, etc.: = "SYSTEM"

A., B., C., etc.: = "CLASS"

1., 2., 3., etc.: = "COMMUNITY"

a., b., c., etc.: = "TYPE"

(1), (2), (3), etc.: = "SUBTYPE"

### I. UPLAND SYSTEM

#### A. Open Uplands (Grassland and Shrubland)

1. Coastal Grassland
  - a. Maritime Beach Strand
  - b. Maritime Herbaceous Dune
  - c. Maritime Grassland
2. Coastal Shrubland
  - a. Maritime Shrub Dune
  - b. Maritime Shrubland
3. Ruderal Grassland/Shrubland
  - a. Old Field

### D. Mixed Deciduous/Coniferous Forests.

1. **Mixed Oak/Pitch Pine Forest.** Forest community on well-drained sandy soils of glacial outwash plains and moraines, and also on thin rocky soils of ridgetops. Dominant trees are pitch pine (*Pinus*) at >25% cover mixed with one or more oaks (*Quercus*), primarily white, black and scarlet. A well-developed shrub layer usually contains scrub oak, highbush blueberry (*Vaccinium*) and Huckleberry (*Gaylussacia*).
2. **Mixed Oak/White Pine Forest.** Forest community on well-drained soils with a canopy of mixed oak and 40-50% cover of white pine (*Pinus*). Patches with >50% cover of white pine may also be found, but the overall pattern in larger stands is an even mix of oaks and pine. Shrub and ground layers are generally similar to oak-dominated forests, although understory cover is diminished in closed canopy stands of pine.
3. **Hardwood/Hemlock Forest.** Forest community similar to the above-referenced Hemlock/Hardwood Forest except that in this mixed community hemlock occurs at <50% cover. The greater percentage of hardwoods, primarily yellow birch (*Betula*), beech (*Fagus*), and red and sugar maple (*Acer*), in the canopy layer encourages a more diverse understory than the closed canopy hemlock-dominated forests.

### E. Plantation and Ruderal Forests.

1. **Tree Plantation.** Land cover is apparently modified and appears as a managed tree plantation, usually coniferous, even-aged trees planted in rows. Species may be native or non-native and include various spruces (*Picea*), pines (*Pinus*), firs (*Abies*), and larch (*Larix*).

<http://rinhs.org/wp-content/uploads/2012/05/RIECC-Final.pdf>

# Rapid Assessment of Biodiversity Value

(available on the RINHS publications webpage)

ver. 5 (11/13/2019)

## Indicators of Biodiversity Value Checklist for Rhode Island

by  
David W. Gregg, Ph.D., for Rhode Island Natural History Survey

**INTRODUCTION:**  
Conservation of “biodiversity” is a frequently expressed goal of land conservation and so methods for assessing biodiversity are an important part of initial prioritization of land acquisition as well as of ongoing conservation land monitoring. For the present purposes, biodiversity is an informal label that can include the presence of rare species or rare natural communities, unusually high species richness, or unusually high habitat heterogeneity.

Two traditional methods of biodiversity assessment focus either on predicting species richness with models composed of indicators or on using taxonomic experts who either document species directly or predict their presence based on subjective, qualitative evaluation of the site. At the trained ends of land trust activity in Rhode Island, conservation parcels between 10 and 100 acres are often the focus of land trust activity. For these parcels, a rapid assessment method could be more useful than a full-scale assessment. The goal of this tool is to provide a quick overview of the character and features present on a piece of land that has the potential for supporting higher (or lower) than average species biodiversity. This tool is intended to be used by land trust staff or other interested parties in the field to quickly assess a site subjectively and contribute to the species biodiversity of its surroundings. The tool is intended to be used by land trust staff or other interested parties in the field to quickly assess a site subjectively and contribute to the species biodiversity of its surroundings.

**USERS GUIDE:**  
This tool—this Rapid Assessment Method (RAM)—is intended to provide a quick overview of the character and features present on a piece of land that has the potential for supporting higher (or lower) than average species biodiversity. This tool is intended to be used by land trust staff or other interested parties in the field to quickly assess a site subjectively and contribute to the species biodiversity of its surroundings.

This RAM is not intended to produce comprehensive or exhaustive assessments. It is intended to be used by land trust staff or other interested parties in the field to quickly assess a site subjectively and contribute to the species biodiversity of its surroundings.

The target USER is the scientifically literate land trust volunteer or staff member who is trained in the use of this GUIDE. It is understood that many

ver. 5 (11/13/2019)

Score: 0 = not present 1 = present/detectable 2 = a substantial feature here  
3 = THE major feature here N/A = unknown/no data

Add notes to cells to indicate what you're seeing that makes you give it a particular score

E. Terrestrial Habitat Features	1	2	3	4	5	6
i) extremely steep slopes (>50°)						
ii) boulders/ledge/cliff/scree						
iii) hilltop/eminence (bare or wooded)						
iv) event- or process-dependent community						
(1) fire (e.g. pitch pine/scrub oak, barren)						
(2) pasture/hay/meadow						
(3) early successional habitat/shrubland (still having non-forest character)						
(4) storms/flooding (e.g. beaver meadow, seasonally exposed pond shore, wind exposure)						
(5) sunny mineral soil/sand/beach/dune						
v) edge habitat/transition zone						
vi) pollinator habitat (concentrations of flower sources, nest sites totaling >0.25 acres)						
vii) noteworthy trees						
(1) closed forest canopy						
(2) large/old trees						

F. List any RI Wildlife Action Plan (WAP) Key Habitats present (follow link to list):

\_\_\_\_\_

\_\_\_\_\_

TOTAL NUMBER PRESENT \_\_\_\_\_

	5	6

G. Other Considerations (Score as 1 = yes; 0 = no)

i. Abuts one or more other conservation parcels \_\_\_\_\_

ii. Connects two or more disconnected conservation parcels \_\_\_\_\_

iii. Buffers an adjacent parcel of known high biodiversity value \_\_\_\_\_

iv. Contains a corridor feature (stream, ridge/gully, train track, powerline) \_\_\_\_\_

v. Oasis, i.e. highly diff. from adjacent parcels or otherwise isolated \_\_\_\_\_

vi. Has a grassland/meadow >10 acres (or abutting one & totaling >15 acres) \_\_\_\_\_

vii. Has a closed canopy forest >10 acres (or abutting one & totaling >15 acres) \_\_\_\_\_

TOTAL NUMBER PRESENT \_\_\_\_\_

III. LOCALE ASSESSMENTS (at least one is required; think about which to pick in advance using aerial imagery (e.g. RIGIS or Google Earth). Attach an image and indicate roughly where your locales are. Use a descriptive name to help remember each; for small features give actual Lat/Long, for large ones give Lat/Long of approx. centroid; size is meant to be approximate.)

1: Name \_\_\_\_\_ Lat/Long \_\_\_\_\_ Size \_\_\_\_\_

2: Name \_\_\_\_\_ Lat/Long \_\_\_\_\_ Size \_\_\_\_\_

3: Name \_\_\_\_\_ Lat/Long \_\_\_\_\_ Size \_\_\_\_\_

CC BY-NC-SA

**SE**—*Eupatorium novae-angliae*  
New England boneset



**SC**—*Asclepias tuberosa*  
orange milkweed



## RARE SPECIES

(a.k.a. “heritage” species)

in RHODE ISLAND

**SE**—*Crocantthemum dumosum*  
bushy frostweed, bushy rockrose



**ST—*Desmodium sessilifolium***  
sessile-leaved tick trefoil





**Rhode Island Natural Heritage Program –  
Rare Plant Element Occurrence Record**

RINHP is established pursuant to state law (RIGL 20-14-20-17, inter alia) and operated under an agreement among RI Natural History Survey, URI-EDG, The Nature Conservancy, and RIDEM

OFFICE USE ONLY: Date Received: \_\_\_\_\_  
New: \_\_\_\_\_ Deleted: \_\_\_\_\_ Transferred: \_\_\_\_\_  
Entered into DB: \_\_\_\_\_ Mapped: \_\_\_\_\_ QC: \_\_\_\_\_

Please submit field forms, a map (USGS, Google Earth, etc.), photos, and other supporting documentation to Rhode Island Natural History Survey, PO Box 1858, Kingston, RI 02881, or by email to [rihnp@rihs.org](mailto:rihnp@rihs.org)

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**General Element Data:**

Element Scientific Name: \_\_\_\_\_ Element Occurrence # (if known): \_\_\_\_\_  
 Element Found: Yes  No  Element Code (if known): \_\_\_\_\_

Observed By: \_\_\_\_\_ Observation Date: \_\_\_\_\_ Today's Date: \_\_\_\_\_  
 Observer's Address: \_\_\_\_\_  
 Observer's Email Address: \_\_\_\_\_ Telephone: \_\_\_\_\_  
 Approximate Time Spent at Site: \_\_\_\_\_ Site Name: \_\_\_\_\_ USGS Topo Name: \_\_\_\_\_  
 Town: \_\_\_\_\_ County: \_\_\_\_\_  
 GPS Coordinates: (at, or near center of population): \_\_\_\_\_  
 system (circle one): UTM  LAT/LONG  RI State Plane  Datum: \_\_\_\_\_  
 Directions to element site (if found) or search area (if not found): \_\_\_\_\_

Photos taken: Yes  No  (Please attach photos to form or email ([rihnp\\_photos@rihs.org](mailto:rihnp_photos@rihs.org))  
 digital photos, indicating your name, species name, locality, and date collected)

Specimen taken: Yes  No  If yes: Collection #: \_\_\_\_\_ Repository: \_\_\_\_\_

---

**Biology:**

Approximate Area occupied by population: \_\_\_\_\_ :  m<sup>2</sup>  hectares  km<sup>2</sup>  acres  miles<sup>2</sup> of potential habitat

Population Size:  
 Total number of *genets* (genetically distinct, clearly separate individuals): \_\_\_\_\_  precise count  estimate  
 Total number of *ramets* (e.g., clonal stems or shoots of single organisms): \_\_\_\_\_  precise count  estimate

Population Structure (check all that apply):

<p><b>Age Classes Present:</b></p> <input type="checkbox"/> Seedlings <input type="checkbox"/> Immature plants <input type="checkbox"/> Mature plants <input type="checkbox"/> Plants of unknown age	<p><b>Reproductive Condition of the Population on this Date:</b></p> <input type="checkbox"/> Vegetative (in leaf) <input type="checkbox"/> Mature fruit <input type="checkbox"/> In bud <input type="checkbox"/> Seed dispersing <input type="checkbox"/> In flower <input type="checkbox"/> Senescent <input type="checkbox"/> Immature fruit <input type="checkbox"/> Dormant
---	---

Evidence of Disease, Predation, or Injury? Yes  No  Pollinators: \_\_\_\_\_  
 Comments on Disease, Predation, or Injury: \_\_\_\_\_  
 How would you characterize the vigor of this population?  Excellent  Good  Poor

Last Modified: 1/11/2017

RINHSD\_B\_PJordan\_112018.xlsx - Excel

File Home Insert Page Layout Formulas Data Review View Tell me what you want to do... Sign in Share

Clipboard Font Alignment Number Styles Cells Editing

Calibri 11 Wrap Text General

B I U Merge & Center \$ % +.0 .00 -0.0

Conditional Formatting Table Cell Styles Delete Sort & Find & Filter Select Editing

G2098 violacea

	B	C	D	E	F	G	H	I	J	K	L	M
1	RINHSED Code	ObsID	ObsDate	Family	Genus	Species	COMNAME	ITIS	NAT_STAT	RI_STAT	GCN/FC	LAT
2096	PDOXA010W0*001*RI	2051	05/17/1999	Oxalidaceae	Oxalis	violacea	Violet Wood-sorrel	29098	N5?	SE		41.510
2097	PDOXA010W0*001*RI	1787	05/15/2001	Oxalidaceae	Oxalis	violacea	Violet Wood-sorrel	29098	N5?	SE		41.510
2098	PDOXA010W0*001*RI	2970	5/6/2012	Oxalidaceae	Oxalis	violacea	Violet Wood-sorrel	29098	N5?	SE		41.510
2099	PDOXA010W0*001*RI	1786	00/00/1900	Oxalidaceae	Oxalis	violacea	Violet Wood-sorrel	29098	N5?	SE		41.510
2100	PDOXA010W0*004*RI	3880	5/28/2017	Oxalidaceae	Oxalis	violacea	Violet Wood-sorrel	29098	N5?	SE		41.394

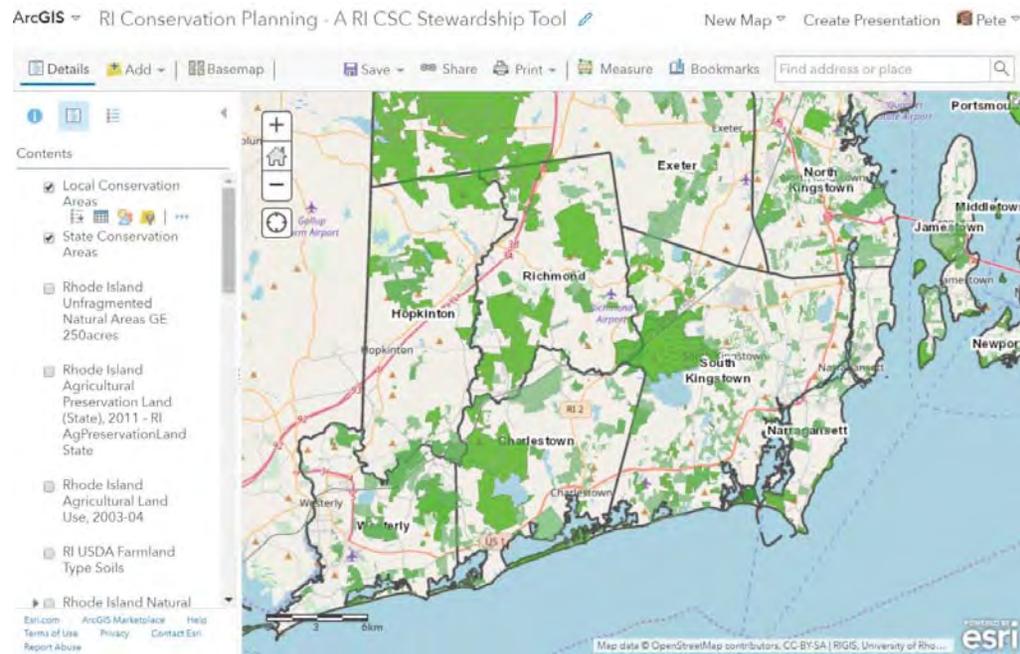
112018 DB Update

Ready 100%

*Desmodium sessilifolium*  
Herbarium specimen collected here  
in 1914, no more recent record



# CSC Conservation Stewardship Mapping Tool



<http://tinyurl.com/CSC-Cons-Mapper>

# Easement Monitoring Tools



*"That Property Line Should Be Near Here....."*

## Challenges

- Navigation to property boundary
- Consistent records
- Integrate photos
- Data sharing

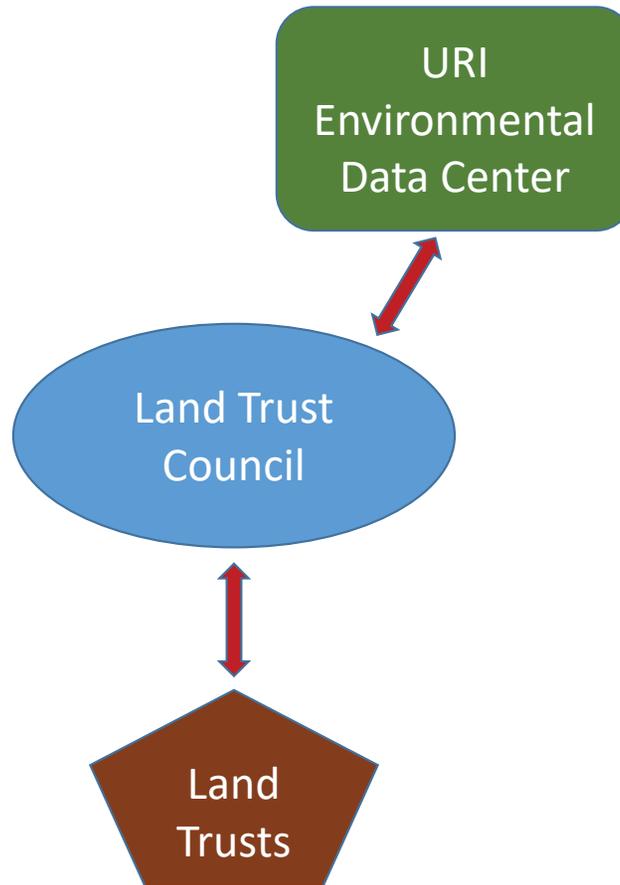
# Easement Monitoring Tools

## **Solution**

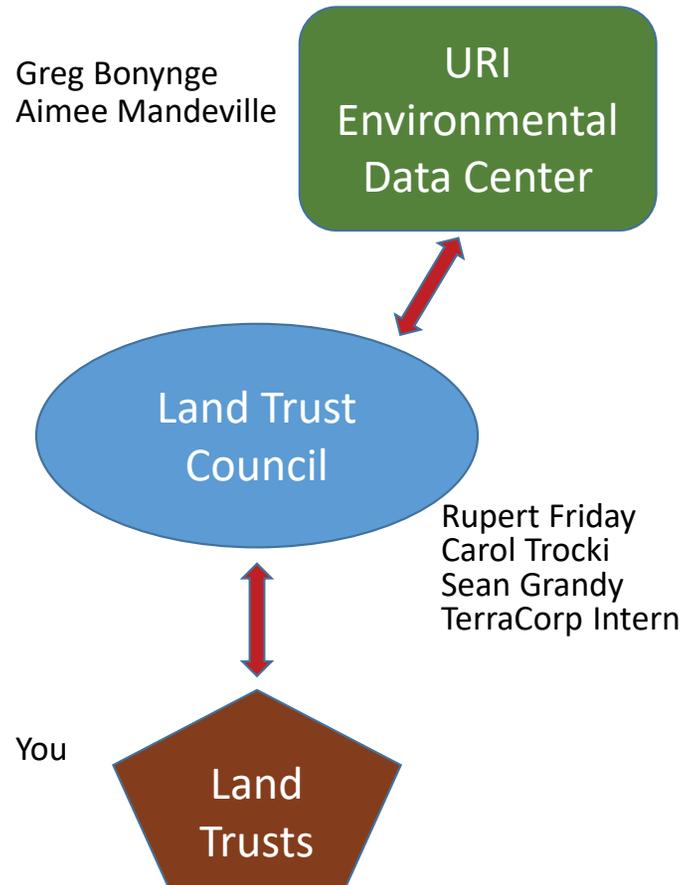
- iPad-based data collector
- Enhanced GPS accuracy
- Standardized input fields
- ArcGIS cloud storage



## The Pieces and Players



## The People



## How it Works



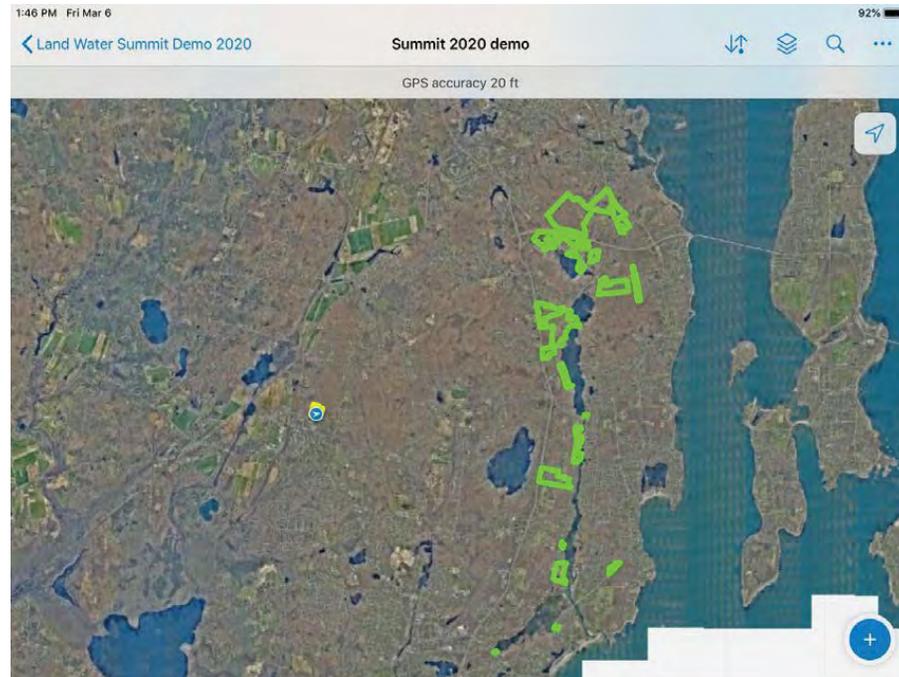
- Land Trust Requests Help from TerraCorp Tech
- Provides GIS digital parcel boundaries



- URI EDC creates user account for LT
- TerraCorp Tech creates iPad app that includes parcel boundaries
- TerraCorp Tech provides system instructions to LT staff
- LT uses iPad and GPS for easement monitoring
- Returns hardware to LT Council
- Review data and reports using an online mapping app

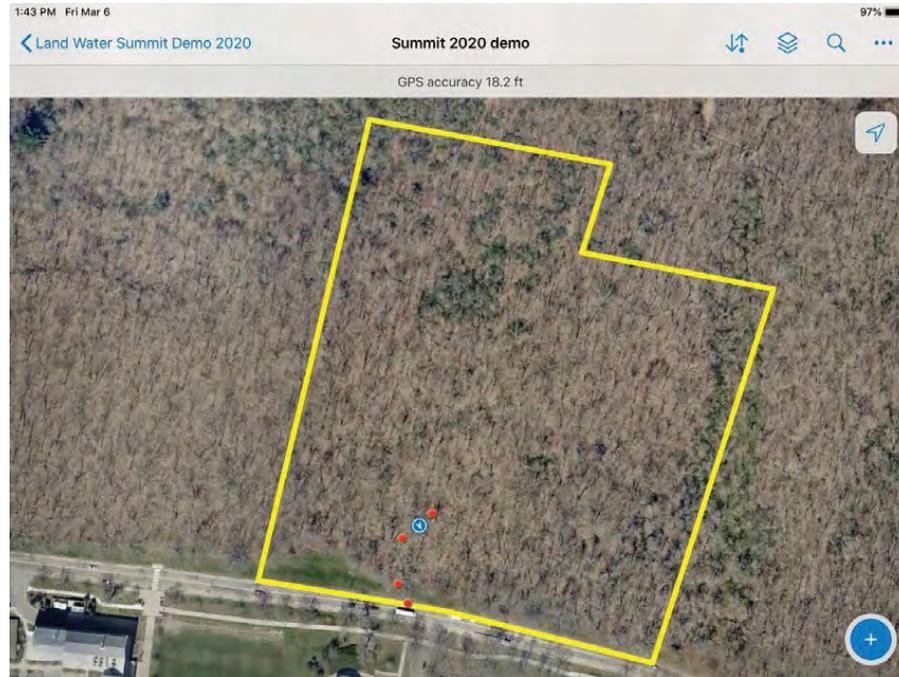
# How it Works

## Properties to Monitor

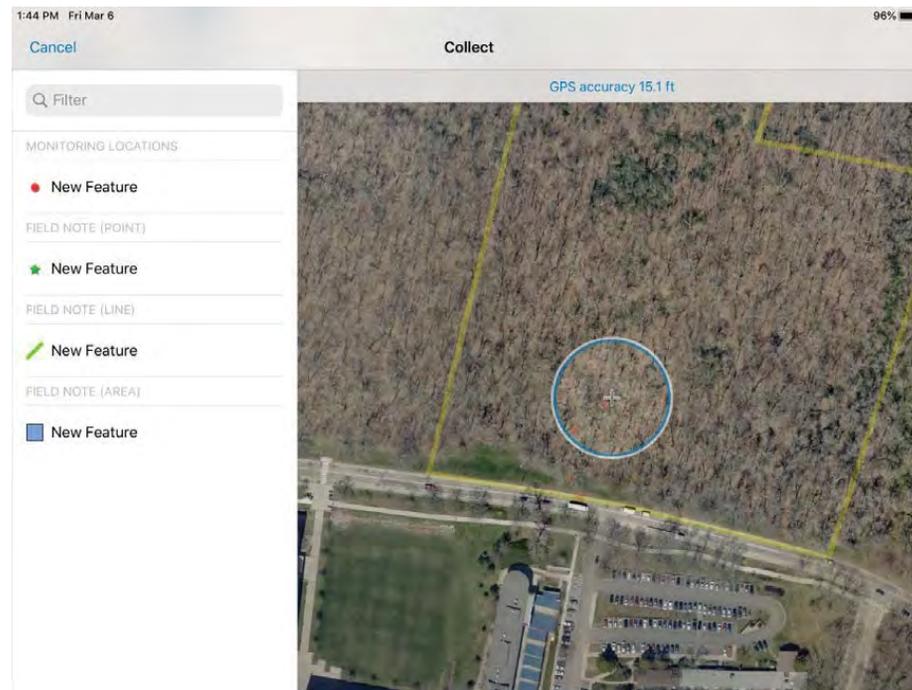


# How it Works

## Property Boundary

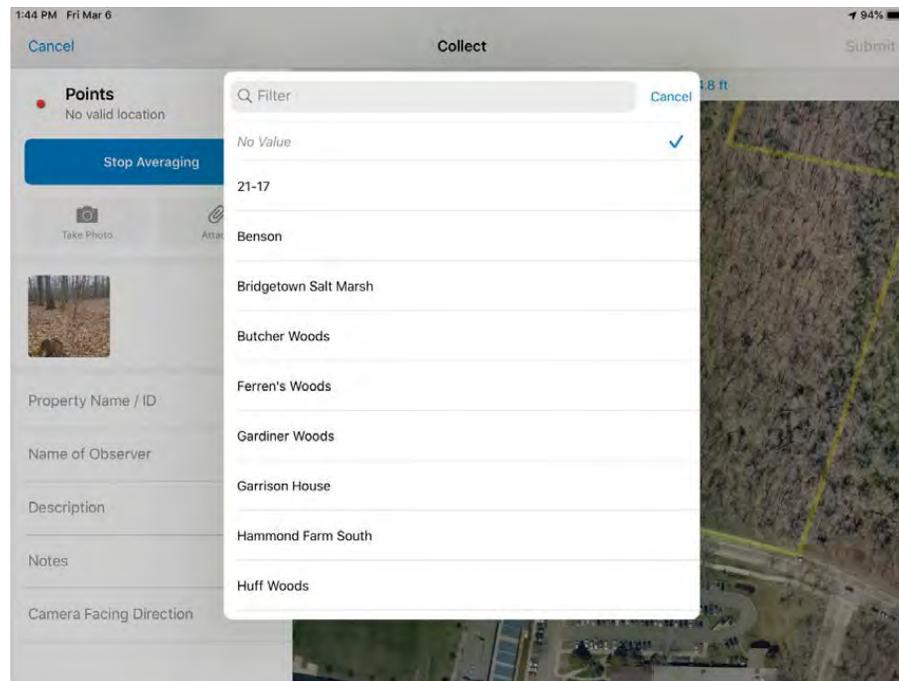


# Logging Data



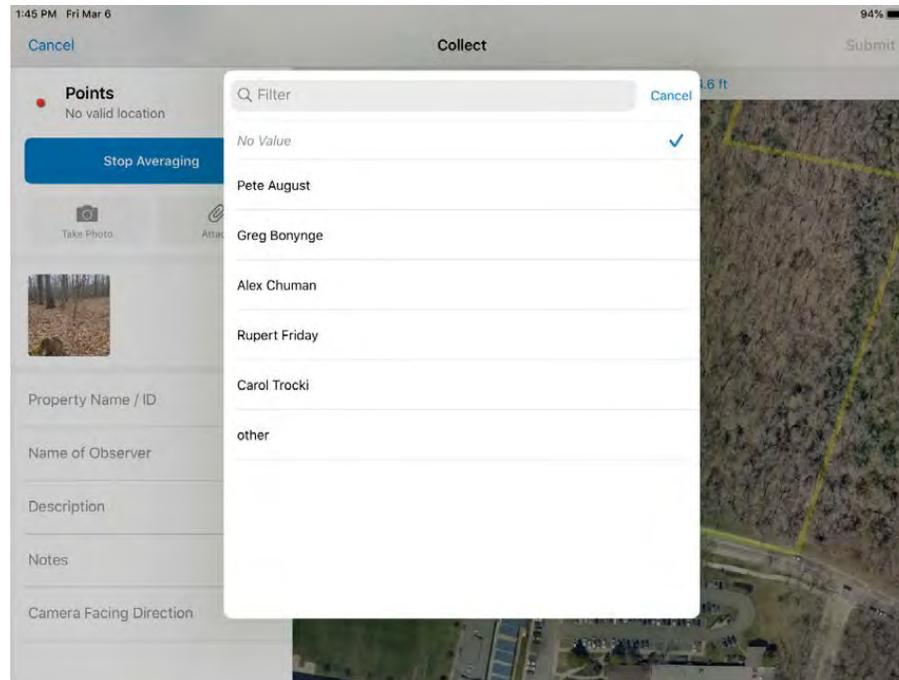
# Logging Data

## Identify Property



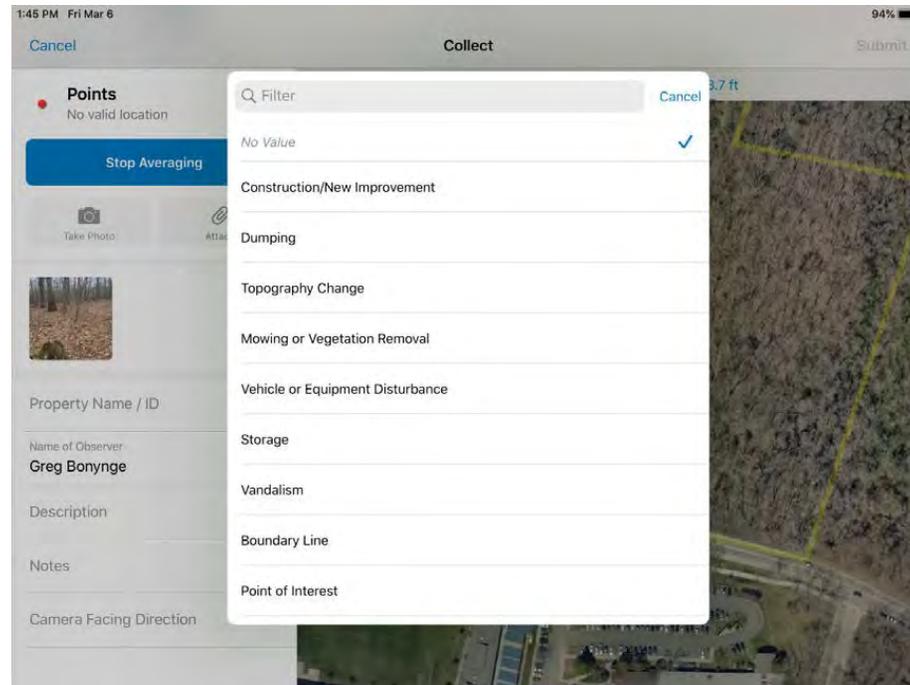
# Logging Data

## Identify Monitor



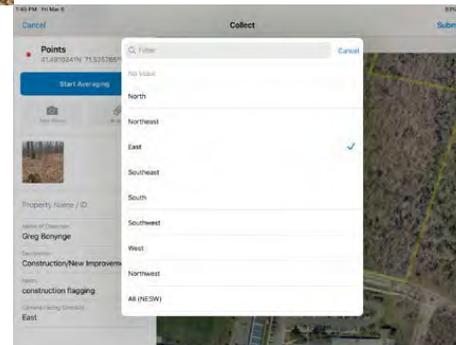
# Logging Data

## Identify Issue



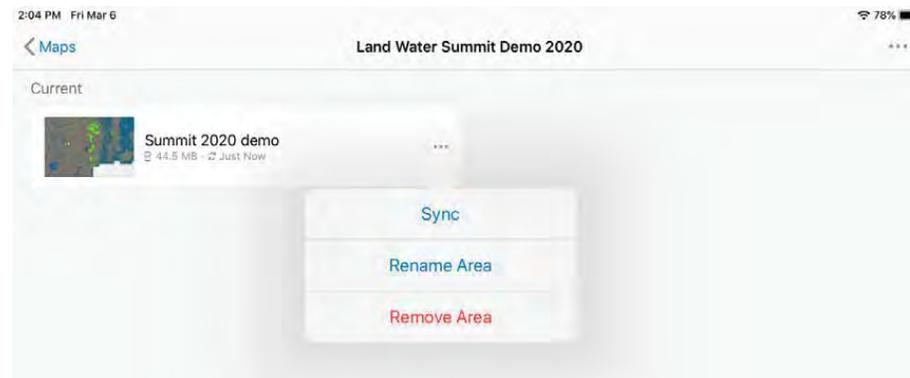
## Logging Data

## Add Photos and Metadata



## Logging Data

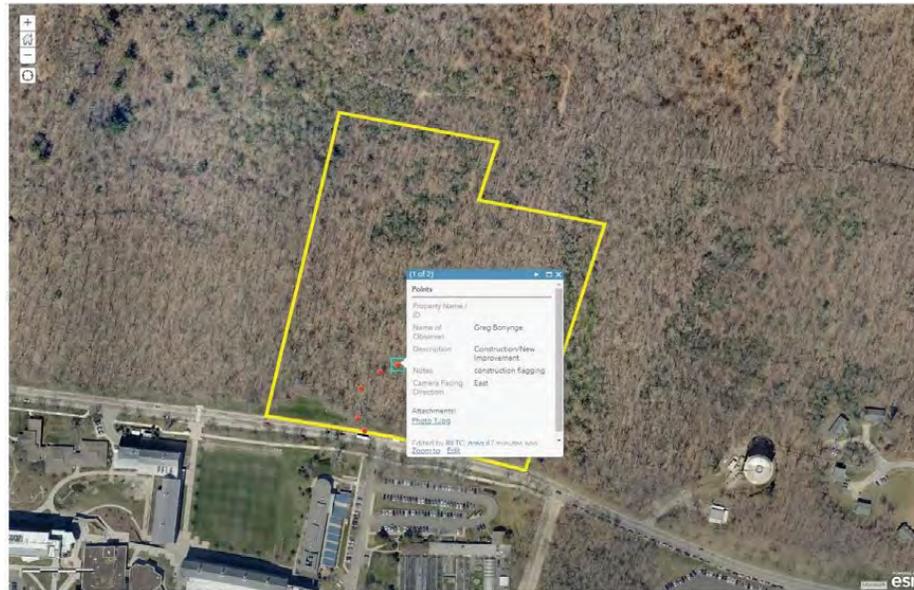
## Sending to the Cloud



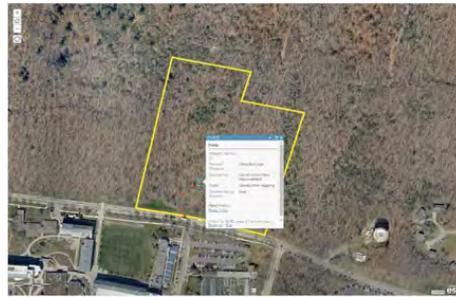
- ***All of your work is stored on the iPad until...***
  - the iPad is connected to a wifi network and,
  - the Land Trust re-opens Collector and deliberately syncs the iPad with ArcGIS Online.

# Viewing Data

## ArcGIS Online



## Viewing Data



## Attributes

## Images



# Reporting

## Description (Grouped Counts)

COUNT	Construction/New Improvement	Mowing or Vegetation Removal	Natural History Observation	Point of Interest
5	1	1	1	2

## Description

Property Name / ID	Name of Observer	Camera Facing Direction	Description	Notes
	Greg Bonyng	Northwest	Mowing or Vegetation Removal	downed tree
	Greg Bonyng	West	Natural History Observation	interesting rock
	Greg Bonyng	East	Construction/New Improvement	construction flagging
	Greg Bonyng	All (NESW)	Point of Interest	fire hydrant
	Greg Bonyng		Point of Interest	stone wall

# Easement Monitoring Tools

## **Conclusions**

- CSC investing in tools to assist conservation land management
- Need Land Trust participation and suggestions
- Solution is an evolution, not a 1-time fix

RICSC has you covered:

1. Pre-acquisition assessment
2. Baseline Documentation Report
3. Management Plan
4. Monitoring

[www.tinyurl.com/ricsctools](http://www.tinyurl.com/ricsctools)

<http://tinyurl.com/csc-cons-mapper> *(editor's pick!)*

The 2020 Land and Water Conservation Summit is presented by

RHODE ISLAND LAND TRUST COUNCIL

Audubon Society of Rhode Island

RHODE ISLAND RIEEA Environmental Education Association

# RHODE ISLAND LAND AND WATER PARTNER

- Home    Land & Water Conservation Summit    Resource Library
- Contact Us    Donor/Member Management
- Overview    **Materials from Past Summits**

## Land & Water Conservation Summit

The 17th annual Summit will be held on Saturday March 7, 2020 at the URI Memorial Union. You don't want to miss it!

Keynote address by Dr. Mamie Parker, former head of Fisheries and Northeast Director at the US Fish & Wildlife Service - *A Change in Climate - Preparing the Next Generation with Passion, Inspiration and Excellence*. Dr. Parker is widely known as a motivational and inspirational speaker. [Read more about Dr. Parker.](#)



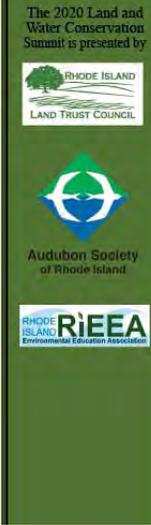
The Land and Water Conservation Summit is an annual day long conference held on a Saturday in March. Developed to meet the needs of land trusts, watershed organizations and municipal conservation commissions, the Summit offers dozens of hands-on workshops designed to enhance technical and organizational effectiveness. Workshops are taught by experts from throughout Rhode Island and cover topics essential for watershed management, land conservation, and organizational development.

Since it began in 2004, the Summit has annually attracted over 300 leaders from throughout Rhode Island for a day of learning and networking. Local conservation leaders come from all walks of life - banking, industry, academia - and are preeminent leaders from throughout the state. The Summit presents an unsurpassed opportunity to network with people who are both passionate about the state's natural resources and outstanding community and state leaders.

Click on the links below for workshop descriptions and registration.

- [Summit Workshops](#)
- [2020 Summit at a Glance](#) (pdf format)
- [2020 Full Program](#) (pdf format)
- **Online and mail-in registration is no longer available but walk-up registrations on the day of the summit are welcome.**





state outdoor recreation plan  
wetlands regs and land trust trails  
commercial solar siting  
green economy bond  
invasive plants  
land owner liability

# exploreRI.org— now reformatted for smart phones

State map showing:

- trailheads and trailhead parking
- boat ramps and put-ins
- accessibility
- dog/bike/horse/ski

Site maps

- links to outfitters
- links to organizations
- stories

Tie-ins

- environ. ed. programs
- pediatricians

The screenshot shows the website interface for Rhode Island Trail Finder. At the top, there is a navigation bar with links for Home, Go Paddling, Go Walking, Outfitters & Gear, About Us, Stories, Resources, and a Donate Now! button. Below the navigation is a large banner image of a forest with the text "Explore Rhode Island's Blueways and Greenways" and the Rhode Island Land Trust Council logo. The main heading is "Rhode Island Trail Finder: Go for a Walk!". Below this, there is a search section with a text input for "Street Address, Town Name or Zip Code", a "Go" button, and a "Find trails within 10 miles" filter with a "Reset" button. To the right, there are icons for accessibility (wheelchair, dog, bicycle, horse, stroller) and a "Sort List By: Town" dropdown menu. Below the search section, there is a table of trail listings with columns for Town, Trail Name, Miles of Trail, and Difficulty. The table lists several trails, including "Osamequin Nature Trails and Bird Sanctuary: 'First Bird' Trails" and "Mount Hope Farm".

Town	Trail Name	Miles of Trail	Difficulty	Accessibility Icons
Barrington, RI	<a href="#">Osamequin Nature Trails and Bird Sanctuary: 'First Bird' Trails</a>	1.5 miles	easy	🐕 🚶
Barrington, RI	<a href="#">Osamequin Nature Trails and Bird Sanctuary: 'Second Bird' Trails</a>	0.5 miles	easy	🐕 🚶
Barrington, RI	<a href="#">Veterans Memorial Park - Eastern Side</a>	2.5 miles	easy	🐕 🚲 🚶
Bristol, RI	<a href="#">Claire D. McIntosh Wildlife Refuge/Environmental Education Ctr.</a> 🚶	0.8 miles	very easy	🚶
Bristol, RI	<a href="#">Mount Hope Farm</a> 🚶	2.5 miles	easy - very easy	🐕 🚲
Bristol, RI	<a href="#">Perry Tavares Farm Conservation Land</a>	2 miles	moderate	🐕 🚲 🚶
Burrillville, RI	<a href="#">Burrillville Bike Path</a> 🚶	1.2 miles	very easy	🐕 🚲 🚶
Charlestown, RI	<a href="#">Ninioret National Wildlife Refuge</a> 🚶	6 miles	moderate - very easy	🐕 🚶

# exploreRI.org— now reformatted for smart phones

State map showing:

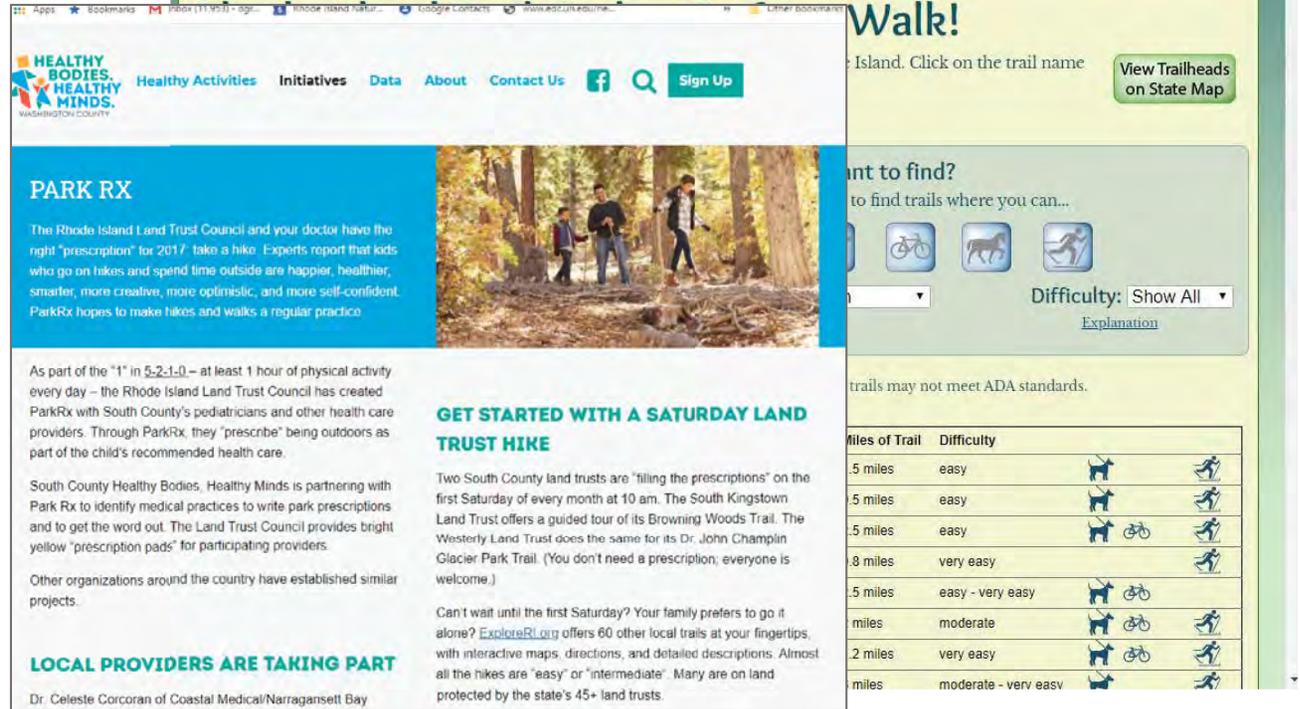
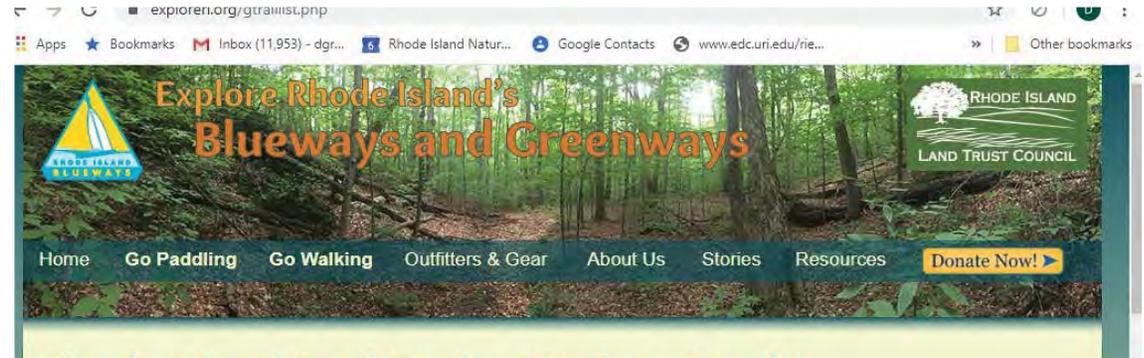
- trailheads and trailhead parking
- boat ramps and put-ins
- accessibility
- dog/bike/horse/ski

Site maps

- links to outfitters
- links to organizations
- stories

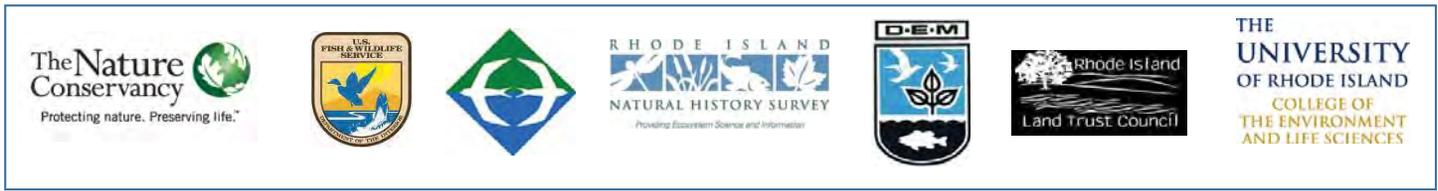
Tie-ins

- environ. ed. programs
- pediatricians



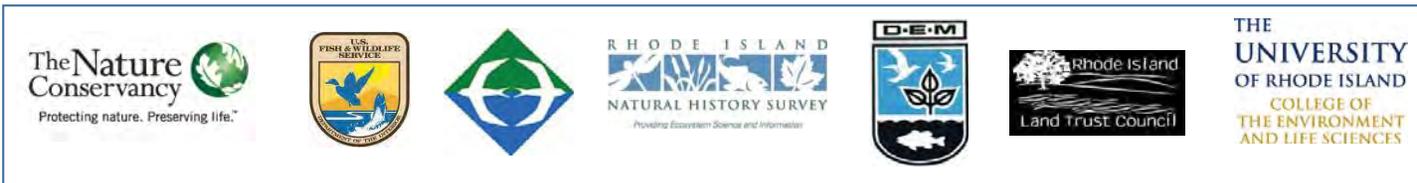
## CSC Projects 2019

CSC 2019 Project Proposals	2019 Distribution	Final - including repurposed funds
CSC Proposal 2019 Planning for Terra Corps - RILTC	\$2,340.00	\$2,340.00
CSC Proposal 2019 Land Water Summit-ASRI	\$2,500.00	\$2,500.00
CSC Proposal 2019 Pollinators- ASRI	\$7,784.00	\$7,784.00
CSC Proposal 2019 State Policy - RILTC	\$20,000.00	\$20,000.00
2019 URI Stewardship Interns - RINHS	\$9,056.00	\$16,070.00
Youth Conservation League 2019 - ASRI	\$22,000.00	\$22,000.00
CSC Proposal 2019 RINHS Capacity Building - RINHS	\$25,000.00	\$25,000.00
CSC Proposal Heritage Data 2019 - RINHS	\$9,900.00	\$12,400.00
<b>TOTAL for all proposed projects</b>	<b>\$98,580.00</b>	<b>\$108,094.00</b>



## CSC Projects 2020

CSC 2020 Project Proposals	2020 Distribution	Rollover of Unspent '19
CSC Proposal 2020 Terra Corps - RILTC	\$ 2,000	\$ 1,000
CSC Proposal 2020 Land Water Summit-ASRI	\$ 2,500	
CSC Proposal 2020 State Policy - RILTC	\$ 20,000	
2020 URI Seminar on BDRs - RILTC	\$ 8,400	
Youth Conservation League 2020 - ASRI	\$ 26,000	
CSC Proposal 2020 RINHS Capacity Building - RINHS	\$ 25,000	
CSC Proposal Heritage Data 2020 - RINHS	\$ 3,357	\$ 2,067
CSC Proposal Forest Stewardship Planning - RIDEM	\$ 12,000	
CSC Proposal 2018 Hab_Restoration_SpadefootToad - RINHS		\$ 3,386
CSC 2018 Marketing and Website Development - RINHS		\$ 1,796
TOTAL new funds for projects	\$99,257	\$8,249.00
TOTAL incl. Rollover	\$107,506	



## SUMMARY

- Look for RFPs for YCL
- Check out the Resource Library
  - at the Land & Water Partnership website
- Check out publications and invasive resources at the Natural History Survey's website
- Sign your land trust up to use ArcGIS online maps and the new field mapper equipment
- Overwhelmed? All the resources we discussed today and more are listed on the handout sheet

[www.tinyurl.com/ricsctools](http://www.tinyurl.com/ricsctools)



## How can you get involved in the CSC?

- Through member organizations (see below)
- Participate directly in funded projects
- Watch for RFPs for pilot projects
- Give to the RICSC endowment at the RI Foundation

## More discussion on RICSC?

