

# Biodiversity Assessments In Rhode Island: A Do-it-yourself Guide

with GIS advice by Pete August, URI Natural Resources Science  
and updates from the RI Conservation Stewardship Collaborative

**RICSC**

THE  
UNIVERSITY  
OF RHODE ISLAND  
DEPARTMENT OF  
NATURAL RESOURCES  
SCIENCE

R H O D E I S L A N D  
  
N A T U R A L H I S T O R Y S U R V E Y

1994 ~ 2019

YEARS  
**25**

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

## What's the Value to Land Conservation of having Biodiversity Information?

- Guide Acquisition
- Advocate for Funds
- Access to Funds
- Non-monetary support
- Guide Management
- Engage volunteers and visitors
- Connect with wider circle of stakeholders

## What is biodiversity?

species diversity

genetic diversity

ecosystem or community diversity

What is biodiversity?

**VIABILITY of SPECIES  
and NATURAL COMMUNITIES  
in SPACE and TIME**

*“There was a marbled salamander  
in my back yard on Thursday, it looked like it was doin’ fine!”*

## Biodiversity Information can be Gathered and Used in a Variety of Formats

- Map of the site
- Map showing the site in a larger setting
- Rare species sighting
- Species list
- Natural community/habitat list
- Notable feature/habitat

**Getting it on the map**





## RARE SPECIES in RHODE ISLAND



Where do they come from?

**Legislative Mandate**

Methodology

Data Collection

Interpretation based on biological criteria

### **RIGL § 20-37**

It is the policy of this state to contribute to the maintenance of a high-quality environment within the state and elsewhere for the benefit of the safety, health, and welfare of its citizens by forbidding the importation, sale, offering for sale, transportation, storage, traffic, ownership, or other possession or use of any dead or live animal or plant or any part of the skin, other tissues, or body, whether raw, manufactured, processed, or preserved, of any species of animal or plant considered by the United States Secretaries of the Interior or Commerce to be under the provisions of the federal Endangered Species Act of 1973, 16 U.S.C. § 1531 et seq.

"Endangered species" means any animal or plant so declared by the United States Secretaries of the Interior or Commerce under the provisions of the federal Endangered Species Act of 1973, 16 U.S.C. § 1531 et seq., or any animal or plant so declared by the director of the Rhode Island department of environmental management pursuant to chapter 34 [sic...prob. refers to chapter 35] of title 42:

No person shall buy, sell, offer for sale, store, transport, import, export, or otherwise traffic in any animal or plant, or any part of any animal or plant, whether living, dead, processed, manufactured, preserved, or raw if the animal or plant has been declared to be an endangered species by either the United States Secretaries of the Interior or Commerce or the director of the Rhode Island department of environmental management.





## RARE SPECIES in RHODE ISLAND



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## By What Methodology are Rare Species Managed in Rhode Island?

Natural Heritage Methodology comes from US Endangered Species Act (1973):

- species (or natural communities) in space and time
  - agreed taxonomy and nomenclature
  - objective standards for delineating spatial extent
- manage sites where species carryout essential life stages
  - understanding of biological/ecological conditions for continued viability
  - agreed time horizon
- prioritize using a system
  - status (governmental policy statement)
  - rank (quantitative assessment of risk)
  - various lists (IUCN, etc)



## RARE SPECIES in RHODE ISLAND



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# Data Collection

State Natural Heritage Programs  
and  
Natural Heritage Data Centers

NatureServe



RI NHP  
planning  
regulation  
established via government

RI NHS  
private non-profit  
non-regulatory  
non-advocacy



## RARE SPECIES in RHODE ISLAND



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## Tracking Species in Space and Time



Make a List of Species You Want to Track, called “Elements”



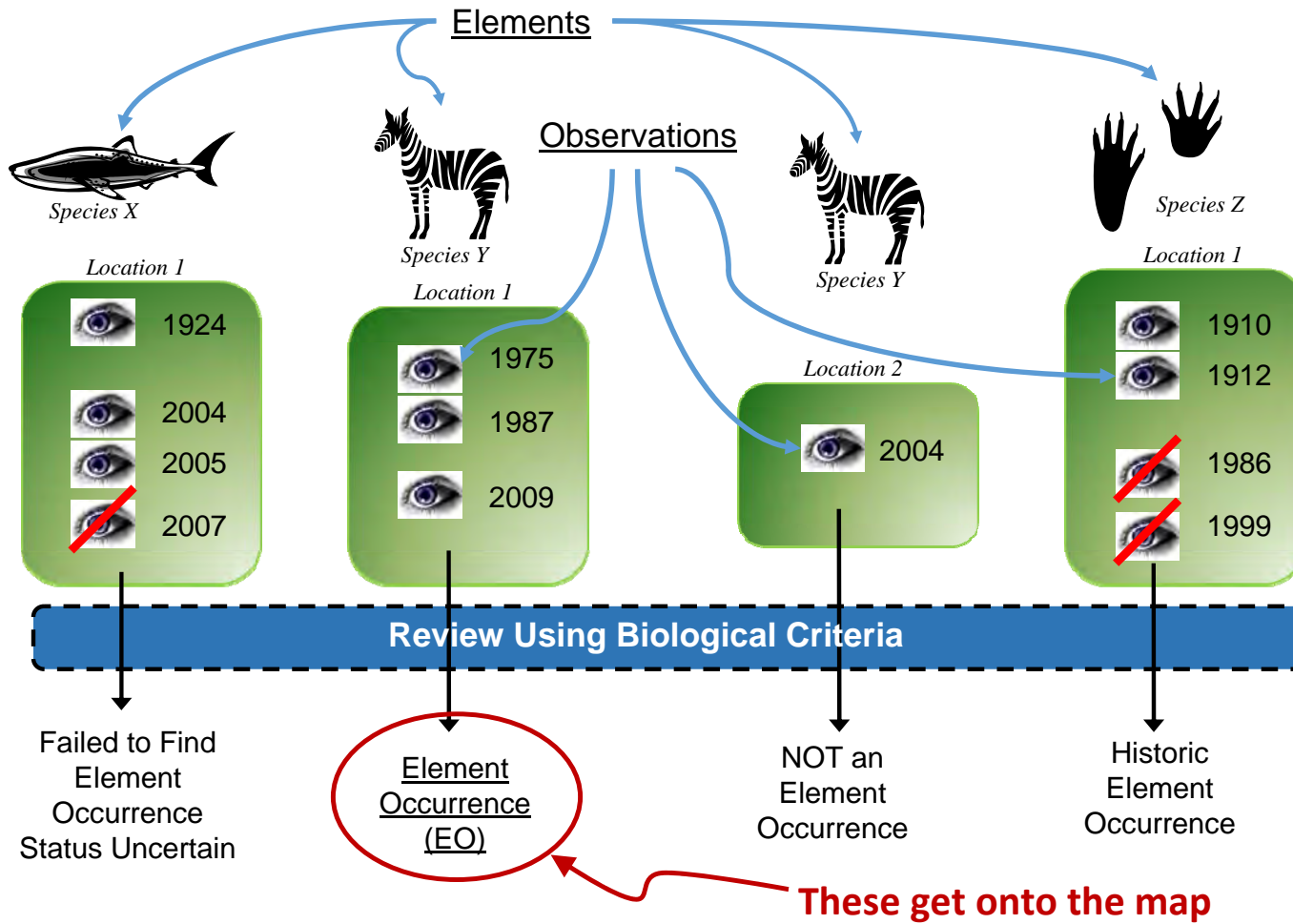
Record Observations of those Species at Particular Places and Times

**E.O.**

Using Biological Criteria Decide which of those Observed Places Qualify as “Element Occurrences” — Places with a Viable Population of a Species

Not Just Places where Species Presence is Incidental

# Tracking Species in Space and Time



## Element Occurrences are Mapped and Buffers (a.k.a. “the Blobs”) Are Drawn Around Them

- Beginning about 1990
- Delineated on Topo Maps by DEM Heritage Program
- Digitized by URI EDC





## Current Process

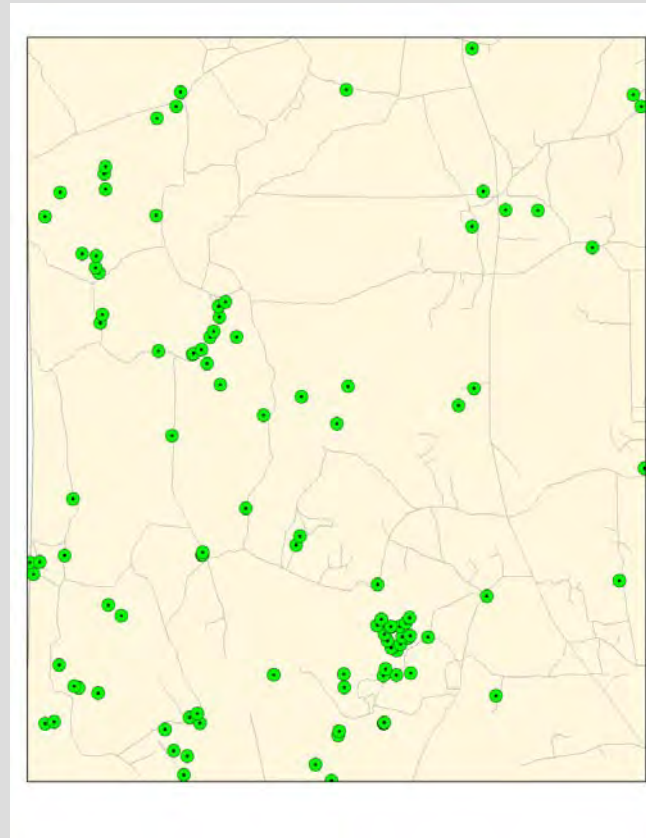
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- Decisions by: TNC, DEM, RINHS, URI
- Database Management: RINHS
- GIS Processing: DEM
- Data-driven, consensus based
- Objective, quantitative

# Steps

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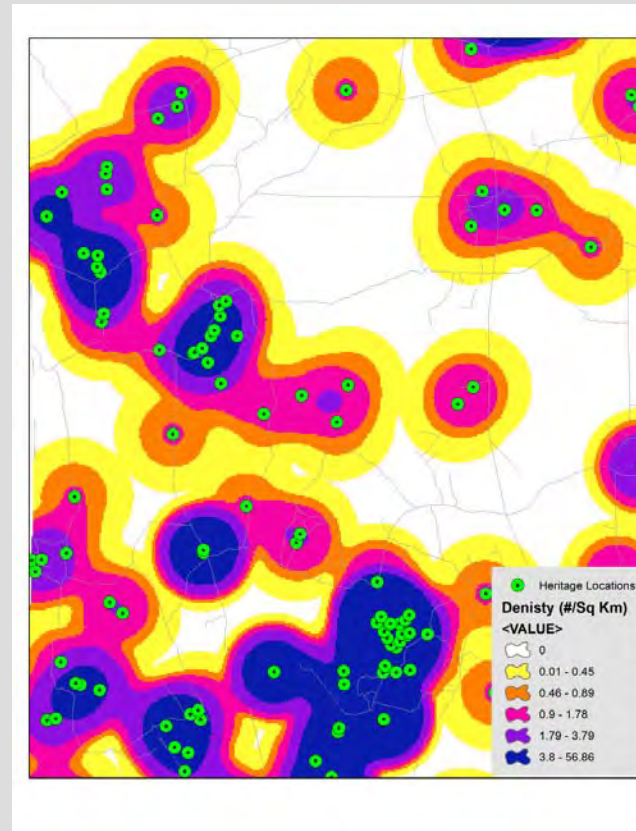
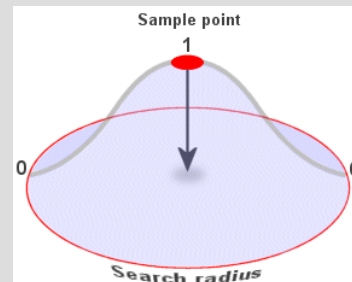
Start with the Point locations  
of Element Occurrences



*RI Conservation Stewardship Collaborative*

# Steps

Kernel density calculation  
Search radius 1 Km  
Density = EO's / Sq Km

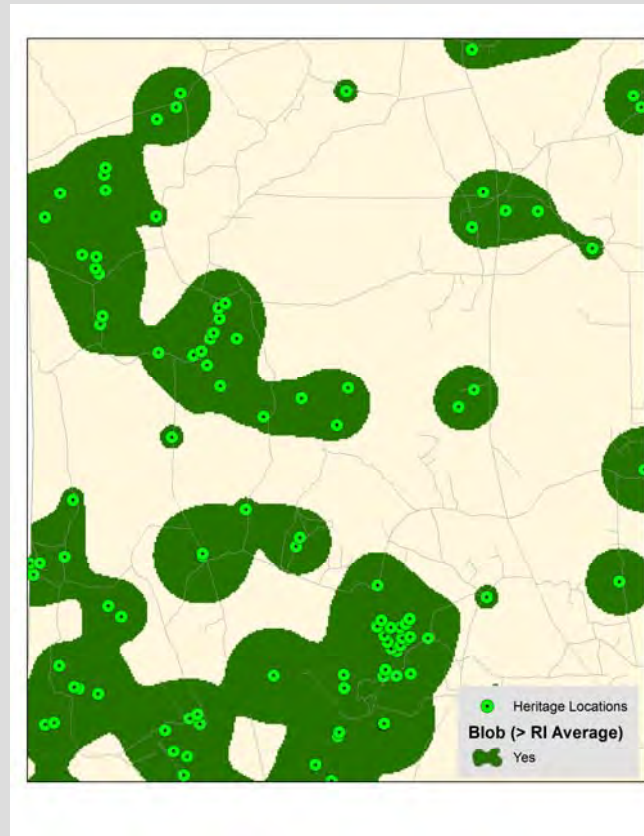


*RI Conservation Stewardship Collaborative*

# Steps

**Calculate RI-wide average density**

**Isolate areas > statewide average**



*RI Conservation Stewardship Collaborative*

# Accessing the Data

Google “RIGIS Natural Heritage”

Go to

About 4,950 results (0.37 seconds)

[Natural Heritage Areas | RIGIS](https://www.rigis.org/datasets/natural-heritage-areas)

[www.rigis.org/datasets/natural-heritage-areas](https://www.rigis.org/datasets/natural-heritage-areas)

Nov 26, 2018 - The **Natural Heritage** Areas were developed from a kernel density analysis of Heritage data element occurrences (EO). The calculation, based ...

Go to “Create Webmap”

Natural Heritage Areas

Custom License | 11/26/2018 | Spatial Dataset | 276 Rows

The Natural Heritage Areas were developed from a kernel density analysis of Heritage data element occurrences (EO). The calculation, based on a 30 meter pixel size, determines the mean number of EOs per square kilometer for each pixel. Non-statistically significant areas were eliminated and the remaining areas converted to a polygon dataset. Element Occurrences are discreet observations of a community or nesting site of State or Federally listed rare or...

Attributes

Chart

Download | API

About

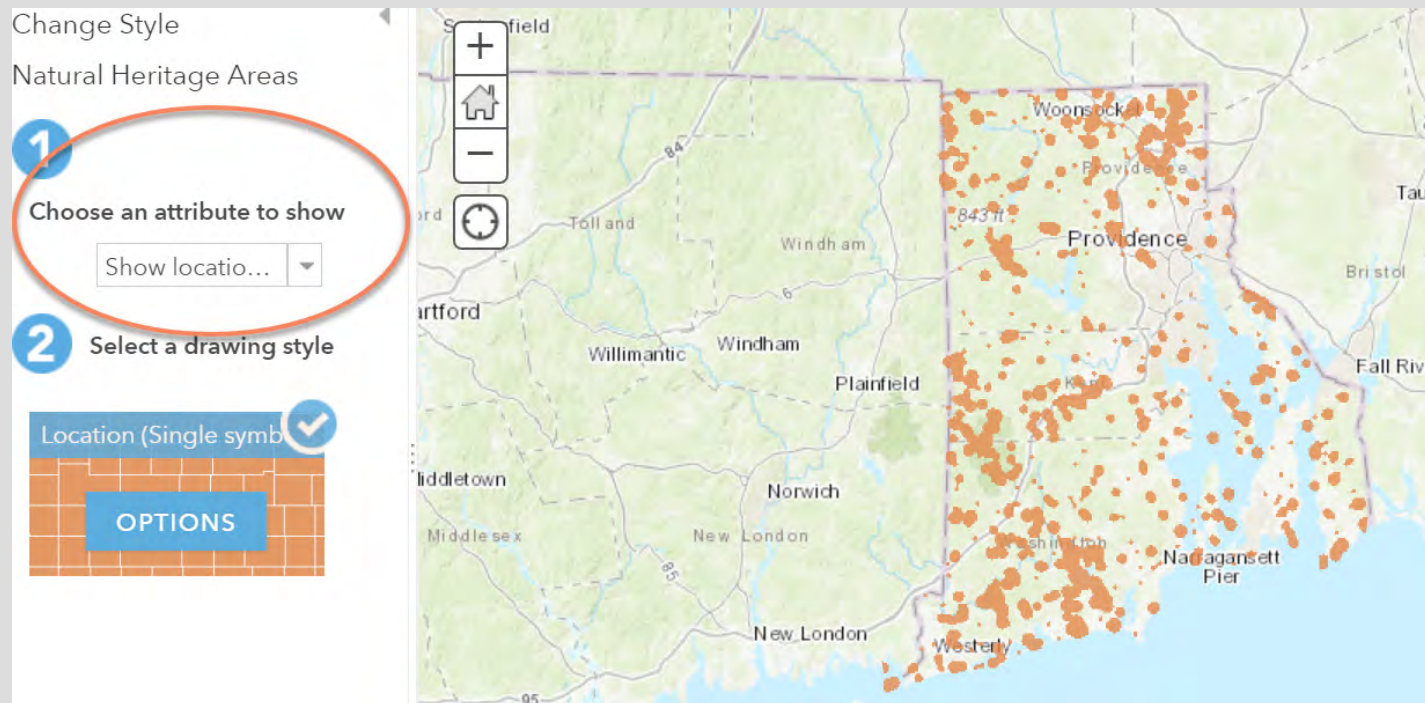
Biology and Ecology  
Shared By: UREDC\_RIGIS  
Data Source: <https://www.rigis.org/datasets/natural-heritage-areas>

View Metadata  
Create Webmap  
Share & Embed

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# Accessing the Data

Choose show location, then DONE



*RI Conservation Stewardship Collaborative*

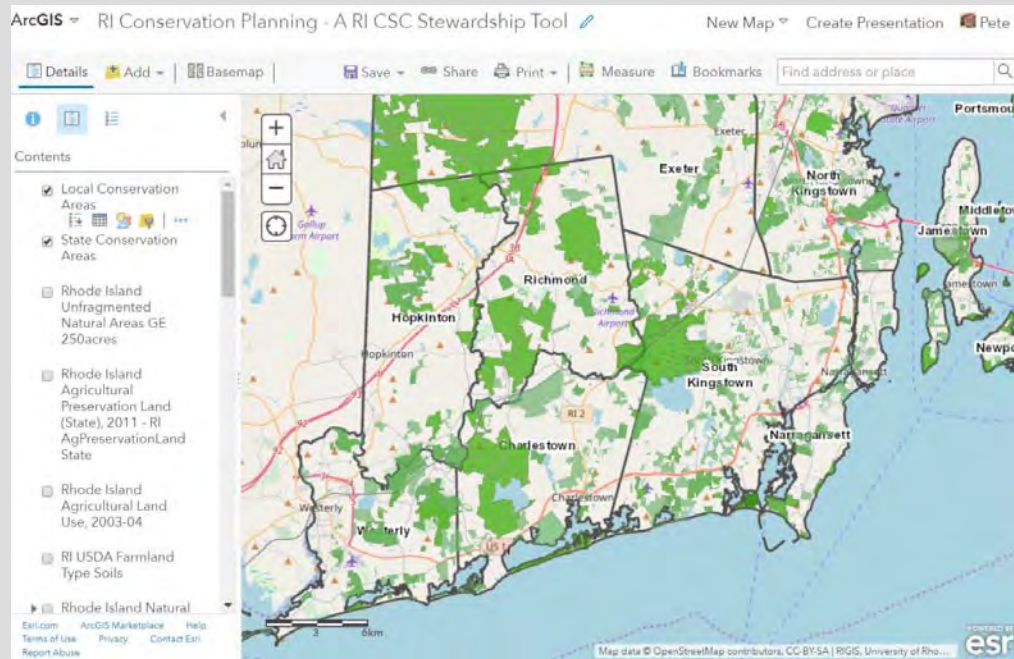


# Accessing the Data

The screenshot displays the ArcGIS Online interface. At the top, the text 'ArcGIS My Map' is visible. Below this, a toolbar contains icons for 'Details', 'Add', 'Basemap', 'Save', 'Print', 'Measure', and 'Bookmarks'. A search bar on the right is labeled 'Find address or place'. The main map area shows a geographic view of Rhode Island with numerous orange circular data points clustered in the eastern part of the state. A 'Contents' panel on the left shows 'Natural Heritage Areas' checked and 'Topographic' selected. A scale bar at the bottom indicates 0, 10, and 20 miles. Annotations with yellow boxes and arrows point to the zoom controls (labeled 'Zoom HINT: Hold Shift Key and Drag A Box'), the 'Basemap' button (labeled 'Change backdrop'), and the search bar (labeled 'Type an address').

**RI Conservation Stewardship Collaborative**

# CSC Conservation Stewardship Mapping Tool



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

*RI Conservation Stewardship Collaborative*



# rinhs.org/biodiversity-data/info-on-rare-species-in-ri

The screenshot shows the website for the Rhode Island Natural History Survey (RINHS). The header includes the RINHS logo, navigation links for Home, About Us Projects, Partners & Resources, Biodiversity Information, and Invasive Species Portal, along with social media links for RSS, Facebook, Blogs, and Contact Us, and a search bar.

The main content area is titled "Info on Rare Species in Rhode Island". It features a sidebar on the left with navigation options: Biodiversity Data, Biota of Rhode Island Checklists, Info on Rare Species in Rhode Island (highlighted), Report a Species / Submit Data, Request Data for Your Project, and Rhode Island Wildlife Action Plan. Below these are "Latest Blog Posts" including "Digital Herbarium is NOT an Oxymoron", "A Barnacle Stranding at Block Island", "Marine Mammals of Rhode Island, Part 10, Pilot Whale", "A Copperhead in Rhode Island?", and "Marine Mammals of Rhode Island, Part 9, Fin Whale".

The main text under the title "Info on Rare Species in Rhode Island" is titled "Rare and Endangered ('natural heritage') Species". It explains that per RIGL 20-37-2, the Rhode Island Department of Environmental Management is responsible for approving lists of plant and animal species of conservation interest. A four-party collaboration (RIDEM, University of Rhode Island, The Nature Conservancy, and RINHS) assists RIDEM by gathering and reviewing data on species occurrences. It lists current lists:

- Rhode Island Rare Plants 2016*. This list appeared in the Rhode Island Wildlife Action Plan 2015 as Appendix 1d. For convenience, spreadsheet and stand-alone PDF versions are provided here. As a further convenience the lists posted here add reference numbers, correct some typos, clarify some taxonomic points, and include the 2007 status for comparison.  
RI Rare Plants 2016 simple list(.xlsx, 42K)  
RI Rare Plants 2016 simple list(PDF, 479K)
- Rare Native Animals of Rhode Island*. Enser, R.W. 2006. Rhode Island Natural Heritage Program. Rhode Island Department of Environmental Management. Providence, RI. DOWNLOAD (PDF, 53K)

There is a photograph of a purple flower, identified as *Platanthera psycodes* (lesser purple fringed bog-orchid) State Concern.

Below this, it lists "SUPERCEDED LISTS":

- Rare Native Plants of Rhode Island*. Enser, R.W. 2007. Rhode Island Natural Heritage Program. Rhode Island Department of Environmental Management. Providence, RI. DOWNLOAD (PDF, 600K)

The section concludes with "Data on Rare and Endangered Species (a.k.a. Natural Heritage Data)", stating that as of December 2013, RINHS is part of a four-member consortium managing data on natural heritage (rare and endangered) species and natural communities in Rhode Island. Other partners are Rhode Island Department of Environmental Management (RIDEM), the Rhode Island chapter of The Nature Conservancy (TNC), and the University of Rhode Island Environmental Data Center (URI-EDC).

## [rinhs.org/biodiversity-data/info-on-rare-species-in-ri](http://rinhs.org/biodiversity-data/info-on-rare-species-in-ri)

The screenshot shows the website for the Rhode Island Natural History Survey. The header includes the organization's name and logo, along with navigation links for Home, About Us Projects, Partners & Resources, Biodiversity Information, and Invasive Species Portal. A search bar is also present. The main content area is titled 'Info on Rare Species in Rhode Island' and contains text about rare and endangered species, a list of links for reports and data, and a section for 'SUPERCEDED LISTS'. A photograph of a purple orchid is featured on the right side of the page.

**Rhode Island Natural History Survey**  
Providing Ecological Science and Information

Home About Us Projects Partners & Resources **Biodiversity Information** Invasive Species Portal

Biodiversity Data

### Info on Rare Species in Rhode Island

Rare and Endangered ("natural heritage") Species

Rare and Endangered ("natural heritage") species are those species that are of conservation interest in Rhode Island. Various state and federal regulations key off of those lists. A four-party collaboration consisting of RIDEM, University of Rhode Island, The Nature Conservancy, and the Rhode Island Natural History Survey assist RIDEM by gathering and reviewing data on species occurrences in the state and region and listing species of likely conservation interest in Rhode Island. The current lists:

*Rhode Island Rare Plants 2016*. This list appeared in the Rhode Island Wildlife Action Plan (RIWAP) and the Rhode Island Natural Heritage Program (RI-NHP). PDF versions are provided here. As a further convenience the lists posted here include reference numbers, correct some typos, clarify some taxonomic points, and include the 2007 status for comparison.

RI Rare Plants 2016 simple list(.xlsx, 42K)  
RI Rare Plants 2016 simple list(PDF, 479K)

*Platanthera psycodes* (lesser purple fringed bog-orchid) State Concern

*Rare Native Animals of Rhode Island*. Enser, R.W. 2006. Rhode Island Natural Heritage Program. Rhode Island Department of Environmental Management. Providence, RI. DOWNLOAD (PDF, 53K)

**SUPERCEDED LISTS:**

*Rare Native Plants of Rhode Island*. Enser, R.W. 2007. Rhode Island Natural Heritage Program. Rhode Island Department of Environmental Management. Providence, RI. DOWNLOAD (PDF, 600K)

**Data on Rare and Endangered Species (a.k.a. Natural Heritage Data)**

As of December 2013, RINHS is part of the four-member consortium that manages data on natural heritage (rare and endangered) species and natural communities in Rhode Island. Other partners are Rhode Island Department of Environmental Management (RIDEM) the Rhode Island chapter of The Nature Conservancy (TNC), and the University of Rhode Island Environmental Data Center (URI-EDC).

Latest Blog Posts

Digital Herbarium is NOT an Oxymoron

A Barnacle Stranding at Block Island

Marine Mammals of Rhode Island, Part 10, Pilot Whale

A Copperhead in Rhode Island?

Marine Mammals of Rhode Island, Part 9, Blue Whale

RI Rare Plants (2016)

<http://rinhs.org/wp-content/uploads/2011/07/RI-Rare-Plants-2016-simple-list.pdf>

RI Rare Animals (2006)

[http://rinhs.org/wp-content/uploads/2012/05/ri\\_rare\\_animals\\_2006.pdf](http://rinhs.org/wp-content/uploads/2012/05/ri_rare_animals_2006.pdf)



RINHS DB\_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 General

Wrap Text

Conditional Formatting Table Styles

Insert Delete Sort & Find & Filter Select

G2098 violacea

	B	C	D	E	F	G	H	I	J	K	L	M
1	RINHSE 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%


# How to report rare species on your properties so they get included on future maps?

Get Observation Forms at  
<http://rinhs.org/biodiversity-data/report-a-species-submit-data/>

Submit them to RINHS via email or snail mail



**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 20-4; 20-37, inter alia) and operated under an agreement among RI Natural History Survey, URI-EDC, The Nature Conservancy, and RIDEM.

OFFICE USE ONLY: Date Received: \_\_\_/\_\_\_/\_\_\_  
 New: \_\_\_ Updated: \_\_\_ 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 1555, Kingston, RI 02851, or by email to rinhs@rinhs.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 photo to form or email (rinhp\_photos@rinhs.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 off of single organism): \_\_\_\_\_  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

**Resources for learning more about particular rare species  
or  
identifying species on your properties**

# <https://www.mass.gov/orgs/masswildlifes-natural-heritage-endangered-species-program>

I want to... ▾ About ▾ Contact us ▾ News

Search this organization

agencies.

You can help! [Support endangered species conservation.](#)

## What would you like to do?

### Top actions & services

<a href="#">List of Endangered, Threatened, and Special Concern species →</a>	<a href="#">Report rare species &amp; vernal pool observations →</a>	<a href="#">MassWildlife Publications →</a>
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### More actions & services

<a href="#">MA Endangered Species Act (MESA) Regulatory Review →</a>	<a href="#">Species Information and Conservation →</a>	<a href="#">Vernal Pools →</a>
<a href="#">Land Protection →</a>	<a href="#">Natural Communities →</a>	<a href="#">Natural Heritage &amp; Endangered Species Advisory Committee →</a>

<https://www.mass.gov/orgs/masswildlifes-natural-heritage-endangered-species-program>

I want to... ▾ About ▾ Contact us ▾ News

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You can help! [Support endangered species conservation.](#)

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Top actions & services

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More actions & services

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- [Vernal Pools →](#)
- [Land Protection →](#)
- [Natural Communities →](#)
- [Natural Heritage & Endangered Species Advisory Committee →](#)



stable populations here, and some are relatively common. Other species are unique to Massachusetts and occur naturally in the state. There are 169 species of animals and 258 species of plants that are protected under the Massachusetts Endangered Species Act. These 427 native species are listed as Endangered, Threatened, or of Special Concern and are tracked in our database. These species are either at risk, or may become at risk, of extinction. Rarity in the state, population trend, and overall threat are the main criteria used to determine extinction risk.

## MESA List

The official list of Endangered, Threatened, and Special Concern species as defined in Section 10.60 of Chapter 321 of the Code of Massachusetts Regulations. The MESA List is prepared under the authority of the Massachusetts Endangered Species Act (MESA). Under this act (MGL c. 131A and its implementing regulations (321 CMR 10.00)), MESA-listed species are protected from "take".

[List of Vertebrates](#)

[List of Invertebrates](#)

[List of Plants](#)

## Summary of the MESA list

As listed in 321 CMR 10.90, March 10, 2017

Taxonomic Group	Endangered	Threatened	Special Concern	Totals
-----------------	------------	------------	-----------------	--------

### Natural Heritage & Endangered Species Program

#### Address

MassWildlife Field Headquarters  
1 Rabbit Hill Road, Westborough, MA  
01581

[directions](#) →

#### Phone

Main (508) 389-6360

Open M-F, 8am-4:30pm

#### Regulatory Review Inquiries

(508) 389-6357

North/Central/Western Massachusetts

(508) 389-6385

Southeastern Massachusetts/Cape & Islands

[more contact info](#) >

#### RELATED

[321 CMR 10.00: Massachusetts Endangered Species Act](#) →

[Town Species Viewer](#) →



# List of Vertebrates

List of Endangered, Threatened, and Special Concern vertebrate species in Massachusetts.

Click on the common name for a fact sheet outlining the description, habitat, threats, life history, etc. for that species.

## Fish

Common Name	Scientific Name	MA Status	Fed Status	Notes
<a href="#">American Brook Lamprey</a>	<i>Lampetra appendix</i>	T		
<a href="#">Shortnose Sturgeon</a>	<i>Acipenser brevirostrum</i>	E	E	
<a href="#">Atlantic Sturgeon</a>	<i>Acipenser oxyrinchus</i>	E	E (CT River), T (Merrimack River)	

## CONTACT

### Natural Heritage & Endangered Species Program

#### Address

MassWildlife Field Headquarters  
1 Rabbit Hill Road, Westborough, MA 01581

[directions](#) →

#### Phone

**Main** (508) 389-6360  
Open M-F, 8am-4:30pm

#### Regulatory Review Inquiries

(508) 389-6357

North/Central/Western Massachusetts

(508) 389-6385



**Natural Heritage  
& Endangered Species  
Program**

[www.mass.gov/nhesp](http://www.mass.gov/nhesp)

Massachusetts Division of Fisheries & Wildlife

**Lake Chub  
*Couesius plumbeus***

State Status: **Endangered**  
Federal Status: **None**

**GENERAL DESCRIPTION:** The Lake Chub is an elongate, round-bodied minnow with a small but well-developed thread-like barbel at the posterior end of the upper jaw. They are generally 100 mm but can reach up to 150 mm in length. The Lake Chub has a large eye and a bluntly rounded snout which slightly overhangs the mouth and is completely separated from the upper lip by a continuous deep groove. The Lake Chub is colored dark, greenish-gray or dark brown on the back, becoming silvery-gray on the sides and whitish on the belly. A midlateral stripe is most prominent in juveniles. The scales are small and are usually crowded anteriorly. Their dorsal fin has 8 rays and the anal fin has 7 or 8 rays. During breeding season males develop patches of red around the mouth and at the bases of the pectoral and pelvic fins. Both sexes can develop tubercles (small, pimple-like bumps) around head, breast, and pectoral and pelvic fins.

**SIMILAR SPECIES:** The Blacknose Dace (*Rhinichthys atratulus*) and Creek Chub (*Semotilus atromaculatus*) both have similar body shapes and barbels on the mouth. In the Blacknose Dace the upper

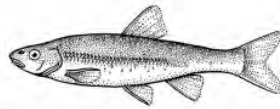
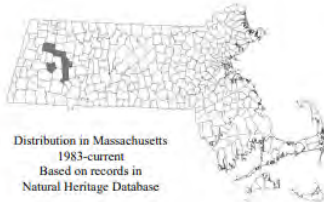


Illustration by Laszlo Meszoly, from Hareid et al. 2002. *Inland Fishes of Massachusetts*.

lip is joined to the tip of the snout by a bridge of tissue, whereas the Lake Chub has a continuous deep groove around the lip. The barbel on the Creek Chub is located in the groove above the lip and is often hard to see. They also have a dark spot at the base of their dorsal fin, which Lake Chubs do not.

**HABITAT:** The Lake Chub is restricted to clear, cold lakes and clear, cold, fast-flowing rivers. They have only been found in rivers in Massachusetts. They seem to prefer areas with gravel or cobble substrates and little or no vegetation.

**LIFE HISTORY:** Few studies have investigated the life history of Lake Chubs, and those available generally pertain to lake populations. Lake Chubs spawn in early spring, and lake populations often move into streams and may migrate large distances. River populations may also move large distances during the spawning season, possibly up to 10 km. This species does not build a nest but deposits sinking eggs on gravel or sand substrates. Lake Chubs mature in their third or fourth year and seldom live beyond five years. They feed on zooplankton, aquatic insects, algae, and small fishes.



**A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan**  
**Massachusetts Division of Fisheries & Wildlife**  
1 Rabbit Hill Rd., Westborough, MA; tel: 508-389-6300; fax: 508-389-7590; [www.mass.gov/dfw](http://www.mass.gov/dfw)

Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for 'endangered wildlife conservation' on your state income tax form, as these donations comprise a significant portion of our operating budget.  
[www.mass.gov/nhesp](http://www.mass.gov/nhesp)

**LAR SPECIES:** Purple Milkweed can be confused with Tall Milkweed (*Asclepias exaltata*), Non Milkweed (*Asclepias syriaca*), and Swamp Milkweed (*Asclepias incarnata*). Tall Milkweed, as its name suggests, is often taller, up to 2m (~6ft), and has pink to greenish flowers. Swamp Milkweed has flowers arranged in a flat cluster, and often has pubescent upper leaf surfaces. Common Milkweed's flowers are lighter purple and its leaves are rounded with a distinct separate point, while Purple Milkweed leaves simply taper to a narrow tip. In fruit, Purple Milkweed and Common milkweeds have reflexed peduncles (fruiting stalks), while in Swamp and Tall milkweeds the peduncles are erect. The smooth fruit of Purple Milkweed can be used to distinguish it from the warty fruit of Common Milkweed. An additional character for Purple Milkweed is that the leaves of the Purple Milkweed are not as prominently pinnate-veined as those of Common milkweed. Tall and Purple milkweeds are very difficult to distinguish from vegetative plants, but generally Tall Milkweed has longer leaves; Purple Milkweed's fruit may be necessary for conclusive identification.

**LOWERING TIME IN MASSACHUSETTS:**

Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

**FRUITING TIME IN MASSACHUSETTS:**

Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

**THREATS:** This is an early to mid-successional species; tree growth and the resulting reduction in light contribute to mortality. One population in Massachusetts has been critically endangered by development. Some populations may be threatened by mowing. As the existing populations are small, the loss of sexual reproduction due to self-incompatibility and inbreeding depression may also contribute to population decline.

**POPULATION STATUS IN MASSACHUSETTS:** Purple Milkweed is listed as Endangered under the Massachusetts Endangered Species Act. All listed species are protected from killing, collecting, possessing, or sale and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors. Historically, Purple Milkweed was found in all but Bristol and Plymouth counties. Current populations are only known from Barnstable and Hampshire counties.

**MANAGEMENT RECOMMENDATIONS:** Documented populations need to be protected from the effects of development, succession, erosion and recreation. Lack of other individuals for cross pollination is an issue at one location; supplemental pollen may be needed for sexual reproduction. There should be quantitative monitoring undertaken at all known sites. All active management of rare plant populations (including invasive species removal) is subject to review under the Massachusetts Endangered Species Act, and should be planned in close consultation with the Massachusetts Natural Heritage & Endangered Species Program.

**REFERENCES:**

Choberka, E.G., M.R. Penskar, and P.J. Higman. 2000. Special plant abstract for *Asclepias purpurascens* (purple milkweed). Michigan Natural Features Inventory, Lansing, MI. 2 pp. Available from: [http://web4.msu.edu/mnfi/abstracts/botany/asclepias\\_purpurascens.pdf](http://web4.msu.edu/mnfi/abstracts/botany/asclepias_purpurascens.pdf)  
Farnsworth, E.J., and M.J. DiGregorio. 2002. *Asclepias purpurascens* L. (Purple Milkweed) Conservation and Research Plan. New England Plant Conservation Program, Framingham, Massachusetts, USA. Available from: <http://www.newfs.org/docs/pdf/Asclepiaspurpurascens.pdf>

**A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan**

Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for 'endangered wildlife conservation' on your state income tax form, as these donations comprise a significant portion of our operating budget.  
[www.mass.gov/nhesp](http://www.mass.gov/nhesp)

# Checklists

The screenshot shows the website for the Rhode Island Natural History Survey (RINHS). The header includes navigation links for RSS, Facebook, Blogs, and Contact Us, along with a search bar. The main navigation menu features Home, About Us Projects, Partners & Resources, Biodiversity Information, and Invasive Species Portal. The page title is 'Biota of Rhode Island Checklists'. The left sidebar contains links for Biodiversity Data, Biota of Rhode Island Checklists (highlighted), Info on Rare Species in Rhode Island, Report a Species / Submit Data, Request Data for Your Project, and Rhode Island Wildlife Action Plan. The main content area includes a description of the checklists, a photo of a plant, and links to a large Excel workbook and a PDF of native vascular plants.

RSS Facebook Blogs Contact Us Search

RHODE ISLAND  
NATURAL HISTORY SURVEY  
Providing Ecosystem Science and Information

Home About Us Projects Partners & Resources Biodiversity Information Invasive Species Portal

## Biodiversity Data

- Biota of Rhode Island Checklists**
- Info on Rare Species in Rhode Island
- Report a Species / Submit Data
- Request Data for Your Project
- Rhode Island Wildlife Action Plan

## Latest Blog Posts

Where Rhode Island Excels: the

## Biota of Rhode Island Checklists


This page offers checklists for Rhode Island taxa. RINHS develops checklists for a variety of purposes: to encourage naturalists to get involved and submit observations, to use in our events such as bioblitz, and as ways to direct people to larger works such as the the Vascular Flora of RI.

These Rhode Island biodiversity checklists were developed over a period of time and may or may not represent the current state of knowledge. Consider them a starting point for each taxon. If you find species not on the checklists, please submit your observation to RINHS so we can improve the lists. Naturalists who demonstrate particular prowess at finding great things may be recognized by our Golden Eye Award.

The vascular flora checklist we use is based on Lisa L. Gould, Richard W. Enser, Richard E. Champlin, and Irene H. Stuckey, 1998, *Vascular Flora of Rhode Island: A List of Native and Naturalized Plants*, Rhode Island Natural History Survey. It is available from RINHS, \$10.00 + tax and S&H.

A species list for vascular plants is available as a rather large excel workbook with species sorted different ways.  
Rhode Island vascular plant species list only .xls:3.1MB

You might also be interested in this simpler PDF which lists just the **native** vascular plants of Rhode Island by Latin genus and includes their English common names and state and federal conservation statuses but nothing else.  
PDF:1.0MB.



<http://rinhs.org/biodiversity-data/biota-of-rhode-island-checklists/>



# Checklists

vascular plants  
butterflies  
mammals  
fish  
reptiles & amphibians  
birds

The screenshot shows the website for the Rhode Island Natural History Survey. At the top, there is a navigation bar with links for RSS, Facebook, Blogs, and Contact Us, along with a search box. Below this is a header with the organization's logo and a menu with links for Home, About Us Projects, Partners & Resources, Biodiversity Information, and Invasive Species Portal. The main content area features a sidebar on the left with links for Biodiversity Data, Biota of Rhode Island Checklists (highlighted), Info on Rare Species in Rhode Island, Report a Species / Submit Data, Request Data for Your Project, and Rhode Island Wildlife Action Plan. The main content area is titled 'Biota of Rhode Island Checklists' and contains several paragraphs of text. A photograph of a white flower is visible on the right side of the page.

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Biodiversity Data

**Biota of Rhode Island Checklists**

Info on Rare Species in Rhode Island

Report a Species / Submit Data

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Rhode Island Wildlife Action Plan

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<http://rinhs.org/biodiversity-data/biota-of-rhode-island-checklists/>

# "RIECC"

**Rhode Island Ecological Community Classification**

By  
**Richard W. Enser**



*Coastal Plain Wetland, Graminoid Fen, Great Swamp Management Area*

**Project Collaborators:**  
RI Natural History Survey  
David Gregg  
RI Department of Environmental Management  
Janet Cot, Cathy Sparks, Chris Rathel, Brian Telft, Paul Jordan, Bruce Payton, Charles B.  
University of Rhode Island  
Peter August, Charles LaBash  
The Nature Conservancy  
Scott Comings, Kevin Ruddock

**Supported by:**  
Rhode Island Conservation Stewardship Collaborative

Citation Format: Enser, R., D. Gregg, C. Sparks, P. August, P. Jordan, J. Colt, C. Rathel, B. Telft, B. Payton, C. Brown, C. LaBash, S. Comings, and K. Ruddock. 2011. Rhode Island Ecological Community Classification. Technical Report. Rhode Island Natural History Survey, Kingston, RI. (available at: www.rinhs.org)

4 October 2011

## Rhode Island Ecological Communities Classification – Outline Version

### *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.: = "SUB-TYPE"

### 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

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

## D. Mixed Deciduous/Coniferous Forests.

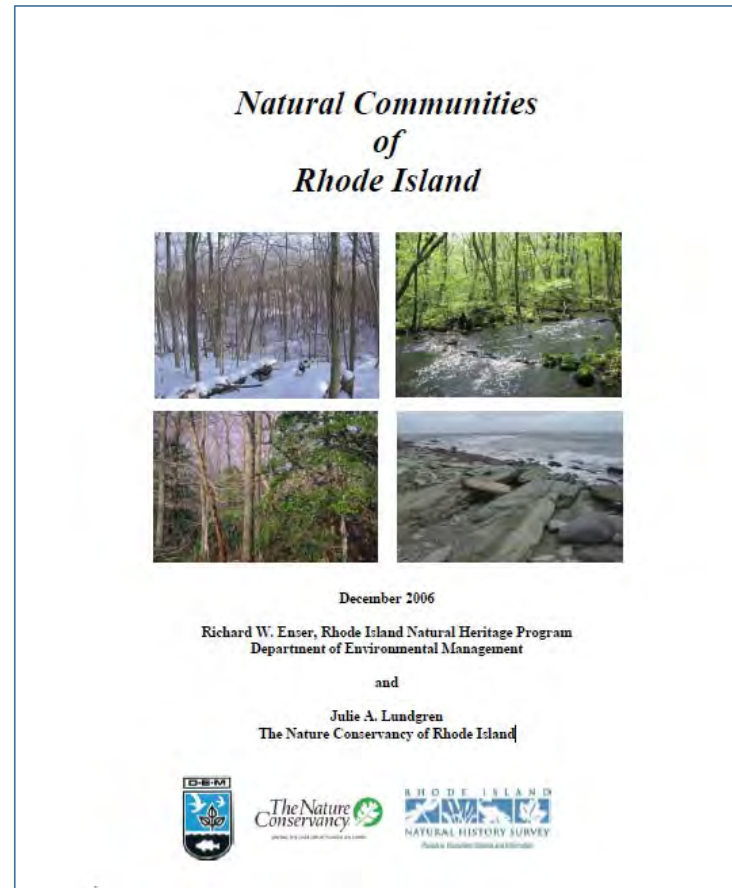
1. **Mixed Oak/Pitch Pine Forest.** Forest community on well-drained sandy soils of glacial outwash plains and moraines, and also on thin rocky soils of ridgetops. Dominant trees are pitch pine (*Pinus*) at >25% cover mixed with one or more oaks (*Quercus*), primarily white, black and scarlet. A well-developed 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*).

2. **Ruderal Forest.** Undifferentiated upland forests, typically even-aged

# “Enser & Lundgren”



[http://rinhs.org/wp-content/uploads/2012/05/ri\\_nat\\_comms\\_2006.pdf](http://rinhs.org/wp-content/uploads/2012/05/ri_nat_comms_2006.pdf)



## Natural Communities of Rhode Island



December 2006

Richard W. Enser, Rhode Island Natural Heritage Program  
Department of Environmental Management

and

Julie A. Lundgren  
The Nature Conservancy of Rhode Island



integrating and difficult to distinguish. More inventory of this type is needed. Both communities provide an abundance of fruit that is a critical food source for coastal resident and migratory songbirds.

Dist: Block Island and bordering Long Island Sound and lower Narragansett Bay.

Examples: Trustom Pond NWR, Charlestown, Rodmans Hollow, Block Island.

Note: Young examples of this type may be dominated more by early successional species such as sassafras and red cedar and overall composition may be dramatically skewed by past land use. For example, a Beech - Black Gum Forest variant occurs locally, but is an artifact of past clear-cutting and subsequent elimination of typical overstory species such as oak and hickory.

**2. Pitch Pine / Scrub Oak Barrens.** Woodland community typically found on well-drained sandy soils of outwash plains. Pitch pine (*Pinus rigida*) is the dominant tree varying from 25 to 60% cover, and the shrub layer is dominated by scrub oaks (*Quercus ilicifolia* and *Q. prinoides*), often forming dense thickets. The low shrub canopy typically includes sweetfern (*Comptonia peregrina*), late lowbush blueberry (*Vaccinium angustifolium*), and black huckleberry (*Gaylussacia baccata*). Sandy openings within the woodland may be sparsely vegetated with lichens and mosses, and may also include patches of bearberry (*Arctostaphylos uva-ursi*), heather (*Hudsonia ericoides* and *H. tomentosa*), and wild indigo (*Baptisia tinctoria*). Early sedge (*Carex pensylvanica*) is typically found in the understory, and other herbs present may include goat's-rue (*Tephrosia virginiana*), sickle-leaved golden aster (*Pityopsis falcata*), and wild lupine (*Pityopsis falcata*). Fauna of this community includes Alleghany mound ant (*Formica exsectoides*) and lepidoptera (moths and butterflies) such as buck moth (*Hemileuca maia*), frosted elfin (*Incisalia irus*), and hoary elfin (*Incisalia polios*) that are dependent on specific food plants that occur in this habitat (e.g., scrub oak, wild lupine, wild indigo). This community is typically maintained by periodic wildfire which reduces competing woody species and stimulates (but is not required for) reproduction of pitch pine.

Dist: Washington and Kent Counties.

Examples: Nicholas Farm, Coventry; Arcadia Management Area, Exeter.

**3. Red Cedar Rocky Summit.** A community on warm, dry, rocky ridges and summits where vegetation may be patchy within areas of exposed bedrock. Eastern red cedar (*Juniperus virginiana*) is the characteristic tree, with understory vegetation dependent on site conditions.

“Enser & Lundgren”



# Rhode Island Wildlife Action Plan: Companion

Includes sections on:

- 7 Steps For Effective Conservation Planning In Your Community
- Appendix: Wildlife Habitat Protection Checklist

## Community Wildlife Conservation Guide: Implementing Rhode Island's Wildlife Action Plan in Your Community



*A Guide for Rhode Island Communities, Conservation Groups, and Citizens  
Working to Protect Wildlife for the Health of Our Communities and Future Generations*

*"Nature is not a place to visit. It is home."  
~ Gary Snyder*



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markpagliarini added 5 observations Feb 26

<i>Hyla cinerea</i> RG 2	<i>Gopherus polyphemus</i> RG 3	<i>Nephila clavipes</i> RG 2	<i>Araucaria heterophylla</i> RG 1
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*Spodoptera dolichos* Sweet Potato Armyworm Moth

markpagliarini February 20, 2019 1 Research Grade

6500 Sand Lake Rd, Orlando, FL 32819, USA (Google, OSM)

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 <p><i>Spodoptera dolichos</i> Sweet Potato Armyworm Moth markpagliarini   February 20, 2019   1 Research Grade 6500 Sand Lake Rd, Orlando, FL 32819, USA (Google, OSM)</p> <a href="#">View Observation</a>
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# Identify



Species

Rhode Island, US

Go

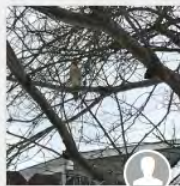
Filters

Reviewed



*Sciurus carolinensis*  
Eastern Gray Squirrel

Agree



Genus *Accipiter*  
Accipiters

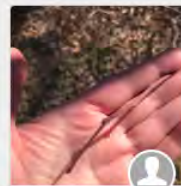


*Accipiter cooperii*  
Cooper's Hawk

Agree

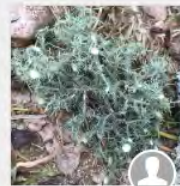


Genus *Ilex*  
Hollies



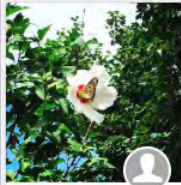
*Vaccinium corymbosu*  
Northern Highbush Bluelet

Agree



*Usnea strigosa*  
Bushy Beard Lichen

Agree

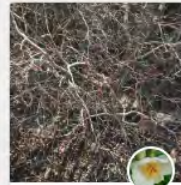


*Danaus plexippus*  
Monarch

Agree



Genus *Malus*  
Apples



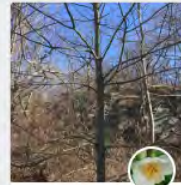
*Vaccinium corymbosu*  
Northern Highbush Bluelet

Agree



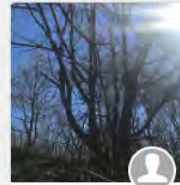
*Populus grandidentata*  
Bigtooth Aspen

Agree



*Acer rubrum*  
Red Maple

Agree



*Quercus robur*  
English Oak

Agree




3 observations reviewed

0

## Top Identifiers

RANK

- 1 tsn
- 2 apgarm
- 3 drshawntd
- 4 jlayman
- 5 fernbee
- 6 maractwin
- 7 greglasley
- 8 nlblock
- 9 maxallen


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Rhode Island

12,630 OBSERVATIONS

2,556 SPECIES

1,381 IDENTIFIERS

1,329 OBSERVERS

Map Grid List Places of Interest Redo search in map

Map Legend

Map data ©2019 Google


**Ardea herodias**  
(Great Blue Heron)  
Moonstone Beach Rd... • Dec 1, 2018  
Research Grade 1 1d

**Procyon lotor**  
(Common Raccoon)  
170 Nashua St, Pro... • Mar 7, 2019  
Research Grade 1 1d

**Sialia sialis**  
(Eastern Bluebird)  
39 Berrie Ln, Rock... • Mar 7, 2019  
Research Grade 1 1d

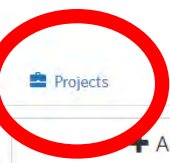
**Sciurus carolinensis**  
(Eastern Gray Squirrel)  
40 Clinton Ave, Sc... • Jan 22, 2019  
2d

**Passerculus sandwichensis**

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Feb 26



*Hyla cinerea*

RG 2



*Gopherus polyphemus*

RG 3



*Nephila clavipes*

RG 2



*Araucaria heterophylla*

RG 1

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Rhode Island BioBlitz 2018

JUN 7, 2018 - JUN 11, 2018

About

Members 6

19th Annual Rhode Island BioBlitz, Camp Fuller/Pt. Judith Pond, South Kingstown, June 8-9, 2018, 3 p.m. to 3 p.m. Organized by Rhode Island Natural History Survey. Over 200 volunteer scientists working in taxonomic teams will document as many species of life as possible at this site in just 24 hours. This approximately 100

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Overview

642 OBSERVATIONS

428 SPECIES


99 IDENTIFIERS

41 OBSERVERS

Stats

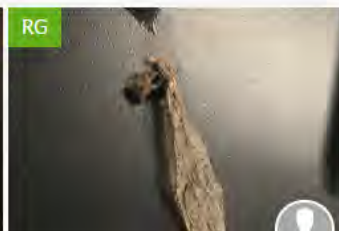
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*Chauliodes rastricornis*  
Spring Fishfly

2 9 months ago



*Chauliodes rastricornis*  
Spring Fishfly

1 9 months ago



*Cicindela sexguttata*  
Six-spotted Tiger Beetle

1 9 months ago



*Podabrus tricostatus*

1 9 months ago



# Stats

**Totals**

0 Observations »

0 Species »

0 People »

**Most Observations**

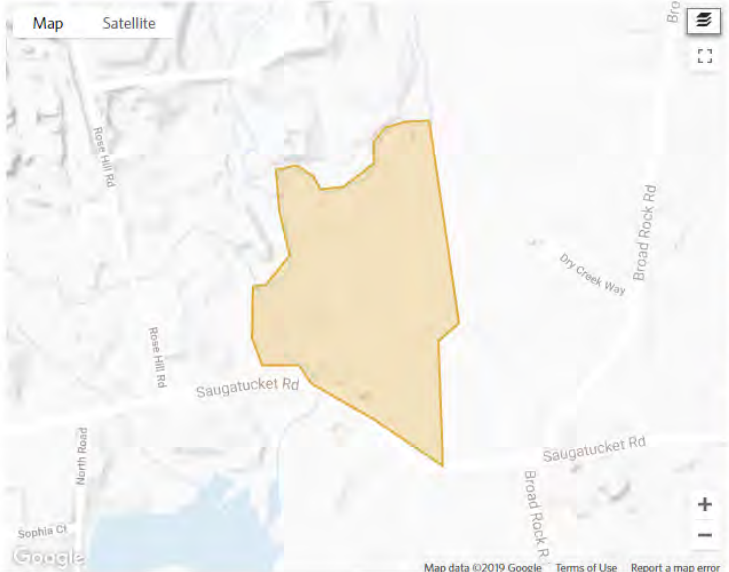
Unknown

**Most Species**

Unknown

**Most Observed Species**

Unknown



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## Welcome to BugGuide.Net!



Photo © Joyce Gross

### All Abuzz About Bugs!

We are an online community of naturalists who enjoy learning about and sharing our observations of insects, spiders, and other related creatures.

We enjoy the opportunity to instill in others the fascination and appreciation that we share for the intricate lives of these oft-maligned creatures.

### Our Mission

Using the best resources we have access to, we are creating a knowledgebase to help each other and the online community.

### Our Method

We collect photographs of bugs from the United States and Canada for identification and research.

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More than just a clearinghouse for information, this site helps expand on the natural histories of our subjects. By capturing the place and time



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▶ [Basswood Leaf Miner \(Baliosus nervosus\)](#)



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### Order Hemiptera - True Bugs, Cicadas, Hoppers, Aphids and Allies

[Classification](#) · [Synonyms and other taxonomic changes](#) · [Explanation of Names](#) · [Numbers](#) · [Size](#) · [Identification](#) · [Range](#) · [Habitat](#) · [Food](#) · [Life Cycle](#) · [See Also](#) · [Internet References](#) · [Works Cited](#)



#### Classification

Kingdom *Animalia* (Animals)  
Phylum *Arthropoda* (Arthropods)  
Subphylum *Hexapoda* (Hexapods)  
Class *Insecta* (Insects)  
Order *Hemiptera* (True Bugs, Cicadas, Hoppers, Aphids and Allies)

#### Synonyms and other taxonomic changes

Includes [Heteroptera](#) (True Bugs, formerly classified as a separate order Hemiptera), [Auchenorrhyncha](#) and [Sternorrhyncha](#) (the latter two formerly classified together in the order Homoptera)

#### Explanation of Names

HEMIPTERA: *hemi* 'half' + *pteron* 'wing'; refers mainly to True Bugs, whose forewings have a leathery basal part and membranous apical portion

#### Numbers

~10,200 spp. in almost 1600 genera in our area (~4,000 spp. in Canada); a third of the species are heteropteran<sup>[1]</sup><sup>[2]</sup>; worldwide, ~82,000 described spp. (estimated almost 200,000 total)<sup>[2]</sup>

#### Size

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## Order Hemiptera - True Bugs, Cicadas, Hoppers, Aphids and Allies

[Free-living Hemipterans](#) · [True Bugs](#) · [Plant-parasitic Hemipterans](#)

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### Suborder Heteroptera - True Bugs

⏪ ⏩ 1 2

[Cimicomorpha](#) · [Pentatomomorpha](#) · [Unidentified Heteroptera nymphs and eggs](#)

#### Infraorder Cimicomorpha



#### Infraorder Pentatomomorpha



#### Unidentified Heteroptera nymphs and eggs



⏪ ⏩ 1 2



[Flat Bugs](#) · [Lygaeoidea](#) · [Leatherbugs](#) · [Pentatomoidea](#) · [Pyrrhocoroidea](#)

**Family Aradidae - Flat Bugs**



**Superfamily Lygaeoidea**



**Superfamily Coreoidea - Leatherbugs**



**Superfamily Pentatomoidea**



**Superfamily Pyrrhocoroidea**



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Photos of insects and people from the [2014 gathering in Virginia](#), June 4-7.

Photos of insects and people from the [2013 gathering in Arizona](#), July 25-28

Photos of insects and



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Photo#143229



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### **Western Conifer Seed Bug - *Leptoglossus occidentalis***

Puyallup, Pierce County, Washington, USA  
August 18, 2007



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**Species *Leptoglossus occidentalis* - Western Conifer Seed Bug**

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**Classification**

- Kingdom Animalia (Animals)
  - Phylum Arthropoda (Arthropods)
    - Subphylum Hexapoda (Hexapods)
      - Class Insecta (Insects)
        - Order Hemiptera (True Bugs, Cicadas, Hoppers, Aphids and Allies)
          - Suborder Heteroptera (True Bugs)
            - Infraorder Pentatomomorpha
              - Superfamily Coreoidea (Leatherbugs)
                - Family Coreidae (Leaf-footed Bugs)
                  - Subfamily Coreinae
                    - Tribe Anisoscelini
                      - Genus *Leptoglossus*
                        - Species *occidentalis* (Western Conifer Seed Bug)

**Other Common Names**

Pine Seed Bug

**Explanation of Names**

*Leptoglossus occidentalis* Heidemann 1910

**Size**

15-20 mm

**Identification**

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**Species *Cicindela limbalis* - Common Claybank Tiger Beetle**

[Classification](#) · [Other Common Names](#) · [Explanation of Names](#) · [Size](#) · [Identification](#) · [Range](#) · [Habitat](#) · [Season](#) · [Life Cycle](#) · [See Also](#) · [Internet References](#)



**Classification**

- Kingdom Animalia (Animals)
  - Phylum Arthropoda (Arthropods)
    - Subphylum Hexapoda (Hexapods)
      - Class Insecta (Insects)
        - Order Coleoptera (Beetles)
          - Suborder Adephaga (Ground and Water Beetles)
            - Family Carabidae (Ground Beetles)
              - Subfamily Cicindelinae (Tiger Beetles)
                - Tribe Cicindelini (Flashy Tiger Beetles)
                  - Genus *Cicindela* (Common Tiger Beetles)
                    - Species *limbalis* (Common Claybank Tiger Beetle)

**Other Common Names**

Green-margined Tiger Beetle

**Explanation of Names**

LIMBALIS: a variation (?) of the Latin "limbus", meaning margin or border - possibly a reference to the thin green border on the elytra (the origin of the common name Green-margined Tiger Beetle)

**Size**

body length 12-16 mm

**Identification**





User ID #:

Taxon ID #:  (you may also enter the text of the taxon name and choose from the drop-down)

Exclude images at species level

Suppress thumbnail images

Phrase in Description:

Month:

States/Provinces:

County/Region:

City/Location:

Adult



Immature

Male

Female

Representative

2 Results

| Thumbnail   | Image ID                | Title              | Date       | State/Province | County/Region | City/Location | Guide Placement   |
|---|-------------------------|--------------------|------------|----------------|---------------|---------------|---|
|  | <a href="#">1369583</a> | Cicindela limbalis | 2017-05-16 | RI             | Washington    | Block Island  | <a href="#">Cicindela limbalis (Common Claybank Tiger Beetle)</a> |
|  | <a href="#">1369584</a> | Cicindela limbalis | 2017-05-16 | RI             | Washington    | Block Island  | <a href="#">Cicindela limbalis (Common Claybank Tiger Beetle)</a> |

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Photo#1369583



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***Cicindela limbalis***

Block Island, Washington County, Rhode Island, USA  
May 16, 2017

I found several of this species (perhaps mixed with *C. purpurea*) along the bluffs in front of my house, Scotch Beach. They were far outnumbered by *Cicindela repanda*, a species I find here commonly throughout the summer.

Images of this individual: tag all



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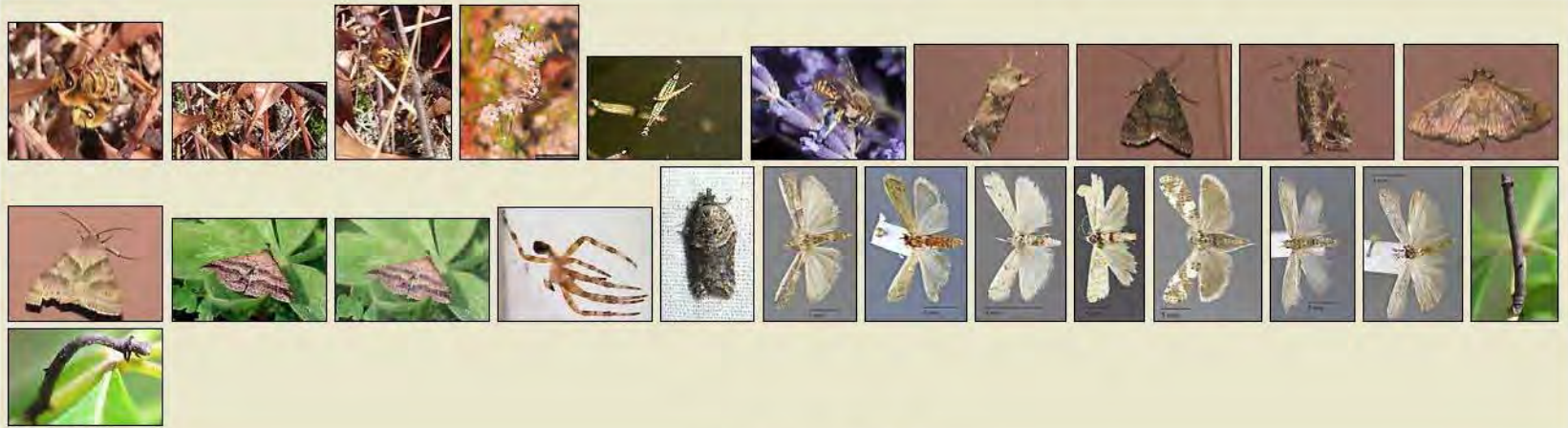
## ID Request

If you have an image of something from North America, north of Mexico that you would like identified, you may add the image to this page. Your image will eventually be moved to the [Guide](#) or, if it does not warrant inclusion there, it will be moved to [Frass](#).

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North American  
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 at the  
 Mississippi Entomological Museum  
 at  
**MISSISSIPPI STATE UNIVERSITY**

Digital Guide to Moth Identification

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**Monograph-type Plates -- Moth Identification Series**  
 (Hodges Check List Sequence)

New! Monograph-type Plates now available using the [Phylogenetic Sequence](#) system adopted in the Pohl et al. 2016 Check List

**L M S** Navigating Through the Plates **L M S**

There are several series of plates showing photos of moths to aid you in their identification. They are listed below in Hodges Check List order, with links on the left to the plates for pinned or museum specimens, and links on the right to two comparable series for living moths. All of the plates in the several series have colored buttons as shown above. These permit you to select Large, Medium or Small page sizes to suit your Internet access or modem speed. For example, the Small page of Collection Specimens will contain 8 rows, each with 6 photographs. Medium pages will display 16 rows while Large pages will contain 32 rows. Once you have a page to view in your browser you will have other navigating choices.

← Last Plate Plate Index Next Plate →

1 2 3 4 5 6 7

Each page has at the bottom a series of navigation buttons similar to those shown here. Each numbered plate represents a family or subfamily, and it may have up to several hundred species/photos. If you hold your cursor over the Last Plate or Next Plate buttons you will see the name of the group you will visit by clicking on that button. The smaller numbered buttons beneath them lead forward or backward through the several pages for the family/subfamily that you selected. Be sure to use these buttons if you wish to continue browsing through the group. Please send comments/suggestions regarding the ease of navigation to [MPG Webmaster](#).

**Recent Developments and Website Update** by Steve N



Ronald W. Hodges

It is with deep sadness that the MPG community bids farewell to one of the last century. We have received word from Eric H. Metzler, P Director of The Wedge Entomological Research Foundation (WERF) that [Hodges](#) passed in December. Ron himself was a board member and a development of The Moths of America North of Mexico. You can read [biography page](#) on the WERF website. Much of what MPG is today is his work and we are very grateful and indebted to him. Below this section by his family.

Since this page was [last updated](#), there have been numerous additions like to share. But a comprehensive report on those changes will have to wait. Instead, I will announce just one of the recent changes we have made. Hodges, I present a new feature of MPG. We have added a [Phylo](#) section which lists species using the phylogenetic sequence number system developed by Robert Patterson and later adopted in 2010 by Don Lafontaine and his seminal "Annotated check list of the Noctuoidea (Insecta, Lepidoptera) of Mexico". In 2016 this list was extended to cover the rest of North America. The provisional check list "Annotated taxonomic checklist of the Lepidoptera of Mexico" by Greg Pohl, Bob Patterson, and Jonathan Pelham was updated, we have updated the MPG website accordingly. We view this as a step in the evolution of the the Hodges 1983 Check List.

-- Steve Nanz

"Ronald William Hodges, 83, died at his home in Eugene, Oregon, on December 12, 2017. He was preceded in death by his wife, Elaine Rita Snyder Hodges. He is survived by his daughter, Elaine Rita Snyder Hodges, and his son, Ronald W. Hodges, Jr. He was a member of the Mississippi Entomological Museum and the Mississippi State University. He was a member of the Mississippi Entomological Museum and the Mississippi State University. He was a member of the Mississippi Entomological Museum and the Mississippi State University."

| Collection Specimens         | Families -- Hodges Numbers                              | Living Moth Photographs                                   |
|------------------------------|---|---|
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| • Plate 02<br><b>L M S</b>   | • 0855-1075 : Oecophoridae - Elachistidae               | • 0855-1075 • Slow 02 • Fast 02<br><b>L M S L M S</b>     |
| • Plate 03<br><b>L M S</b>   | • 1076-1680 : Coleophoridae-Cosmopterigidae             | • 1076-1680 • Slow 03 • Fast 03<br><b>L M S L M S</b>     |
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| • Plate 06<br><b>L M S</b>   | • 2513-2626 : Sesiidae                                  | • 2513-2626 • Slow 06 • Fast 06<br><b>L M S L M S</b>     |
| • Plate 07<br><b>L M S</b>   | • 2627-2700 : Choreutidae-Cossidae                      | • 2627-2700 • Slow 07 • Fast 07<br><b>L M S L M S</b>     |
| • Plate 08.0<br><b>L M S</b> | • 2701-2866 : Tortricidae: Olethreutinae - Olethreutini | • 2701-2866 • Slow 08.0 • Fast 08.0<br><b>L M S L M S</b> |
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### Sphingidae

Refereed

890086 – 7771 – Pink-spotted Hawk Moth – *Agrus cingulata*



© Bob Patterson



© Lynette Schimming



© Nolie Schneider



© Mark de Silva



© Ken Childs

890087 – 7772 – Giant Sphinx Moth – *Cocytius antaeus*



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### Sphingidae

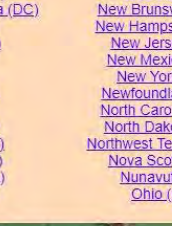
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Want help getting started?

If you're not sure what to do from here, take a look at this Help page for instructions.

GET HELP

Shortcut to Groups

If you already know what group your plant is in, start with the clickable plant map to find your plant more quickly.

VIEW MAP

## Genus: *Solidago* goldenrod

In order to identify some [species](#), you will need to look for [hairs](#) on the seeds. These [hairs](#) develop early and can even be seen when plants are in flower. References: Semple et al. (1999), Semple and Cook (2006).



Family

[Asteraceae \(aster family\)](#)

This Genus's Species in New England:

[Solidago aestivalis](#)

[Solidago altissima](#)

[Solidago arguta](#)

[Solidago bicolor](#)

[Solidago caesia](#)

[Solidago canadensis](#)

[Solidago erecta](#)

# Plants



You are here: [Dichotomous Key](#) > [Asteraceae](#) > [Asteraceae Group 4](#) > [Solidago](#)

## Solidago

SEE LIST OF 25 SPECIES IN THIS GENUS

**Pubescence** of the **cypsel**a body can often be assessed by examining the **ovary** while plants are in flower. Given that the color of **ray flowers** sometimes fades on herbarium specimens with age, some collections of *Solidago* can be difficult to distinguish from small-headed *Symphotrichum*. This confusion can be solved by noting the fresh **ray flower** color on herbarium labels. Hybridization is reported between closely related **species** but does not appear to be a common event on the New England landscape. References: Semple et al. (1999), Semple and Cook (2006).

What's a dichotomous key?

[GET HELP](#)

Jump to a Major Group... ▾

Jump to a family... ▾

Jump to a genus... ▾

**1a.** Capitulescence **nodding at the summit and/or with branches that have secund capitula** [Fig. 452]

SEE LIST OF 14 SPECIES IN 1A

[CHOOSE THIS LEAD](#)

**1b.** Capitulescence **neither nodding at the summit nor with secund capitula** [Fig. 458], either terminal and resembling a thyrse or panicle or consisting of clusters of capitula in the axils of well-developed leaves

SEE LIST OF 12 SPECIES IN 1B

[CHOOSE THIS LEAD](#)

[SHOW ALL COUPLETS](#)

Show photos of: [plant form](#) ▾ Each photo represents **one species** in this genus.



*Solidago aestivalis*



*Solidago altissima*



*Solidago arguta*



*Solidago bicolor*



*Solidago caesia*

## New England Distribution

Adapted from BONAP data

**Native**  
■ county documented



[about the labels on this map](#)

Found this plant? Take a photo and post a sighting.

## North America Distribution

Adapted from BONAP data



[enlarge](#)

Native to North America?

Yes

Synonyms

*Solidago suaveolens* Schoepf

Family

You are here: [Simple Key](#) > [All other flowering non-woody plants](#) > [Daisies, goldenrods, and other aster family plants](#) > *Solidago odora*

# *Solidago odora* Ait.

## licorice goldenrod



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## Facts About

Licorice goldenrod reaches the northern limit of its range in the southern portions of northern New England states. It is absent from Maine. As the common name suggests, it has an anise or licorice [scent](#). A tea can be made from the leaves and dried flowers, drunk by the Cherokee for colds, coughs, fever and [nerves](#).

## Habitat

Anthropogenic (man-made or disturbed [habitats](#)), meadows and fields, woodlands

## Characteristics

|                                    |  |
|------------------------------------|--|
| <b>Habitat</b>                     | <a href="#">terrestrial</a>  |
| <b>New England state</b>           | Connecticut, Massachusetts, New Hampshire, Rhode Island, Vermont   |
| <b>Leaf type</b>                   | leaves are <a href="#">simple</a> (i.e., lobed or unlobed but not separated into <a href="#">leaflets</a> )          |
| <b>Leaf arrangement</b>            | <a href="#">alternate</a> : there is one leaf per <a href="#">node</a> along the stem                                |
| <b>Leaf blade edges</b>            | the edge of the leaf blade has no teeth or lobes   |
| <b>Flower type in flower heads</b> | the flower head has tubular <a href="#">disk flowers</a> in the center and <a href="#">ray flowers</a> , these often |

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## RESOURCES

**FOOD PRESERVATION WORKSHOPS**  
 Website that provides links to a variety of food preservation resources.

**FOOD SAFETY FOR HOME GARDENERS**  
 Website that provides information about home garden food safety best practices.

**NATIVE PLANT SITE SOLUTIONS FOR BACKYARD HABITAT (PDF)**  
 How-to guide for enhancing wildlife habitat value in urban and suburban areas.

**NBC10 PLANT PRO**  
 Weekly video segments on a range of horticultural and agricultural topics.

**RI COASTAL PLANT GUIDE**  
 A digital, interactive searchable database of over 200 native plants suitable for establishment in coastal areas. Developed in 2007.

**RI NATIVE PLANT GUIDE**  
 A digital, interactive searchable database of over 100 plants native to Rhode Island. Developed in 2016.

**RECOMMENDED PLANTINGS FOR MIGRATORY SONGBIRDS (PDF)**  
 Fact sheet detailing the highest valued native plants to migratory songbirds based on nutritional content of the plants.

**RI PLANTING CALENDAR (PDF)**  
 Calendar detailing ideal planting dates for various crops in Rhode Island.

**SCHOOL GARDEN INITIATIVE**  
 Harnesses children's enthusiasm for the natural world, foster environmental awareness, ecological literacy and wellness, and bolster students' understanding of nutrition and food access through outdoor engagement and applied learning in a "living laboratory" – the school garden.

**USE FERTILIZERS AND PESTICIDES RESPONSIBLY (PDF)**  
 Fact sheet listing best practices for fertilizer and pesticide application on residential landscapes.

<https://web.uri.edu/mastergardener/gardening-resources/>





# RHODE ISLAND COASTAL PLANT GUIDE

College of the Environment and Life Sciences  
University of Rhode Island  
ELC Cooperative Extension  
Education, Experience, Excellence for the 21st Century



50 of 231 Species Page 1 of 5 Clear Filter

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| Species   | Common Name            | Zone | Plant Type | Native Status | Full Sun | Shade Tolerant | Drought Tolerant | Wet Sites | Wind Tolerant | Na Spray Tolerant | Na Soil Tolerant | Acid Tolerant | pH Adapt | Rain Gardens | Dune Plant | Height | Width    | Availability                   |
|---|------------------------|------|------------|---------------|----------|----------------|------------------|-----------|---------------|-------------------|------------------|---------------|----------|--------------|------------|--------|----------|--------------------------------|
| <i>Abies concolor</i>                             | White fir              | 2    | Tree       | -             | +        | -              | +                | -         | -             | -                 | -                | +             | +        | -            | -          | >10'   | 15-30'   | 8,10,22,67,74,77,57            |
| <i>Achillea sp.</i>                               | Yarrow                 | 2    | Per.       | -             | +        | -              | +                | -         | +             | -                 | +                | -             | -        | -            | -          | 2-6'   | -        | 28,10,12,22,24,67,74,77,35,51  |
| <i>Aesculus flava (A. octandra)</i>               | Yellow Buckeye         | 2    | Tree       | -             | +        | +              | -                | -         | -             | -                 | -                | -             | -        | -            | -          | >10'   | -        | 10,67                          |
| <i>Aesculus glabra</i>                            | Ohio Buckeye           | 2    | Tree       | -             | -        | -              | -                | -         | -             | -                 | -                | -             | -        | -            | -          | >10'   | 20-40'   | 10,67,74                       |
| <i>Aesculus x carnea</i>                          | Red Horsechestnut      | 2    | Tree       | -             | -        | -              | -                | -         | -             | -                 | -                | -             | -        | -            | -          | >10'   | -        | 10,67,57                       |
| <i>Alnus incana ssp. rugosa</i>                   | Speckled Alder         | 1    | Shrub      | +             | +        | +              | +                | +         | +             | +                 | -                | +             | -        | -            | -          | >10'   | 6-12'    | 10,74                          |
| <i>Alnus serrulata</i>                            | Common Alder           | 1    | Shrub      | +             | +        | +              | +                | +         | +             | +                 | -                | +             | -        | -            | -          | >10'   | 6-12'    |                                |
| <i>Amelanchier arborea !</i>                      | Serviceberry           | 1    | Tree       | +             | +        | +              | +                | -         | +             | +                 | -                | +             | -        | +            | -          | >10'   | 15-25'   | 10,67,74,57                    |
| <i>Amelanchier canadensis !</i>                   | Shadbush               | 1    | Shrub      | +             | +        | +              | +                | +         | +             | +                 | +                | +             | +        | +            | +          | >10'   | variable | 8,10,22,52,74,77,100,57        |
| <i>Amelanchier laevis !</i>                       | Allegheny Serviceberry | 1    | Tree       | +             | +        | +              | +                | -         | +             | +                 | +                | +             | +        | +            | -          | >10'   | 15-25'   | 8,10,67,74,77,57               |
| <i>Amelanchier stolonifera !</i>                  | Running Serviceberry   | 1    | Shrub      | +             | +        | +              | +                | +         | +             | +                 | +                | +             | +        | -            | -          | 2-6'   | variable | 22,67                          |
| <i>Ammophila breviligulata</i>                    | American Beach Grass   | 1    | Grass      | +             | +        | -              | +                | -         | +             | +                 | +                | -             | -        | +            | +          | 2-6'   | -        | 10,12,22,35,67,74,77           |
| <i>Andropogon gerardii</i>                        | Big Bluestem           | 1    | Grass      | +             | +        | -              | +                | -         | +             | +                 | +                | -             | -        | -            | -          | 6-10'  | 2'       | 10,12,35,67,74,100             |
| <i>Andropogon glomeratus</i>                      | Bushy Bluestem         | 2    | Grass      | +             | +        | -              | +                | +         | -             | -                 | -                | -             | -        | -            | -          | <2'    | -        | 8,10,12,35,67                  |
| <i>Andropogon ternarius</i>                       | Split-beard Bluestem   | 2    | Grass      | -             | +        | -              | +                | +         | -             | +                 | +                | -             | -        | -            | -          | 2-6'   | 2-3'     | 67                             |
| <i>Andropogon virginicus</i>                      | Broomsedge             | 1    | Grass      | +             | +        | -              | +                | -         | +             | +                 | +                | -             | -        | -            | -          | 2-6'   | 1-2'     | 12,67                          |
| <i>Arctostaphylos uva-ursi</i>                    | Bearberry              | 1    | Shrub      | +             | +        | +              | +                | -         | +             | +                 | +                | +             | -        | +            | -          | <2'    | variable | 8,10,22,24,41,52,67,74,77,100  |
| <i>Artemisia stelleriana</i>                      | Dusty Miller           | 1    | Per.       | -             | +        | -              | +                | -         | +             | +                 | -                | -             | -        | -            | -          | 2-6'   | 36"      | 2,8,10,12,22,24,67,74,77       |
| <i>Asclepias tuberosa</i>                         | Butterfly Milkweed     | 2    | Per.       | +             | +        | -              | +                | -         | -             | -                 | -                | -             | -        | +            | -          | 2-6'   | 2'       | 8,10,12,22,24,67,74,77         |
| <i>Astilbe sp.</i>                                | Astilbe                | 2    | Per.       | -             | +        | +              | -                | -         | -             | -                 | -                | -             | -        | +            | +          | 2-6'   | -        | 2,8,10,12,22,24,67,74,77,35,51 |
| <i>Atriplex sp.</i>                               | Salt Bush              | 1    | Shrub      | +             | +        | -              | +                | -         | -             | +                 | +                | -             | -        | -            | +          | <2'    | 6'       |                                |
| <i>Baccharis halimifolia</i>                      | Groundsel-bush         | 1    | Shrub      | +             | +        | -              | +                | -         | +             | +                 | +                | +             | +        | -            | -          | >10'   | 5-12'    | 10,74                          |
| <i>Baptisia australis</i>                         | Blue Wild Indigo       | 1    | Per.       | -             | +        | -              | +                | -         | +             | +                 | -                | -             | -        | -            | -          | 2-6'   | 3-4'     | 8,10,12,22,24,67,74,77,100     |
| <i>Baptisia sphaerocarpa</i>                      | Yellow Wild Indigo     | 2    | Per.       | -             | +        | -              | +                | -         | -             | -                 | -                | -             | -        | -            | -          | 2-6'   | 3-4'     | 12,22,67,77                    |
| <i>Baptisia tinctoria</i>                         | False Indigo           | 1    | Per.       | +             | +        | -              | +                | -         | +             | +                 | -                | -             | -        | -            | -          | 2-6'   | 2-3'     | 10,22,67,77                    |
| <i>Betula populifolia</i>                         | Gray Birch             | 2    | Tree       | +             | +        | +              | +                | +         | +             | -                 | -                | -             | +        | -            | -          | >10'   | 10-20'   | 10,22,67                       |
| <i>Calamagrostis x acutiflora 'Karl Foerster'</i> | Feather Reed Grass     | 2    | Grass      | -             | +        | -              | +                | +         | -             | -                 | -                | -             | -        | -            | -          | <2'    | 5-7'     | 28,10,12,22,24,52,67,74,77     |
| <i>Carex flaccosperma</i>                         | Thin Fruit Sedge       | 2    | Grass      | +             | +        | +              | +                | -         | -             | -                 | -                | +             | +        | -            | -          | <2'    | 6-12"    | 10,12,24,67                    |
| <i>Carex pensylvanica</i>                         | Pennsylvania Sedge     | 1    | Grass      | +             | +        | +              | +                | -         | +             | -                 | -                | +             | -        | -            | -          | <2'    | 6-9"     | 10,12,24,67,74,100             |
| <i>Carex platyphylla</i>                          | Broadleaf Sedge        | 2    | Grass      | +             | -        | +              | +                | -         | +             | -                 | -                | +             | +        | -            | -          | <2'    | 10"      | 10,12,22,24,35,67              |
| <i>Carex stricta</i>                              | Tussock Sedge          | 2    | Grass      | +             | +        | +              | +                | +         | -             | -                 | -                | +             | -        | +            | -          | <2'    | 1.5-2'   | 10,12,22,24,35,67,74           |
| <i>Carva ovata</i>                                | Shanbark Hickory       | 2    | Tree       | +             | +        | +              | +                | -         | -             | -                 | -                | +             | +        | -            | -          | >10'   | -        | 10,74                          |

<http://cels.uri.edu/testsite/coastalPlants/CoastalPlantGuide.htm>



## RHODE ISLAND COASTAL PLANT GUIDE

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### *Asclepias tuberosa*

#### Butterfly Milkweed

Perennial with orange flowers in summer which attract butterflies. Full sun, poor dry soil. Native to RI. 1.5-3' x 2'.



Ted Bodner @ USDA-NRCS PLANTS Database / James H. Miller and Karl V. Miller. 2005. Forest plants of the southeast and their wildlife uses. University of Georgia Press., Athens.



Ted Bodner @ USDA-NRCS PLANTS Database / James H. Miller and Karl V. Miller. 2005. Forest plants of the southeast and their wildlife uses. University of Georgia Press., Athens.

[\(Back to Coastal Plant Guide\)](#)



## RI NATIVE PLANT GUIDE

Cooperative Extension

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RI Native Plant Guide  
developed in collaboration  
with the Rhode Island Natural  
History Survey and their  
Rhody Native Initiative.



locally sourced | locally grown



### RI NATIVE PLANT GUIDE

[Visit](#)

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Search:

Type (T):

Exposure:

Moisture:

Wildlife:

Uses:

Height:

Coastal (CT):

Rhody Native™ (RN):

"Native" species are those believed to have been present in the state prior to European settlement that began in the 15th century. (*Vascular Flora of Rhode Island*. Kingston: Rhode Island Natural History Survey, 1998.)

[What are Native Plants?](#)

<https://web.uri.edu/rinativeplants/>

[Visit](#)

### *Asclepias tuberosa ssp. tuberosa* (butterfly milkweed)

|                       |           |                   |         |
|-----------------------|-----------|-------------------|---------|
| Plant Type:           | Perennial | Coastal Tolerant: | Yes     |
| Full Sun:             | Yes       | Height:           | 1-2.5'  |
| Shade Tolerant:       | No        | Width:            | 1-1.5'  |
| Dry/Drought Tolerant: | Yes       | Rhody Native™:    | Yes     |
| Wet Sites:            | No        | Status:           | Concern |

#### Available at:

##### Nursery/Garden Center

|                            |                      |
|----------------------------|----------------------|
| Blue Moon Farm Perennials  | <a href="#">info</a> |
| Chase Farms Inc.           | <a href="#">info</a> |
| Evergreen Tree & Landscape | <a href="#">info</a> |
| the Farmer's Daughter      | <a href="#">info</a> |
| Pleasant Acres Nursery     | <a href="#">info</a> |
| Wildwood Nurseries         | <a href="#">info</a> |
| Rhody Native               | <a href="#">info</a> |

#### Photo Gallery:





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## NatureServe Explorer®

An Online Encyclopedia of Life

### Overview

NatureServe Explorer® provides authoritative conservation information on more than 70,000 plants, animals, and habitats of the United States and Canada.

This free searchable public database represents 40 years of field work, ecological inventory, and scientific database development by NatureServe, its **network members**, and hundreds of botanists, zoologists, ecologists, and information specialists.

### Value

Visitors to the site find the most comprehensive information available, particularly about rare and endangered species. Colorful distribution maps show where each species and ecosystem occurs, plus how rare or common it is in each place.

Searching NatureServe's dynamic interactive database, users find answers to an unending range of questions:

- What mammals live in my state?
- Which of them are endangered or threatened?
- What kinds of frogs might we find in the woods near our school?

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**Learn More**

**Additional Resources:**

- NatureServe Explorer - Fact Sheet

**Purpose**

- Information Access & Interoperability

**Conservation Topic**

- Imperiled Species
- Threatened Ecosystems
- Conservation Status

natureserve.org

The screenshot shows the NatureServe Explorer website. The top left features the logo with the text "NatureServe EXPLORER." and a blue circular icon. To the right, it says "An Online Encyclopedia of Life" and "NatureServe" with a small bird icon. A navigation bar contains links for "Search", "About Us", "About the Data", "Local Programs", and "Help". Below the navigation bar, a large image of a pond with lily pads is on the left. The main content area on the right has a yellow background and includes a "Species Quick Search" section with a search box containing "fisher" and a "GO" button. Below the search box, there is a map of the United States with a butterfly icon overlaid. The text on the right side of the page includes a welcome message, a list of search criteria, and a list of features available in the database. At the bottom, there are links for "NatureServe Website", "Support Us", "Feedback", and "Offices Thanks To", along with a note about browser requirements.

**NatureServe EXPLORER.**

An Online Encyclopedia of Life **NatureServe**

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Welcome to **NatureServe Explorer**, an authoritative source for information on more than 70,000 plants, animals, and ecosystems of the United States and Canada. Explorer includes particularly in-depth coverage for rare and endangered species.

**Species Quick Search**

fisher

GO

or search [Species](#) and/or [Ecological Communities & Systems](#) by Name, Taxonomy, Location, or Conservation Status.

NatureServe Explorer is a product of [NatureServe](#) and its natural heritage member programs.

Use the database to easily find:

- scientific and common names
- conservation status
- distribution maps
- images for thousands of species
- life histories, conservation needs, and more

NatureServe Website | Support Us | Feedback | Offices Thanks To

Website requires Internet Explorer 5.0 or Netscape 4.06 or higher

**Highlights**

**March 2018 Data Refresh!**  
Updated information for thousands of species and ecological communities.

Due to latency between updates made in state, provincial or other NatureServe Network databases and when they appear on NatureServe Explorer, for state or provincial information you may wish to contact the data steward in your jurisdiction to obtain the most current data. Please refer to [our Distribution Data Sources](#) to find contact information for your jurisdiction.

**Make A Difference! Support NatureServe Today.**

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Search Results: 1 - 6 of 6 records matching [your criteria](#)  
[Plants/Animals: 6](#) | [Systems: 0](#) | [Associations: 0](#) | [Alliances: 0](#)

Show Details:  Yes  No


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**Plant/Animal Records**  = Selected for report browsing.

| Browse<br><input checked="" type="checkbox"/><br>(Unique ID)   | Scientific Name<br>Common Name   | Status      |        |         | Distribution:<br>United States & Canada   | Image<br>Available  |
|--|--|-------------|--------|---------|---|---|
|  |  | NatureServe | US ESA | COSEWIC |   |   |
| <b>Animals, Invertebrates <i>Insects</i></b>                   |  |             |        |         |   |   |
| <input checked="" type="checkbox"/><br>2.960830                | <a href="#">Melangyna fisheri</a><br>a flower fly  | GNR         |        |         | CAN: NB, NS, YT<br>4  |   |
| <b>Animals, Invertebrates <i>Millipedes and Centipedes</i></b> |  |             |        |         |   |   |
| <input checked="" type="checkbox"/><br>73.27956                | <a href="#">Pseudotremia piscator</a><br>Fisher Cave Milliped                              | G1          |        |         | USA: VA<br>4  |   |
| <b>Animals, Vertebrates <i>Mammals</i></b>                     |  |             |        |         |   |   |
| <input checked="" type="checkbox"/><br>2.103714                | <a href="#">Pekania pennanti</a><br>Fisher   | G5          |        |         | CAN: AB, BC, MB, NB, NS, NT, ON, QC, SK, YT<br>USA: CA, CT, IA*, ID, IL*, IN*, MA, MD, ME, MI, MN, MT, NC*, ND, NH, NJ, NY, OH*, OR, PA, RI, TN, VA, VT, WA, WI, WV, WY |  |
| <input checked="" type="checkbox"/><br>2.101770                | <a href="#">Pekania pennanti pop. 1</a><br>Fisher - West Coast Distinct Population Segment | G5T2T3Q     |        |         | USA: CA, OR, WA<br>4  |   |
| <b>Plants, Vascular <i>Flowering Plants</i></b>                |  |             |        |         |   |   |
| <input checked="" type="checkbox"/><br>2.143329                | <a href="#">Astragalus piscator</a><br>Fisher Milkvetch                                    | G2G3        |        |         | USA: AZ, CO, UT   |   |
| <input checked="" type="checkbox"/><br>2.180579                | <a href="#">Dupontia fisheri</a><br>Fisher's Dupontia                                      | G5          |        |         | CAN: LB, MB, NT, NU, ON, QC, YT<br>USA: AK  |   |

<sup>4</sup>**Incomplete Distribution Data:** Distribution data for U.S. states and Canadian provinces is known to be incomplete or has not been reviewed for this taxon.

<sup>7</sup> **Animal Intraspecifics:** This is a record for an infraspecific taxon. For most animal populations and subspecies, additional conservation information is maintained in the "full" species record.

**Extirpated:** The species is extirpated in the subnation.


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Your Current Plant/Animal Search Criteria  
 Species, Subspecies, Varieties, and Populations





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***Pekania pennanti*** - (Erxleben, 1777)  
 Fisher  
 Other English Common Names: fisher  
 Synonym(s): *Martes pennanti* (Erxleben, 1777)  
 Taxonomic Status: Accepted  
 Related ITIS Name(s): *Martes pennanti* (Erxleben, 1777) (TSN 180560)  
 French Common Names: pékan  
 Unique Identifier: ELEMENT\_GLOBAL 2.103714  
 Element Code: AMAJF01020  
 Informal Taxonomy: Animals, Vertebrates - Mammals - Carnivores
















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| Kingdom  | Phylum   | Class    | Order     | Family     | Genus   |
|----------|----------|----------|-----------|------------|---------|
| Animalia | Craniata | Mammalia | Carnivora | Mustelidae | Pekania |

Genus Size: A - Monotypic genus

Check this box to expand all report sections:

|  |  |
|--|--|
| Concept Reference                          | <a href="#">Expand</a>    |
| Conservation Status                        | <a href="#">Expand</a>    |
| Distribution                               | <a href="#">Expand</a>    |
| Ecology & Life History                     | <a href="#">Expand</a>  |
| Economic Attributes                        | <a href="#">Expand</a>  |
| Management Summary                         | <a href="#">Expand</a>  |
| Population/Occurrence Delineation          | Not yet assessed        |
| Population/Occurrence Viability            | <a href="#">Expand</a>  |
| U.S. Invasive Species Impact Rank (I-Rank) | Not yet assessed        |
| Authors/Contributors                       | <a href="#">Expand</a>  |
| References                                 | <a href="#">Expand</a>  |
| Use Guidelines & Citation                  | <a href="#">Expand</a>  |



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Version 7.1 (2 February 2009)



## **BIOBLITZ: Another source of biodiversity info**

**18** annual events

**2,749** participants

**17,914** species



|                           |    |
|---------------------------|----|
| Mourning Dove             | 16 |
| Great Crested Flycatcher  | 16 |
| Eastern Kingbird          | 16 |
| Blue Jay                  | 16 |
| American Crow             | 16 |
| Black-capped Chickadee    | 16 |
| Tufted Titmouse           | 16 |
| Gray Catbird              | 16 |
| Yellow Warbler            | 16 |
| Song Sparrow              | 16 |
| Northern Cardinal         | 16 |
| American Goldfinch        | 16 |
| Ruby-throated Hummingbird | 15 |
| Northern Flicker          | 15 |
| Red-eyed Vireo            | 15 |
| Tree Swallow              | 15 |
| American Robin            | 15 |
| Cedar Waxwing             | 15 |
| American Redstart         | 15 |
| Chipping Sparrow          | 15 |
| Common Grackle            | 15 |
| Brown-headed Cowbird      | 15 |
| Chimney Swift             | 14 |
| Eastern Phoebe            | 14 |
| White-breasted Nuthatch   | 14 |
| Carolina Wren             | 14 |
| Wood Thrush               | 14 |
| Ovenbird                  | 14 |
| Common Yellowthroat       | 14 |
| Eastern Towhee            | 14 |
| Red-winged Blackbird      | 14 |

## most common: birds

*(in descending order, out of 16 bioblitzes held during June, w/ number of instances)*

## most common: mammals

*(in descending order, out of 16 bioblitzes held during June, w/ number of instances)*

|                                  |    |
|----------------------------------|----|
| Humans                           | 18 |
| White-tailed Deer                | 16 |
| White-footed Mouse               | 15 |
| Eastern Gray Squirrel            | 15 |
| Eastern Chipmunk                 | 15 |
| Feral Dog, Domestic Dog          | 13 |
| Coyote                           | 13 |
| Eastern Cottontail               | 12 |
| Bat sp.                          | 12 |
| Common Raccoon                   | 10 |
| Feral Cat, Domestic or House Cat | 9  |
| Common Muskrat                   | 8  |
| Woodchuck, Groundhog             | 8  |
| Red Squirrel                     | 8  |
| Meadow Vole                      | 7  |
| Striped Skunk                    | 7  |
| Southern Flying Squirrel         | 6  |
| Northern River Otter             | 6  |
| American Mink                    | 6  |
| Horse                            | 6  |
| Southern Red-backed Vole         | 5  |
| Red Fox                          | 5  |
| American Beaver                  | 4  |