

R H O D E I S L A N D



NATURAL HISTORY SURVEY

Providing Ecosystem Science and Information

State Wildlife Action Plan (SWAP) 2015

1. distribution and abundance of wildlife species (referred to as SGCNs) indicative of diversity and health of wildlife in the state
2. location and relative condition of key habitats essential to SGCNs
3. problems affecting SGCNs and their habitat and priority information needs for successful management/restoration of same
4. actions necessary to conserve SGCN and their habitats
5. provisions for monitoring SGCN and habitats as well as effectiveness of conservation actions
6. provisions to review the SWAP in 10 years
7. provisions for broad coordination among agencies during writing and revising the SWAP
8. provisions for necessary public participation in writing and revising the SWAP

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SWAP Species of Greatest Conservation Need (SGCN) Profiles

**DRAFT Rhode Island Wildlife Action Plan Species Profiles
Species of Greatest Conservation Need**

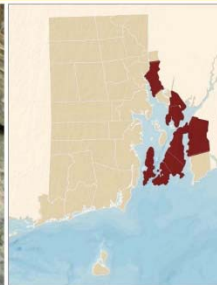
Northern Leopard Frog

Lithobates pipiens

HERPETOFAUNA
Amphibians



Photo: J. Christopher Powell



*See map disclaimer in profiles introduction

Distribution & Abundance

This species is one of Rhode Island's most threatened amphibians because populations are extremely localized geographically and occur within rapidly developing landscapes. Road mortality has been an issue at many sites and the success of wildlife tunnels at one locality has not been determined. Breeding sites are ephemeral or semi-permanent ponds. Alternate habitats include wet meadows and marshes

Habitat Community: Shrub Swamp/Wet Meadow, Type: Shrub Swamp/Wet Meadow

Status

IUCN Rank: LC. STSTAT: C. SRANK: S2. GRANK: G5. RSGCN: L-H. PARC: 1. CODES: RES. Res/B: 1. GRP: 8. PRIOR: 1. NEPARC: HC Northeast comprises <50% of US distribution: > 50% of states listed in WAP. Climate Change Vulnerability: 2030 (Precipitation change)

Threats and Actions

Threat 1 - Agriculture and aquaculture; Upland habitat highly developed for agriculture

- Actions:
- *Site/area protection; Large landscape species; also wherever possible, 'soft' approaches (such as beach nourishment, vegetative plantings, and placement of large woody debris) to shoreline modifications should be used. Rank: 3*
 - *Resource and habitat protection; Breeding sites not protected. Rank: 3*
 - *Alliance and partnership development; Development of conservation partnerships will be necessary to protect wetlands and associated upland habitats. Rank: 3*
 - *Policies and regulations; Need policies and regulations to protect wetlands and associated uplands. Rank: 3*
 - *Awareness and communications; Need to educate the public about habitat loss and species' life history, publish the Amphibians of Rhode Island. Rank: 3*
 - *Data collection and analysis; Research abundance and distribution of species for which status and habitat can be determined, by including additional data collection in present studies. Rank: 3*

Threat 2 - Agricultural and forestry effluents; Pollution in breeding habitats from agriculture

- Actions:
- *Site/area management; Requires hayfields or grazing or mowing regimes, work with farmers. Rank: 3*

Threat 3 - Dams and water management/use; Water withdrawal and water restrictions due to culverts

- Actions:
- *Resource and habitat protection; Protect natural hydrology. Rank: 3*

**DRAFT Rhode Island Wildlife Action Plan Species Profiles
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- *Habitat and natural process restoration; Restore natural hydrology where possible, look for opportunities to modify culverts, work with RI DOT. Rank: 3*

Threat 4 - Invasive non-native/fallen species; Disease

- Actions:
- *Species management; Monitoring and management. Rank: 3*

Threat 5 - Droughts; Drying of breeding sites

- Actions:
- *Policies and regulations; Needed to address climate change. Rank: 3*

Threat 6 - Natural system modifications; Loss of habitat from plant succession

- Actions:
- *Data collection and analysis; Identify priority parcels needing serial-stage management, especially for Lepidoptera habitat. Rank: 3*
 - *Species management; Manage important habitats as required. Rank: 3*
 - *Habitat and natural process restoration; Construct and maintain new amphibian habitat, and breeding habitat (seasonal pond project). Rank: 3*

Threat 7 - Lack of information; Lack of information from research to address habitat and taxonomic issues

- Actions:
- *Data collection and analysis; Assess taxonomy/population relationships. Rank: 2*

Refer to the Community: Shrub Swamp/Wet Meadow, Type: Shrub Swamp/Wet Meadow - Habitat Profile for additional threats to this species.

Pitch Pine Woodland/Barren

GCN HABITATS



Description

Pitch pine woodlands and barrens are dry, fire-adapted communities with a variable canopy dominated by pitch pine and an understory of tall shrubs, especially scrub oak, and a low shrub layer of blueberry and other heaths. A variable amount of mixed oaks may be present in the overstory depending on frequency of fire. A more frequent fire rotation of 10 or fewer years may foster the growth of stunted pines, dense scrub oak, and scattered open patches of bare sand. Scrub oak stands may occur without pine cover, particularly in low-lying areas where cold-air drainage inhibits pine growth. The NETHCS classification identifies coastal and interior subtypes of pitch pine communities that are similar in structure and composition, but each type has species not shared by the other. Pitch pine barrens support a unique assemblage of priority moth and butterfly species that generally depend on a single larval food plant unique to these communities. Examples include the barrens buck moth, which utilizes scrub oak, and frosted elfin and persius duskywing that depend on wild lupine. Tiger beetles are a characteristic group of insects that require open, sandy patches for hunting and burrowing. Embedded within some pitch pine areas are vernal pools and other shallow wetlands that support a unique herpetile fauna, including the Eastern spadefoot. Young, fire-maintained pitch pine woodlands provide nesting habitat for several priority birds

Condition

Pitch pine communities were historically widespread predominantly in Kent and on sandy soils of outwash and glaciofluvial origin. One estimate of the original cover of Rhode Island is 30,000 acres (Bromley 1935). Following settlement, pitch pine communities were reduced by agriculture and later residential development, and today they cover only about 10% of their original extent. Most of this habitat occurs in two linear bands across the state: one in the Charlestown recessional moraine, and the second further north in the Arcadia Moraine east to West Greenwich, Warwick and Prudence Island.

Species

Birds

- Eastern Whip-poor-will (*Antrastomus vociferous*)
- Black-billed Cuckoo (*Coccyzus erythrophthalmus*)
- Nashville Warbler (*Oreothlypis ruficapilla*)

Herpetofauna

- Fowler's Toad (*Anaxyrus fowleri*)
- Eastern Hog-nosed Snake (*Heterodon platirhinos*)
- Eastern Spadefoot (*Scaphiopus holbrookii*)

Invertebrates

- False Mealworm Beetle (*Alabates maria*)
- Seed-eating Ground Beetle (*Amara chalcea*)

SWAP Key Habitat Profiles

DRAFT Rhode Island Wildlife Action Plan Habitat Profiles

Upland (Open Uplands (Grassland & Shrubland))

Pitch Pine Woodland/Barrens - Pitch Pine Woodland

Condition: fair; invasives. Importance to Biodiversity: 3. Degree of Threat: 2; ATVs, invasives.

Threat 1 - ATV use, trampling of habitat.

- Actions:
 - Site/area protection; Identify and acquire key parcels for fee purchase and easement. Rank: 2
 - Resource and habitat protection; Control public access. Rank: 1.5
 - Site/area management; Control public access. Rank: 1.5

DRAFT Rhode Island Wildlife Action Plan Habitat Profiles

- Lagrid Beetle (*Anaetides brunneus*)
 - Short-lined Chocolate (*Argyrostris anilis*)
 - Frosted Elf (*Collophrys (Decid.) irus (Baptisia type) AND Collophrys (Decid.) irus (Lupine type)*)
 - Hoary Elf (*Collophrys palos*)
 - Underwing Moth (*Catocala n. sp.*)
 - Barrens Chaetagnia (*Chaetagnia tremula*)
 - Big Sand Tiger Beetle (*Cicindela formosa generosa*)
 - Cow Path Tiger Beetle (*Cicindela purpurea purpurea*)
 - Oblique-lined Tiger Beetle (*Cicindela tranquebarica tranquebarica*)
 - Festive Tiger Beetle (*Cicindela scutellans rugifrons*)
 - Contracted Datana (*Datana contracta*)
 - Sleepy Duskywing (*Erynnis persia*)
 - Persius Duskywing (*Erynnis persius*)
 - Ground Beetle (*Geopinus incrassatus*)
 - Eastern Buck Moth (*Hemileuca maia*)
 - Noctuid Moth (*Hyperstrotia flaviguttata*)
 - Bee-like Robber Fly (*Lophia championi*)
 - Robber Fly (*Pogonocoma dasatum*)
 - Edward's Hairstreak (*Satyrium edwardsii*)
 - German Cousin (*Sideridis congermana*)
 - Marooning Moth (*Sideridis marys*)
 - Blueberry Sallow (*Symptistis dentata*)
 - Joyful Holomelina Moth (*Virbia laeta*)
 - Barrens Xylotape (*Xylotape capax*)
 - Black-eyed Zale (*Zale curema*)
 - Pine Barrens Zale (*Zale lunifera*)
 - Gray Spring Zale (*Zale submediana*)
 - Pine Barrens Zanclognatha (*Zanclognatha martha*)
- Mammals**
- Eastern Mole (*Scalopus aquaticus*)

Threats and Actions by Community Type

Upland (Coniferous Woodlands & Forests)

Pitch Pine Woodland/Barren - Barren

Condition: fair. Importance to Biodiversity: 3. Degree of Threat: 2; residential development, lack of natural disturbance (fire).

Threat 1 - Highly developable habitat type; large portions already fragmented by housing (e.g., Kingston Pine Barrens)

- Actions:
 - Site/area protection; Identify and acquire key parcels for fee purchase and easement. Rank: 3
 - Resource and habitat protection; Identify and acquire key parcels for fee purchase and easement. Rank: 3
 - Policies and regulations; identify and influence mechanisms for incentivizing land owners for conservation and watershed protection (farm, forest and OS; local planning policies that make it possible for land owners to economically benefit) Rank: 2.5

Threat 2 - Fire-dependent community, there-fore fire suppression is threat.

- Actions:
 - Site/area management; Controlled burns, selective harvesting. Rank: 3
 - Habitat and natural process restoration; high, restore plants (e.g., lupine) for pollinators (frosted elfin, etc.) Rank: 2

Threat 3 - This community has not been prone to the spread of invasives

- Actions:
 - Invasive/problematic species control; Early detection; Provide control where needed Rank: 2

Threat 4 - Demographic changes from excessive deer browsing

- Actions:
 - Invasive/problematic species control; Provide additional hunting opportunities in problem areas; Provide deer control where needed Rank: 2

RI Ecological Community Classification

Heritage Areas via RIGIS

Rhode Island Ecological Community Classification

By
Richard W. Enser



Coastal Plain Pastland, Grasswood Fen, Great Swamp Management Area

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 University of Rhode Island
 Peter August, Charles LaBash
 The Nature Conservancy
 Scott Comings, Kevin Ruddock

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

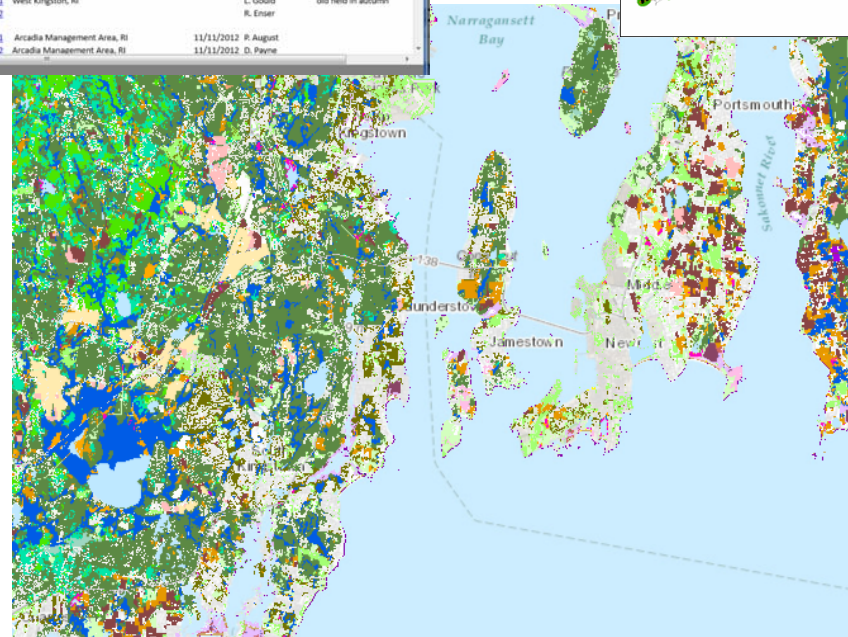
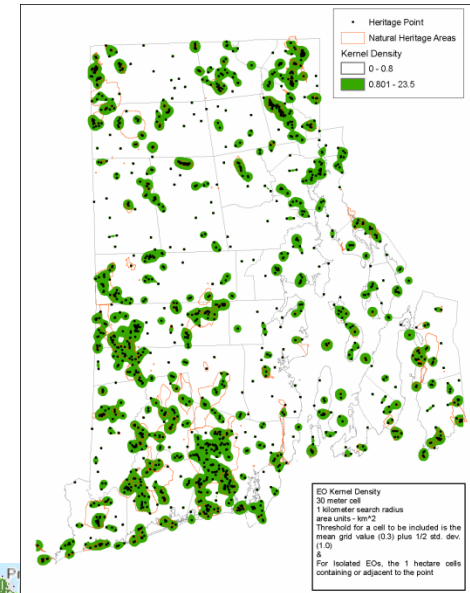
RI Ecological Communities Photo Atlas

Atlas pages prepared by Elissa Monahan and Daphne Payne, URI.
 Project sponsored by the RI Conservation Stewardship Collaborative

[RI Ecological Community Classification, Enser et al., 2011](#)

Click on the Photo ID to view the photograph. Photographs may not be used for commercial purposes without the consent of the photographer.
 For further information, contact [Peter August](#)

System	Class	Community	Type	Sub-type	Photo ID	Site	Date	Photographer	Comments
Upland System									
Open Grassland									
Coastal Grassland									
		Maritime Beach Strand			111101	Moonstone Beach, S. Kingstown, RI	Nov-97	L. Gould	
		Maritime Herbaceous Dune			111201	Napatree Point, Westerly, RI	12-Nov	P. August	
		Maritime Grassland							
Coastal Shrubland									
		Maritime Shrub Dune			112101	Napatree Point, Westerly, RI	12-Nov	P. August	
		Maritime Shrubland			112201	Rodman Hollow, New Shoreham, RI	5/20/1980	I. Stuckey	
					101	West Kingston, RI		L. Gould	old field in autumn
					102			R. Enser	
					201	Arcadia Management Area, RI	11/11/2011	P. August	
					202	Arcadia Management Area, RI	11/11/2012	D. Payne	



www.edc.uri.edu/RIECCAtlas

www.arcgis.com...search RI Ecological Communities Classification

Napatree Point Conservation Area Coastal Resilience Demonstration Site



Invasives removal
Plant biodiversity
Habitat structure
Community engagement



Engage the community
in the environment



Salt marsh grasses
for restorations





Rhody Native: locally grown, locally sourced native plants for landscaping and restoration
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 more information: rhodynative.com

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Providing Ecosystem Science and Information

Biodiversity Monitoring and Outreach

BioBlitz 2014: Rocky Point, Warwick

Rocky Point, Warwick

972 Species

Rain, as usual

A great site for birds

Best effort yet by the Marine Team

Lots of community support!



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



CSC Mission:

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

CSC Principles:

- Protect long-term viability of areas set aside to sustain fauna, flora, ecosystem services, and cultural and aesthetic characteristics from legal and political threats to their protected status as well as ecological threats to their conservation values.
- Encourage stewardship of each protected property in cognizance of and in consistency with its place in the larger, landscape-scale network of protected areas.
- Foster cooperation, collaboration, and partnering to effectively and efficiently steward protected areas.
- Disseminate broadly the decisions made, lessons learned, practices adopted, and knowledge acquired through CSC activities.
- Involve citizen volunteers and students in on-the-ground activities to ensure successful, sustainable stewardship.
- Use and encourage others to use coordinated, well-managed, accessible databases of information relevant to the stewardship of conservation areas.
- Be nimble and responsive to unanticipated threats (environmental, political, and legal) to conservation areas, but also capable of sustained focus on priority projects.