

# **Shared Ecological Priorities:**

## *Northeast Regional Conservation Opportunity Areas*

### *Version 1.0*

## **Update for Regional Conservation Partnerships**

**November 2016, 2016**

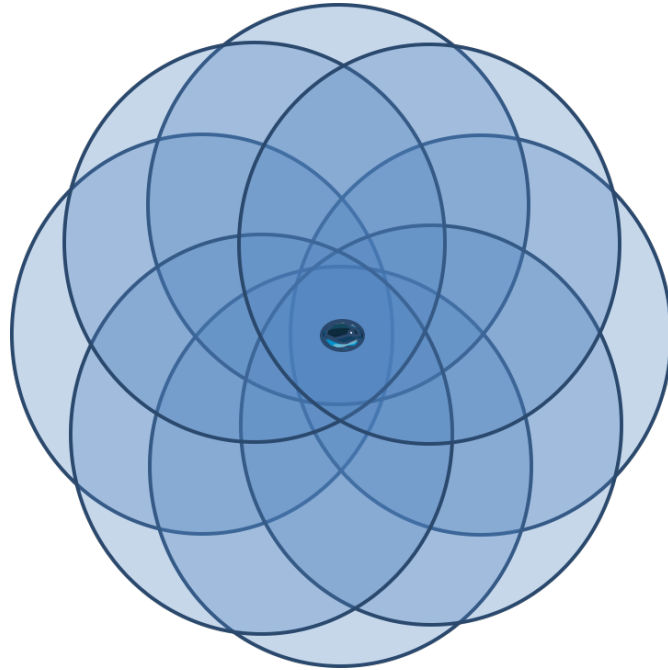
**Steve Fuller, USFWS-North Atlantic LCC**



# Vision

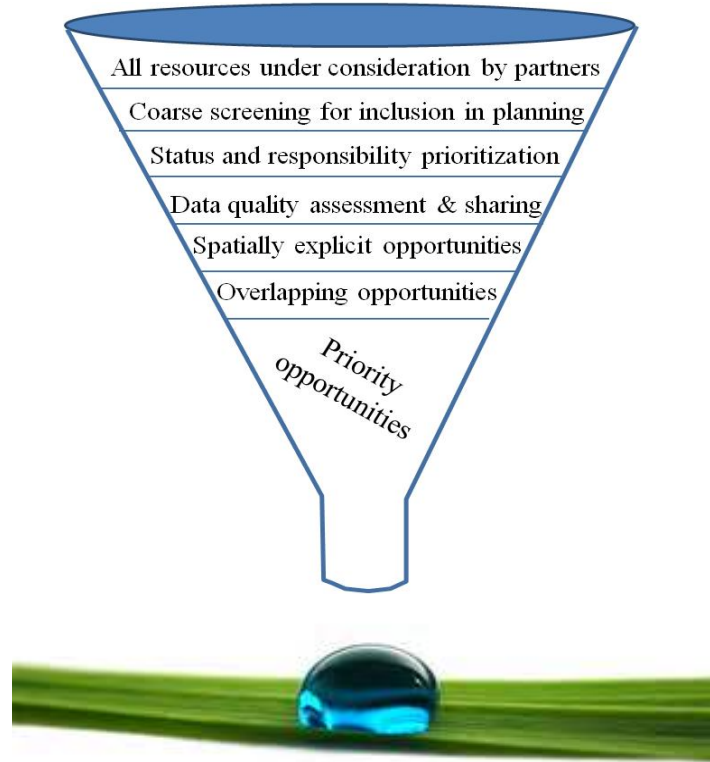
A **connected** network of **resilient** and **ecologically intact** habitats that will support **biodiversity** under changing conditions...

# We need aligned priorities

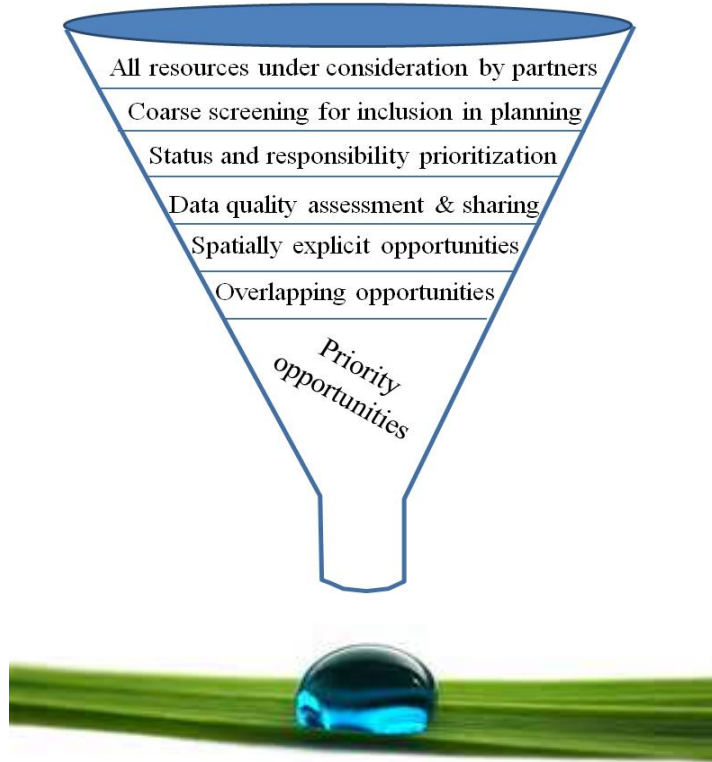


**The intersection of places and missions of partners.**

# We need aligned priorities



# We need aligned priorities



**Right**  
**Now**

# We need aligned priorities

We have them!

# What we did

A team of partners from **13 states, the NALCC, USFWS, NGOs**, and universities worked together to **align priorities** and map opportunities for unified conservation action across the Northeast region.

# What it means

The project mapped a landscape pattern and created a **suite of resources** that partners can **use voluntarily** to help **identify opportunities for conserving key habitats** and the species that depend on them.



# What it means

**New tools for aligning priorities can help partners to:**

- **“all pull in the same direction”**
- **base actions on science**
- **implement efficiently and with precision**

# Summary of Review Process

## Snapshot of participants in August webinar series

<b>TOPIC</b>	<b>ATTENDEES</b>	<b>AGENCIES/ ORGS</b>	<b>STATES</b>
<b>Overview of Data Use &amp; Application (Repeated 4 times)</b>	60	25	MA, MD, NH, NJ, NY, PA, RI, VA
<b>Terrestrial Core Networks</b>	19	10	MA, ME, NH, NJ, PA, VA
<b>Connectivity</b>	19	8	ME, NH, NJ, VA
<b>Restoration</b>	17	8	MA, ME, NH, NJ, VA
<b>Aquatic Core Networks</b>	11	8	ME, NJ, VA
<b>Important Habitats</b>	19	8	NH, NJ, PA, RI, VA

# Introduction

## Objectives

### CORE AREAS

Identify intact landscapes that, if protected or maintained in their current condition, may support the greatest diversity of species and their habitats in the Northeast.

### IMPERILED & SGCN HABITATS

Identify areas important to imperiled species and SGCN, occurring outside of core areas identified above, that if protected, would help secure their habitat in the Northeast.

### RESTORATION

Identify areas of degraded habitat having high restoration potential, that if restored would contribute to the conservation opportunity areas identified above.

### CONNECTIVITY

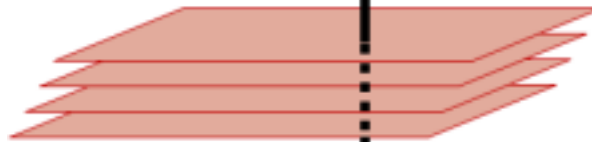
Identify areas that enhance the connectivity and ecological function of landscapes that are important to support biodiversity, imperiled species, and SGCN as identified above.

# Design Builds Upon a Host of Datasets and Assessments

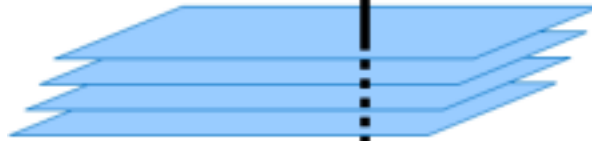
Habitat for dozens of species of fish and wildlife



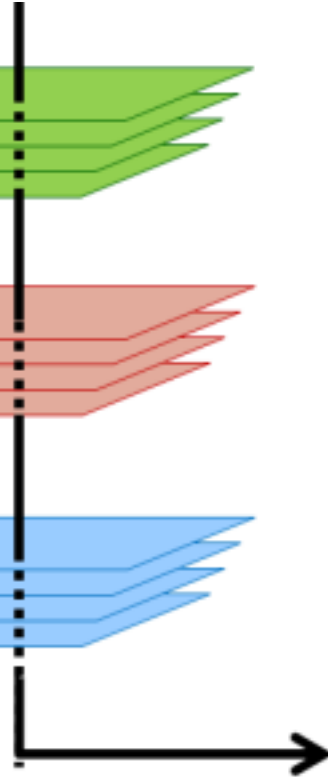
Integrity and resilience of ecosystems



Locations of rare natural communities



Regional Conservation Opportunity Areas

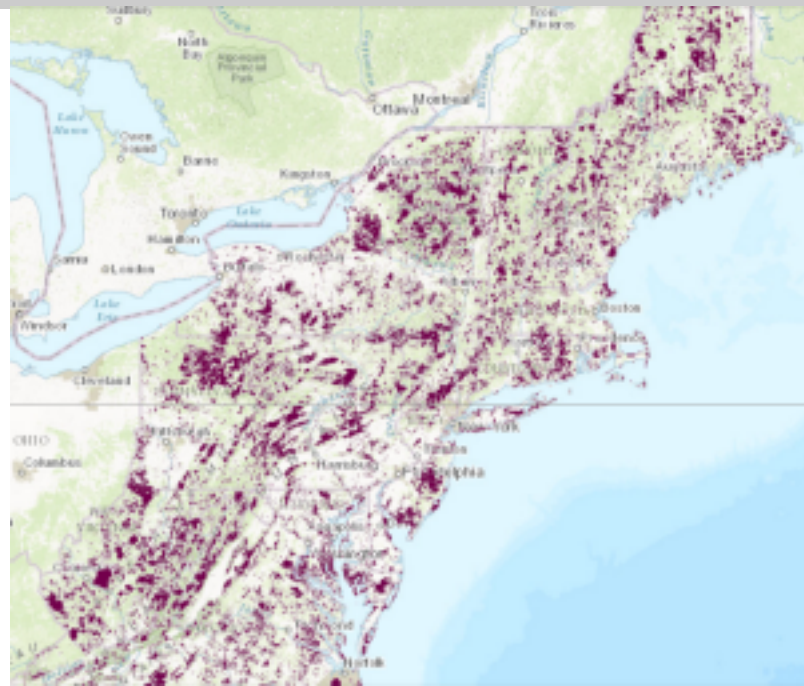


# Core habitat network

Based on terrestrial and aquatic habitats (Northeast Habitat Classification)

Mapped core areas show alignment of:

- **UMASS** Index of Ecological Integrity
- **TNC** Resiliency
- Representative species
- State Natural Communities

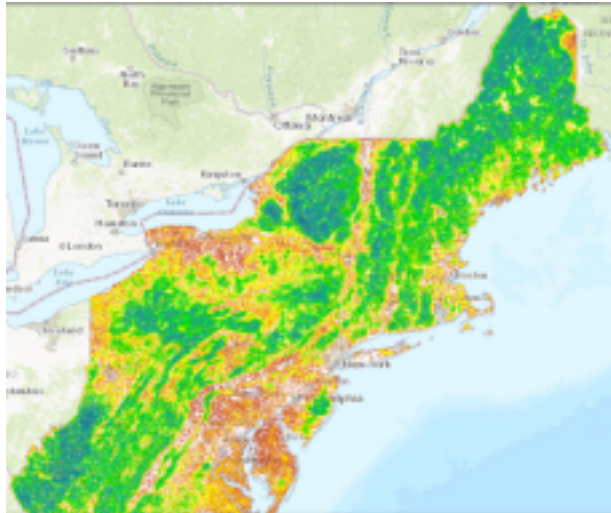


# Habitat for Representative Species

UMass Designing Sustainable Landscapes project + others



30 representative species of  
terrestrial and wetland wildlife



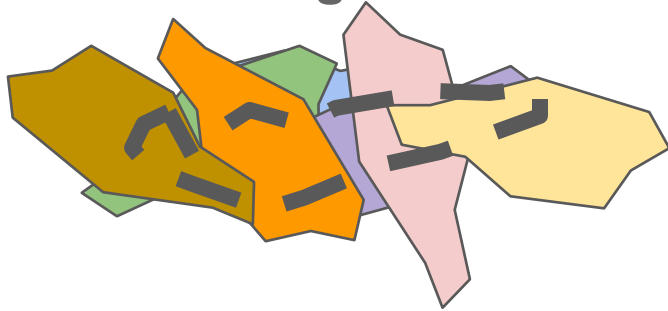
Brook trout and  
anadromous fish



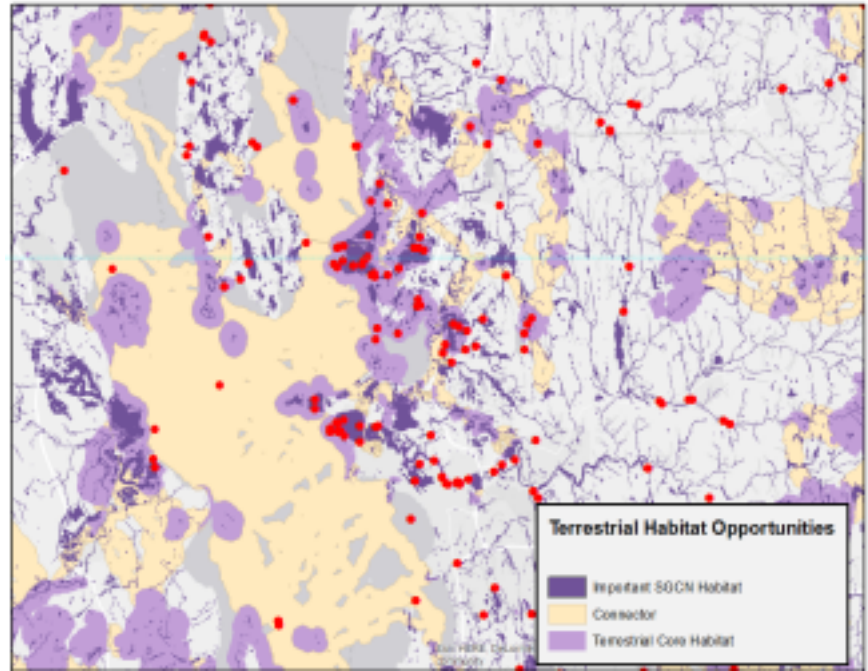
# Important habitats for SGCN

A clear pattern for biodiversity based on thousands of species

- It is most efficient to find maximum **alignment** of habitats



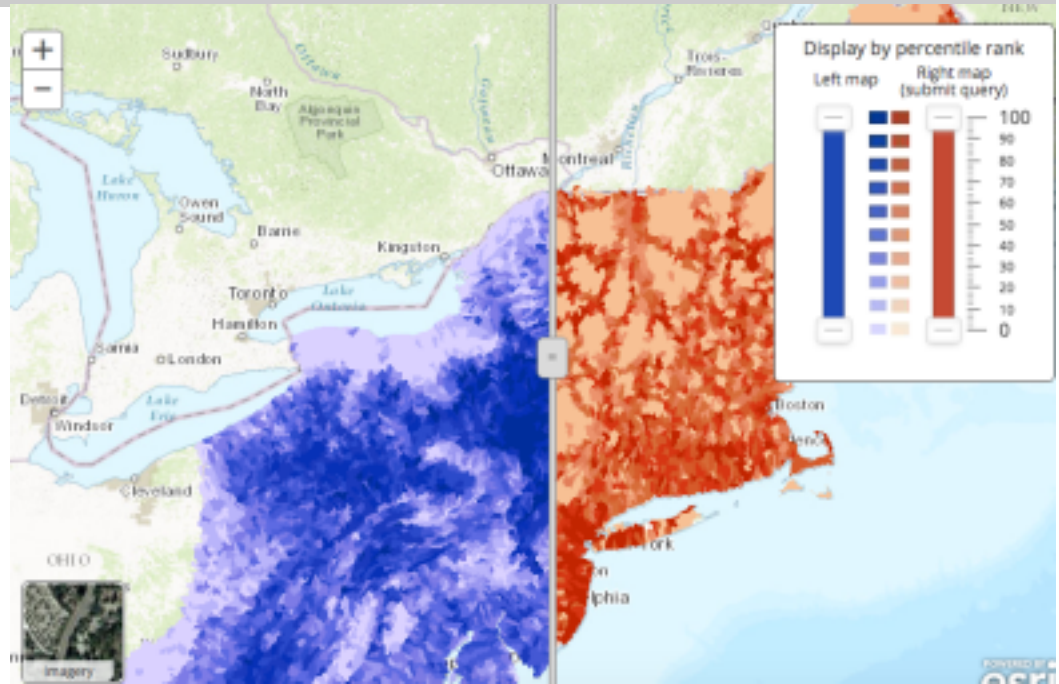
- **Riparian habitats are critical for all plants and animals**



# Interactive Restoration Tool

Tool for interactive conservation planning

- Allows managers to develop custom prioritization scenarios and download their own results





# Regional Conservation Opportunity Areas Version 1.0

One region, 13 states, thousands of opportunities to move conservation forward together

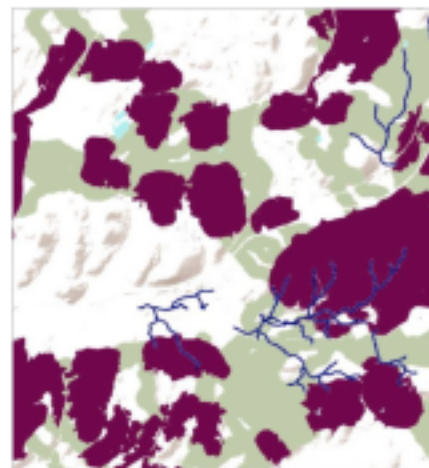
[LEARN MORE](#)[EXPLORE THE MAPS](#)

# Data & Tools

Regional Conservation Opportunity Areas Version 1.0 offers a suite of decision-support tools that are intended to complement information and expertise developed by state agencies, federal programs, and partner organizations. These resources provide regional context to help people working at any scale identify best opportunities for conserving intact terrestrial and aquatic ecosystems, supporting habitat for species, restoring habitats, and connecting natural areas across the Northeast.

Regional Conservation Opportunity Areas Version 1.0 is a dynamic tool that will evolve over time based on updated information. Feedback on this product will be used to improve the next iteration, Version 2.0.

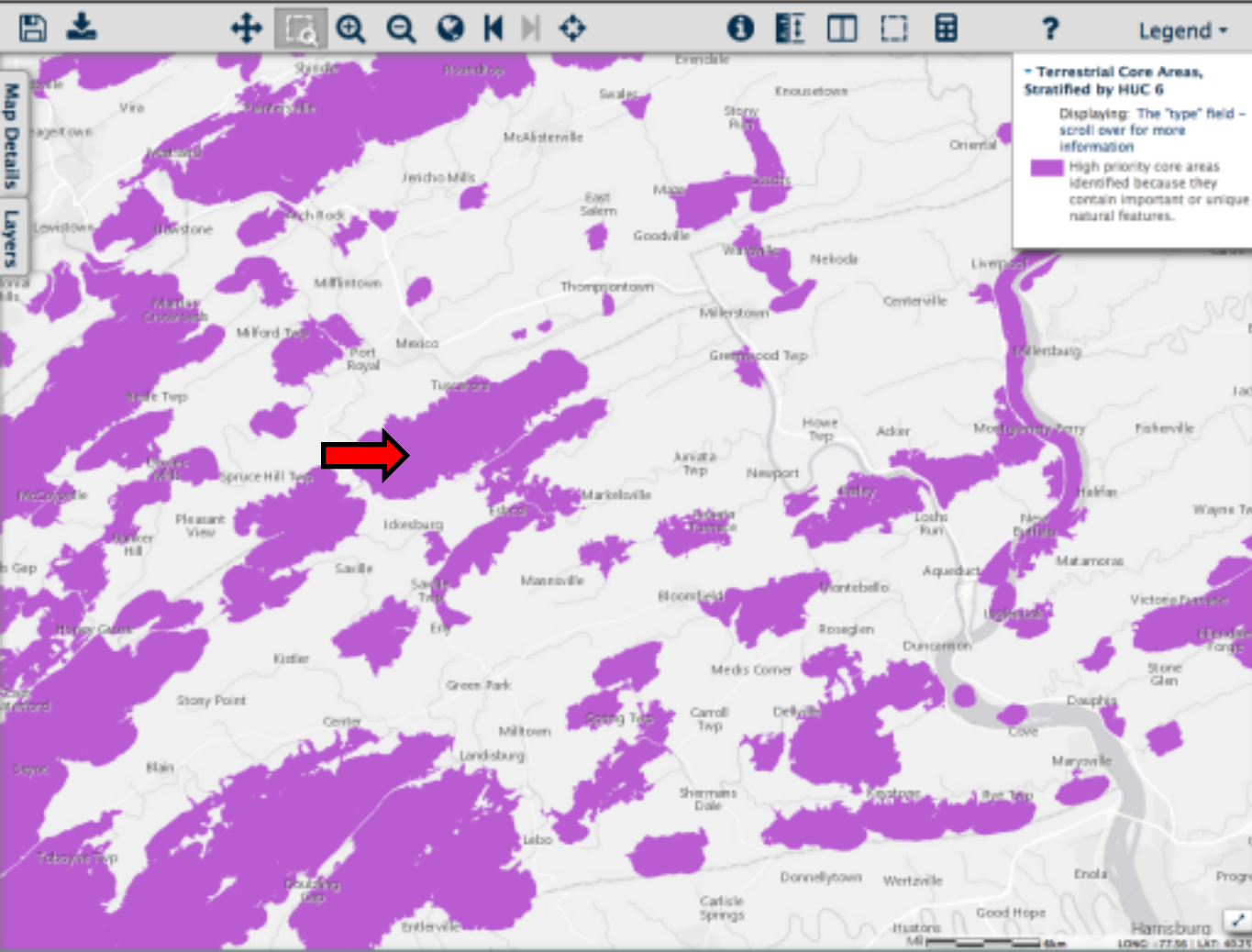
To review the maps, click the button below to visit the Regional Conservation Opportunity Areas Version 1.0 gallery on the North Atlantic LCC's Conservation Planning Atlas (Data Basin), a free mapping platform where you can access all the spatial data.



[Review the maps here](#)

[Access restoration tool](#)





What maps are available?

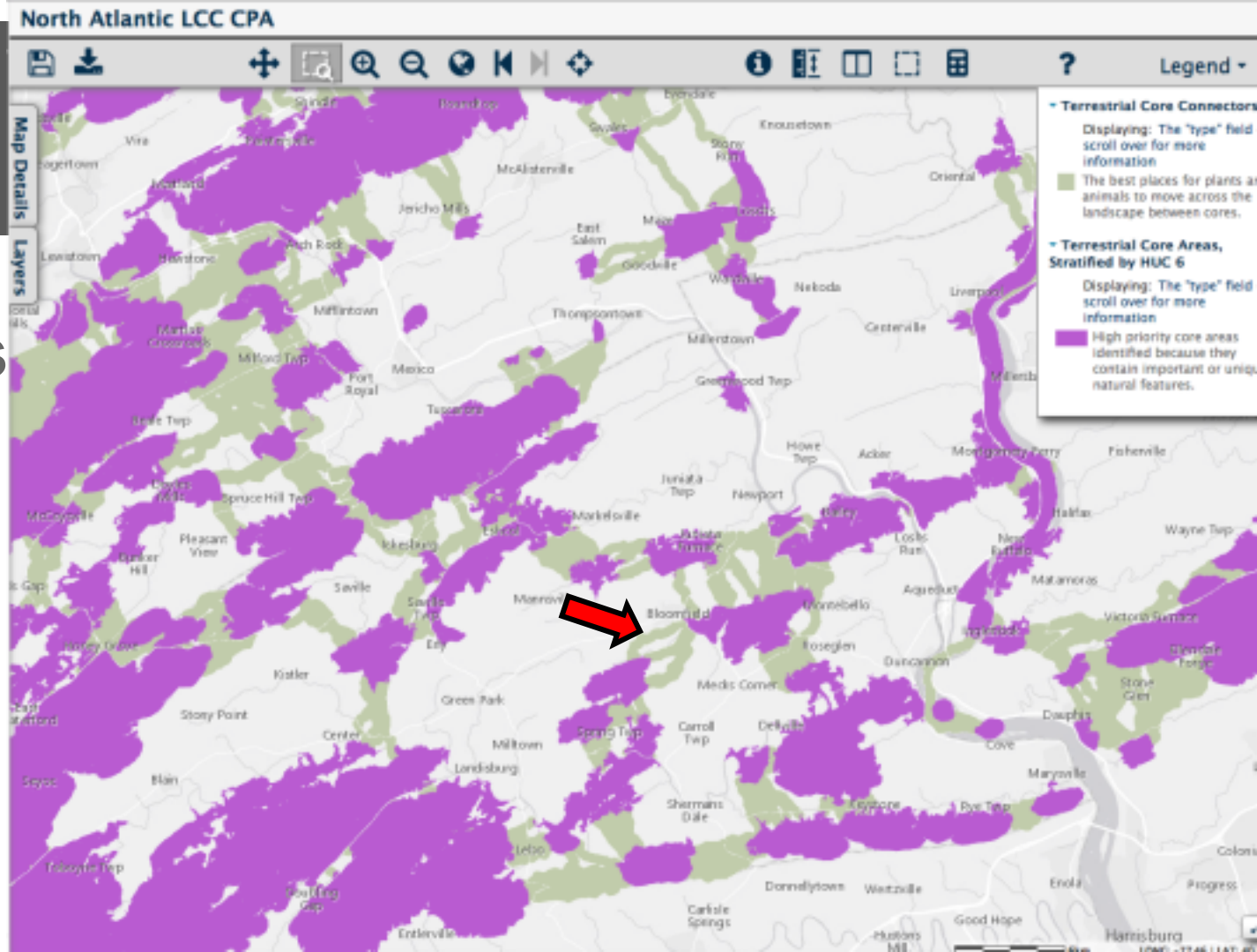
# Core Areas

- bear
- moose
- grouse
- woodcock

What maps are available?

Connectors

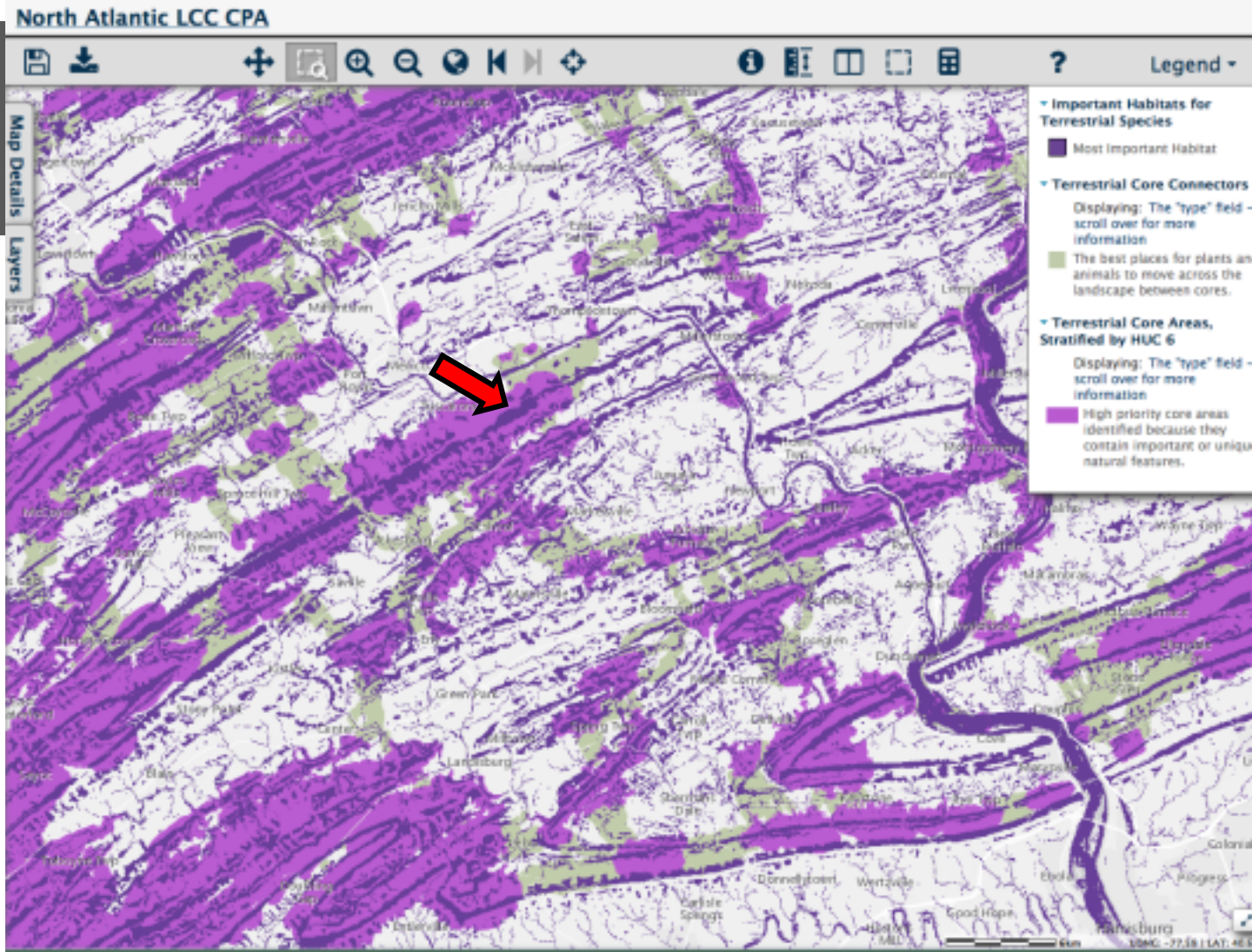
→ All species



# What maps are available?

## Important Habitats

- All species
- riparian
  - SGCN



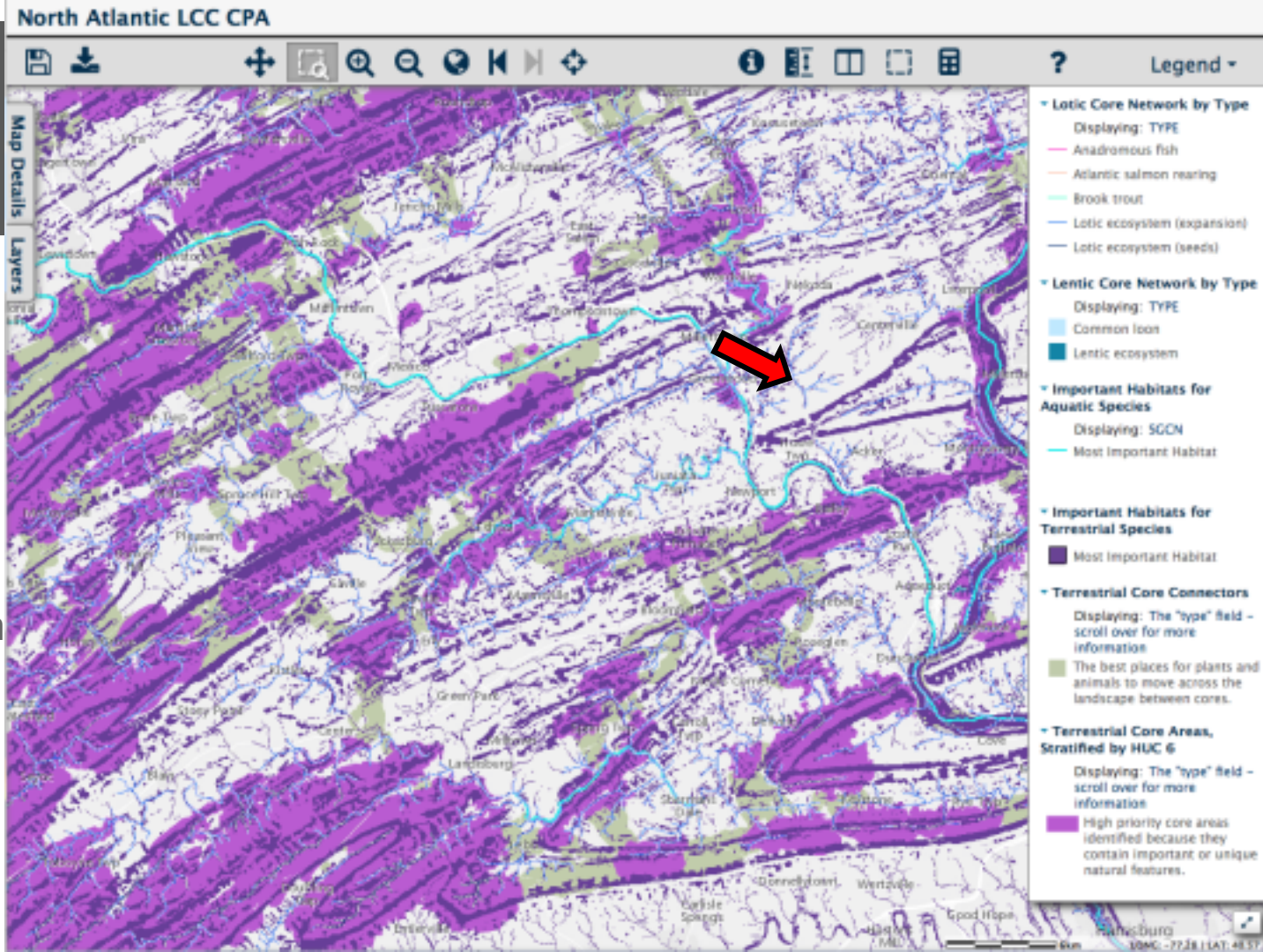




# What maps are available?

## Aquatic Networks

- anadromous fish
- Atlantic salmon
- brook trout



# Demonstration



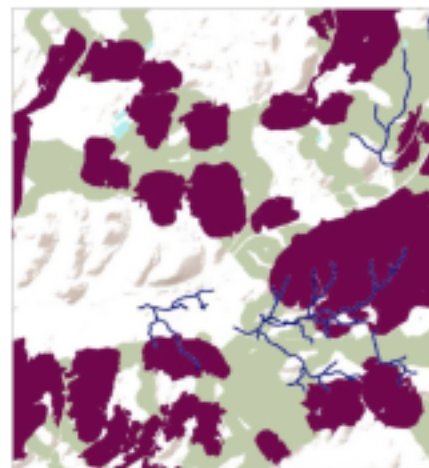


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# Restoration Tool

## Sandbox

Access all available datasets and design your own restoration scenario



Get started

## Early Successional Habitat

Access restoration scenarios developed by experts



American woodcock: forest management

American woodcock: riparian restoration

American black duck: demo

## Aquatic Habitat

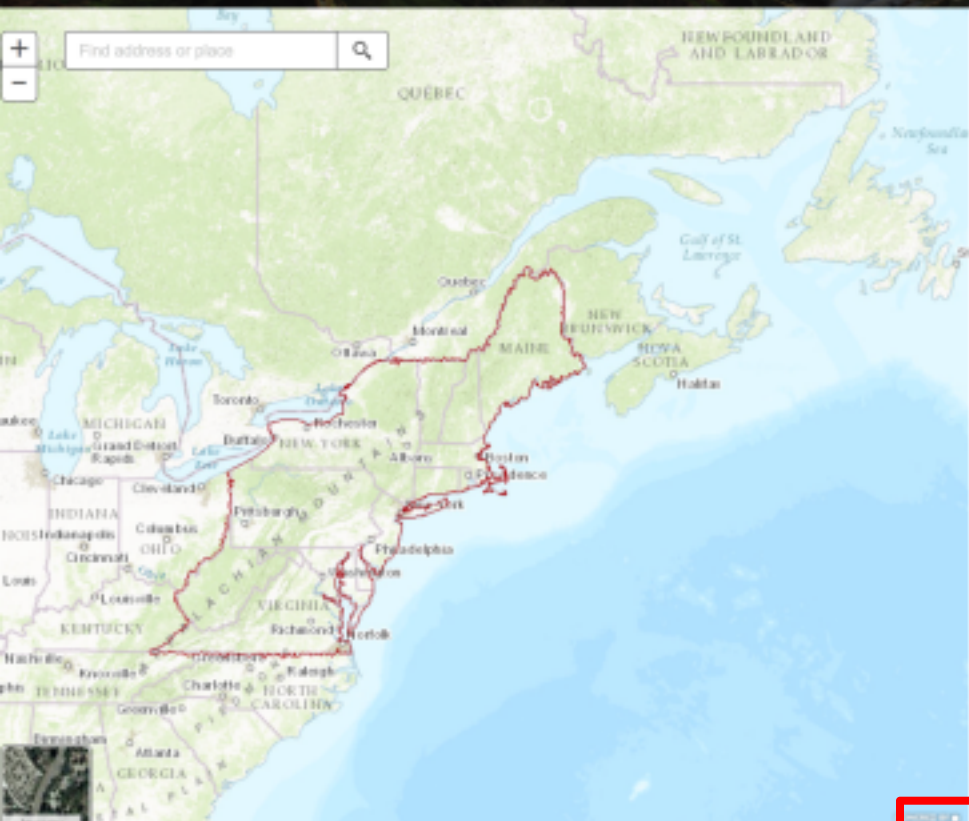
Access restoration scenarios developed by experts



Road-stream crossings

Expert scenarios can be uploaded.





Sandbox

Parameters

**1. Select planning unit and geography** Visualization

Entire northeast

**2. Select metrics**

4 items selected

Close this menu after selecting metric(s)

Deselect All

- IEI of initial condition (estuarine wetlands)
- IEI of 1-3 foot migration
- IEI of 3-6 foot migration

**UMASS DSL-FOCAL SPECIES**

- Species American black duck breeding
- Species American black duck nonbreeding
- Species American woodcock
- Species Black bear
- Species Brown-headed nuthatch
- Species Birkbeak thrush



1. Select a target species or habitat.

The screenshot shows the 'Restoration Tool' interface. On the left is a map of the Northeast United States and parts of Canada, with a search bar at the top left. On the right is a sidebar with a 'Sandbox' header and a 'Parameters' section. The 'Parameters' section has two main steps: '1. Select planning unit and geography' and '2. Select metrics'. Under step 2, a dropdown menu is open, showing a list of metrics. The 'Forest Loss' metric is selected and has a checkmark. A red arrow points from a red dot at the bottom of the page to the 'Forest Loss' checkmark.

Find address or place

NEW FOUNDLAND AND LABRADOR

QUEBEC

NEW BRUNSWICK

MAINE

NEW YORK

VERMONT

CONNECTICUT

MASSACHUSETTS

Rhode Island

NEW JERSEY

PENNSYLVANIA

DELAWARE

MARYLAND

VIRGINIA

NORTH CAROLINA

SOUTH CAROLINA

MISSISSIPPI

ALABAMA

LOUISIANA

MISSOURI

KENTUCKY

TENNESSEE

INDIANA

OHIO

MICHIGAN

ILLINOIS

WISCONSIN

MINNESOTA

NEBRASKA

KANSAS

OKLAHOMA

TEXAS

ARIZONA

NEW MEXICO

UTAH

WYOMING

NEVADA

IDAHO

OREGON

CALIFORNIA

WASHINGTON

OREGON

WASHINGTON

ALASKA

HAWAII

Forest Loss

species wood thrush

American woodcock abundance

HANSEN ET AL.

Forest Cover

Forest Gain

Forest Loss

NRCS CONSERVATION PRACTICES (HUC12 ONLY)

Aquatic Conservation Practices Total

Aquatic Conservation Practices 2000 and earlier

New forest condition metrics identify and age early successional habitat.

2. Select important forest metrics for prioritizing work.