



# Background and Progress of the North Atlantic Landscape Conservation Cooperative *Setting the Stage for Conservation Design and Delivery in the Northeast Region*

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February 24, 2014



North Atlantic  Landscape Conservation Cooperative

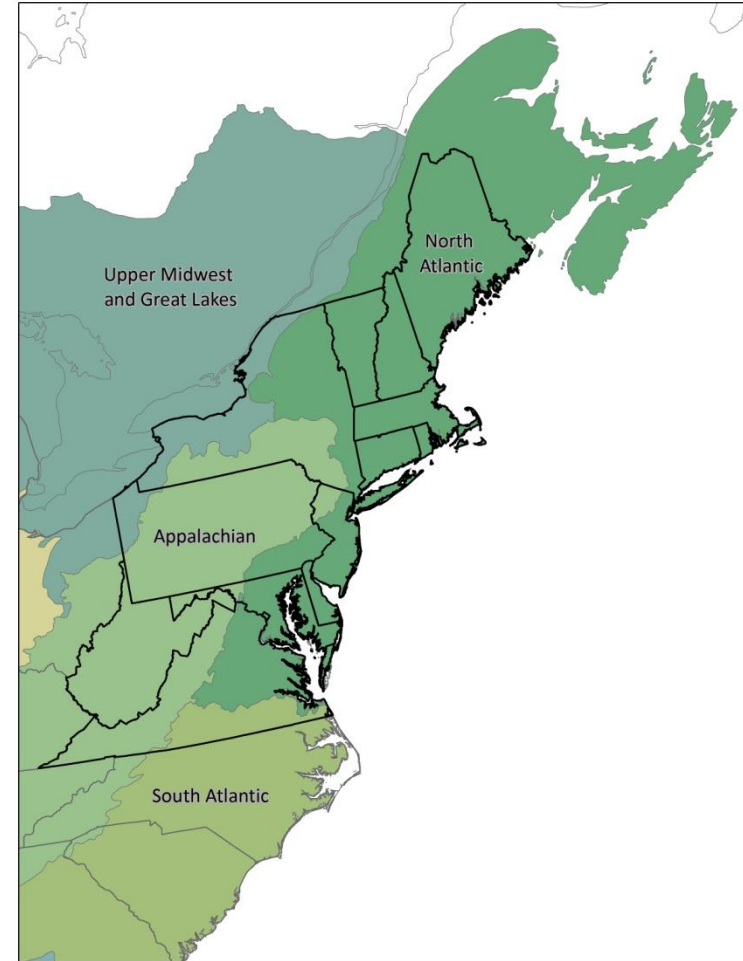


# North Atlantic LCC

## Mission:

provides a partnership in which the conservation community works together to address increasing land use pressures and widespread resource threats and uncertainties amplified by a rapidly changing climate

by jointly developing and delivering scientific information and tools needed to prioritize and guide more effective conservation actions towards common goals







# LCC Science Projects

- Over 20 completed or ongoing science projects providing foundational data, assessments and decision support for terrestrial, aquatic and coastal systems
- <http://www.northatlanticlcc.org/projects>

**North Atlantic Landscape Conservation Cooperative**

Search Site  Search  
 only in current section

Home The Cooperative Resources **Projects** Work Spaces LCC Network News Calendar Members Help

Companion Sites  **LOG IN**

You are here: Home > Projects

**Projects**

This area describes conservation science projects sponsored by the North Atlantic LCC, and other regional partners, that contribute regional-scale scientific information to aid decision makers who are working to sustain natural and cultural resources, including fish and wildlife populations.

Each year, the North Atlantic LCC invests in conservation science projects to help the LCC partnership define, design, and deliver sustainable landscapes in the face of major regional conservation threats, including climate change and habitat loss. Projects are selected in a collaborative process that involves input from partners on the highest priority science needs that should be addressed. Requests for Proposals to address science needs will be prominently announced on the LCC website and elsewhere (most recently in July 2012).

**Search Projects**

Type in keywords or refine your search using the categories below

**Focused Project Search**

**ECOSYSTEM TYPES**

- Land
- Freshwater
- Coastal
- Wetlands

**CONSERVATION TARGETS**

- Amphibians and reptiles
- Birds
- Fish
- Invertebrates
- Mammals
- Plants
- Ecosystems

**FEATURED PROJECTS**

**Revisions to the Northeastern Aquatic Habitat Classification**

This project will update the 2008 Northeastern Aquatic Habitat Classification (NAHCS) prepared by The Nature Conservancy and the Northeast Association of Fish and Wildlife Agencies (NEAFWA). The updates will add a tidal component to the classification of streams and rivers and a mapped classification of lakes.

1 2 3 4 5

**Search Results**

Sort by:  Alphabetical  Most recent  Oldest first  NALCC-funded

**Application of the Coastal and Marine Ecological Classification Standards (CMECS) to the Northeast**

This project will utilize the national Coastal and Marine Ecological Classification Standard (CMECS) to classify estuarine and marine environments in the northwest Atlantic region (Maine to Virginia).

Completion Date  
December 2013

**Climate Change Vulnerability Index for Northeast species**

NatureServe and State Heritage Programs collaborators have developed a Climate Change Vulnerability Index (CCVI) to provide a rapid, scientifically defensible assessment of species' vulnerability to climate change. This project will apply the CCVI

Completion Date  
June 30, 2013

# Northeast Conservation Framework

Albany  
II



**GOAL-SETTING**  
*Which species/habitats to conserve?  
At what levels?  
Who decides?*

**CONSERVATION DESIGN**  
*What should landscapes look like  
to conserve species at goal levels*

**BIOLOGICAL ASSESSMENT**  
*What do we know about the  
status of priority wildlife?*

**INFORMATION  
MANAGEMENT**  
*How will we manage the  
demand for and creation  
of data?*

**SCIENCE TRANSLATION**  
*How do we make science  
solutions useful?*

**PRIORITIES**  
*Which species and  
issues demand  
immediate attention?*

**CONSERVATION ADOPTION**  
*How do we get communities and  
landowners engaged in  
conservation?*

**MONITORING, EVALUATION AND  
RESEARCH**  
*What new information will we  
gather to support  
conservation?*

**CONSERVATION DELIVERY**  
*How will we most efficiently put  
conservation on the ground?*

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# Foundational Needs Mapping Example: Northeast Terrestrial Habitat Map

## Other Foundational Mapping

- Regional Aquatic Habitat Map
- NWI Updates
- Coastal and Marine Classification & Map
- Compilation of Regional Vernal Pool Data
- Culvert/Road Stream Crossings Data



# Vulnerability Assessments Example: Species Vulnerability to Climate Change

## Other Vulnerability Assessments:

- Regional Habitat Vulnerabilities to Climate Change
- Piping Plover-Beaches Vulnerability to Sea Level Rise & Increased Storms
- Brook Trout-Cold Water Streams Vulnerability to Changing Flow and Temperature

# Conservation Design Example: *Designing Sustainable Landscapes*

## Other Conservation Design

- Decision Support Tool to Assess Aquatic Habitats and Threats
- Forecasting Changes in Aquatic Systems and Resilience of Brook Trout
- Priority Amphibian and Reptile Conservation Areas (PARCAs)
- Aquatic Connectivity and Flood Resilience



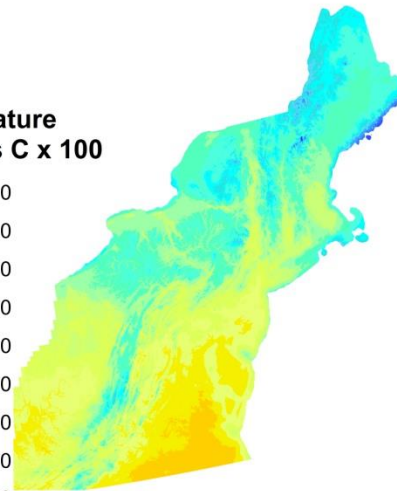
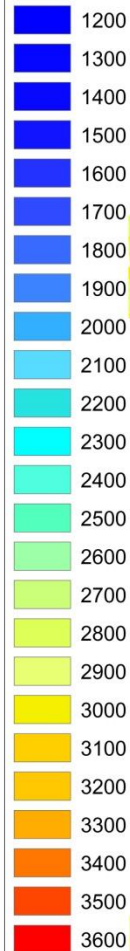
# Consistent data layers

- As a result of LCC, RCN and other regional conservation science projects There are now > 50 regionally consistent, scalable spatial data layers available

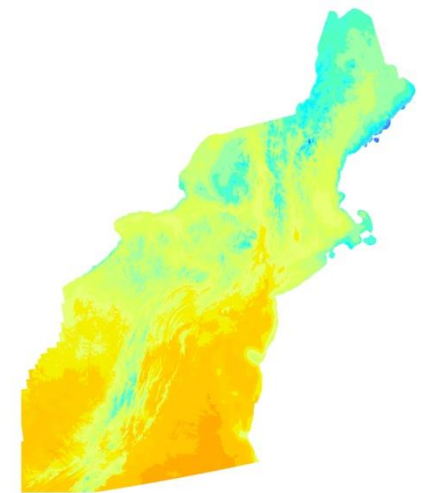
## Downscaled climate projections of maximum summer temperature

Prepared by UMass Amherst as part of the Designing Sustainable Landscapes project

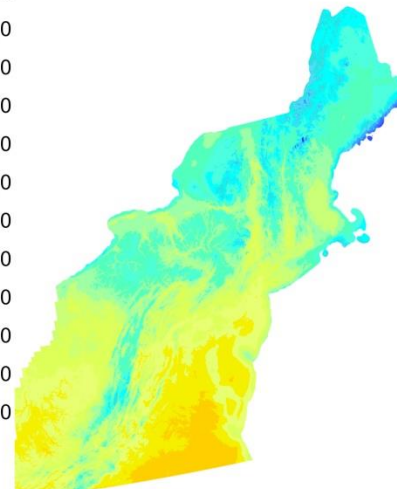
Temperature  
Degrees C x 100



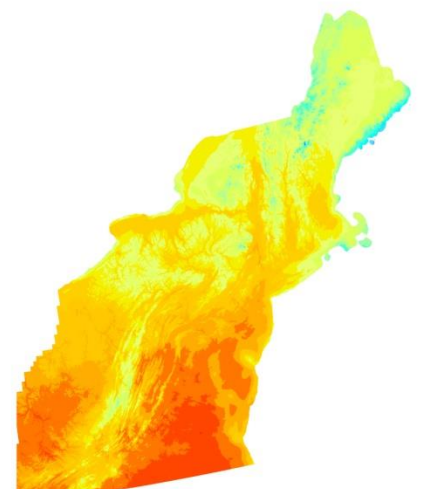
\*Projected for 2010, RCP4.5



\*Projected for 2080, RCP4.5



\*Projected for 2010, RCP8.5



\*Projected for 2080, RCP8.5

RCPs are Representative Concentration Pathways of greenhouse gas concentration. Levels 4.5 and 8.5, respectively represent lower and higher levels of concentration, as within the IPCC 5th Assessment Report

### North Atlantic Landscape Conservation Cooperative Conservation Planning Atlas

Search North Atlantic LCC CPA

search by geography

powered by DATA BASIN

Get Started

Browse

Create

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What is the North Atlantic LCC Conservation Planning Atlas (CPA)?

What is the North Atlantic LCC?

What can I do?

How do I start exploring?

The North Atlantic LCC Conservation Planning Atlas is a platform for easy access to high-quality geospatial datasets, maps and information to facilitate partner-driven conservation.

[Learn more](#)



Get started quickly with the North Atlantic LCC Conservation Planning Atlas

[Take a Tour](#)

#### North Atlantic LCC Galleries...

Terrestrial



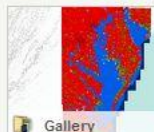
Aquatic



Coastal and Marine



#### Recommended Items



Gallery  
Chesapeake Bay region sea-level rise modelling



Dataset  
USGS National Land Cover Database (2006, 2001, 1992)

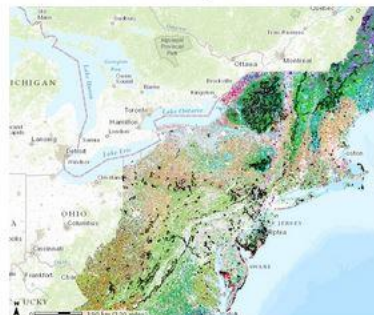


Map  
Northeast Terrestrial Habitat and Secured Lands Map



Dataset  
Northeast Secured Lands 2011 Gap Status 1 and 2 only

#### Northeast Terrestrial Habitat and Secured Lands Map



This is a pilot map for the North Atlantic LCC to begin using DataBasin.

erative



# Synthesis of Regional Information for State Wildlife Action Plan Updates

www.northatlanticlcc.org/resources/swap

## NORTHEAST REGIONAL Wildlife Action Plan Synthesis

Search Site  Search  
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SWAP Synthesis Data Companion Sites  Renee Vieira Farnsworth Preferences Site Setup My Profile LOG OUT

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### Northeast Regional Wildlife Action Plan Synthesis

by webeditor — last modified Jan 27, 2014 06:03 PM — History

**Welcome to the secure Northeast Regional Wildlife Action Plan Synthesis site for conservation partners!**

The North Atlantic LCC is maintaining this site as a resource for all things related to the regional Wildlife Action Plan Synthesis effort, including documents, data and discussions from partner meetings. Please contact us if you need assistance with accessing any of the available information.

There are currently no criteria on which to search. Please add them using the 'criteria' tab.



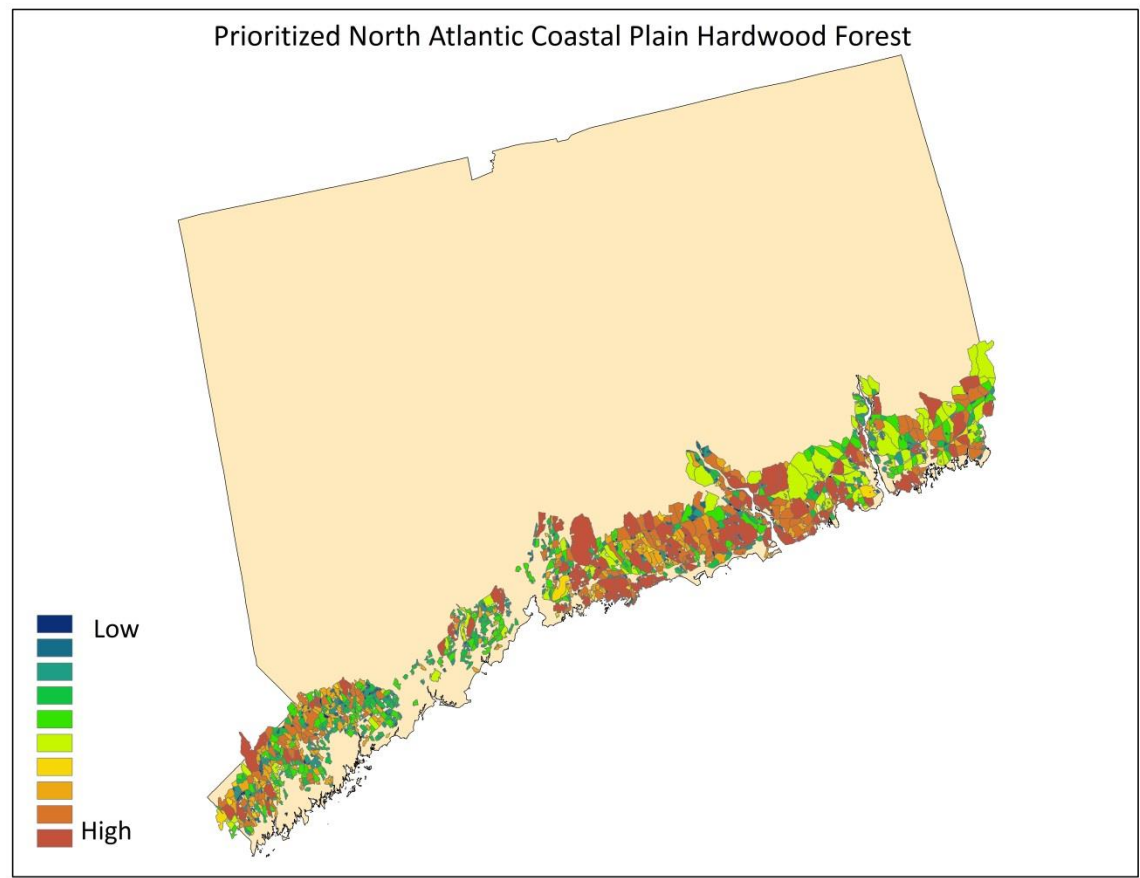
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# Query Tool for SWAPs

- Example of a simple tool for using these regional data sets
  - species richness,
  - securement,
  - patch area
  - connectivity



# Science Delivery

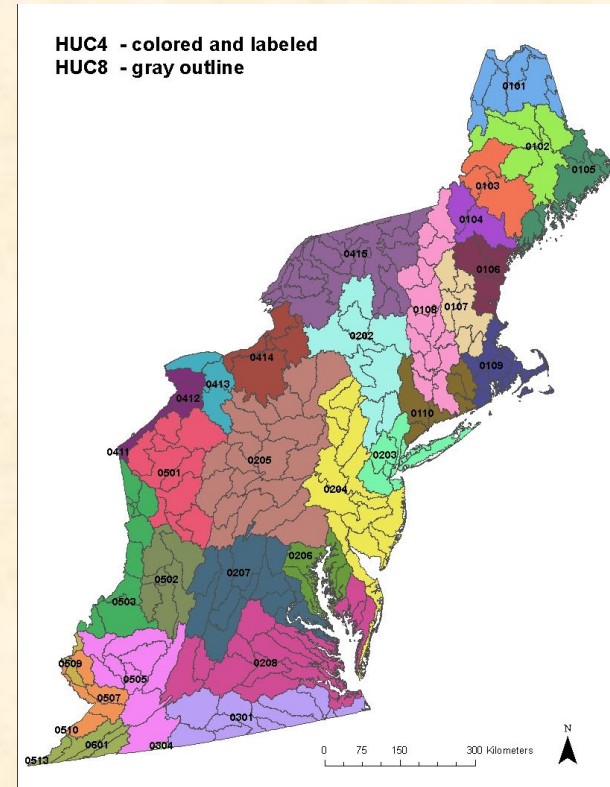
- LCC is supporting a program of Science Delivery
  - Technical assistance
  - Delivery networks
  - Partner support grants and demonstration Projects (*RFP proposals due March 7, 2014*)
  - Information management systems





# Science Delivery Scales

- Facilitating the application of best available science at scales needed to support decisions being made at those scales
  - Regional, landscape, state, local
- Integrating results and priorities across scales
  - Regional context for state actions



# Science Delivery Approaches

- Providing information and tools in various formats to support conservation decisions
  - Easy access to and visualization of regionally consistent spatial data
  - Simple tools for partners to weight factors and inform decisions
  - Facilitated collaborative process and products for integrating and applying information towards common goals in landscapes
    - Connecticut River Landscape Conservation Design Pilot



# Summary: Where LCC is

- LCC has developed the partnership and capacity to achieve its mission
- LCC and partners have supported projects consistent with the northeast conservation framework
- Projects are at the stage where information and tools are available
- Information is being made available through information management systems
- Helping partners access and use information and tools through Science Delivery

# Where LCC is Going

- Continued strategic investments in science development
- Delivering science at scales and in formats needed
- Putting the information and tools together for effectively prioritizing decisions including:

## Landscape Conservation Design

- How much of what conservation actions are needed where to sustain natural and cultural resources across the region and landscapes within the region?
- Collaborative process for agreeing on goals and developing common landscape conservation designs (conservation blueprints) to achieve those goals.