**North Atlantic Landscape Conservation Cooperative**

**Draft Product Users Guide**

**October, 2014**

Northeast Region Foundational Data Layers and Maps - North Atlantic Conservation Planning Atlas (<http://nalcc.databasin.org/>)

**Description**: Regionally consistent, scalable, spatial data at a 30-meter cell resolution available for the entire 13-state Northeast Region, or relevant part of region. Over 100 spatial data layers are available on various biotic and abiotic variables. Some data layers now available for marine zone as well. Two Countries, one Forest Data includes adjacent parts of Atlantic Canada and Quebec. Examples of regional consistent data include: Northeast Aquatic Classification and Map, Northeast Terrestrial Habitat Map (across Northeast U.S. and being expanded to Canada), Hydrography at 1:24,000, Updated National Wetlands Inventory, Coastal and Marine Ecological Classification.

*Compiled, organized and documented by North Atlantic LCC. Developed by LCC, NEAFWA RCN, The Nature Conservancy, University of Massachusetts Amherst, and other partners and contractors*

**Uses**: developing regional maps, conducting regional assessments, providing regional context for landscape, state and local activities

**Access**: <http://nalcc.databasin.org/>

Spatial Data Layers and Maps of Priority Resources

**Description**: Spatial data, maps and assessments of priority resources for Northeast Region or relevant geography developed in part through North Atlantic LCC. Examples include: Marine Bird Mapping and Risk Assessment, Compilation of Regional Vernal Pool Data, Important Migratory Landbird Stopover Sites. Other maps of priority resources developed by regional partnerships such as the Atlantic Coast Joint Venture, NEAFWA and Eastern Brook Trout Joint Venture have been compiled.

*Marine Bird Mapping and Risk Assessment completed by North Carolina State University and partners, Compilation of Regional Vernal Pool Data by Vermont Center for Ecostudies and partners, Important Migratory Landbird Stopover Sites under development by University of Delaware and partners for North Atlantic LCC, U.S. Fish and Wildlife Service and others.*

**Uses**: identifying priority areas for conservation and management planning and actions

**Access**: <http://nalcc.databasin.org/> for spatial data. North Atlantic LCC Website projects webpages (<http://northatlanticlcc.org/projects>) for reports.

Northeast Climate Database (<http://neclimateus.org/>)

**Description**: Searchable online database that provides a gateway to climate information for the Eastern U.S., Atlantic Canada and the maritime region known as the Northwest Atlantic.

*Compiled by NOAA, North Atlantic LCC, National Wildlife Federation, Environment Canada*

**Uses**: Searching for, becoming aware of and using climate data and reports to inform planning and actions

**Access**: <http://neclimateus.org/>

Regional Vulnerability Assessments

**Description**: Vulnerability Assessment reports for **habitats and species** in the Northeast Region including the following habitat reports

* The Vulnerabilities of Northeastern Fish and Wildlife Habitats to Climate Change
* The Vulnerabilities of Northeastern Fish and Wildlife Habitats to Sea Level Rise
* Climate Change and Riverine Cold Water Fish Habitat in the Northeast
* Northeast Region Habitat Vulnerability Assessment and Climate Change Capacity Building - Progress and Next Steps
* Model Results: Habitat Vulnerability Evaluations for 'The Vulnerabilities of Northeastern Fish and Wildlife Habitats to Climate Change'

*Developed by Manomet Center for Conservation Sciences and National Wildlife Federation for the Northeast Association of Fish and Wildlife Agencies and North Atlantic LCC*

Vulnerability Assessment reports for **species** in the Northeast Region: Application of the Climate Change Vulnerability Index (CCVI) to 64 species in the Northeast Region including Federal Trust species of high responsibility by the NALCC, foundation species for habitats assessed for climate change vulnerability, and Species of Greatest Conservation Need (SGCN). CCVI provides a rapid, scientifically defensible assessment of species’ vulnerability to climate change integrating information about exposure to altered climates and species-specific sensitivity factors known to be associated with vulnerability to climate change.

*Developed by NatureServe for the North Atlantic LCC and Northeast Association of Fish and Wildlife Agencies*

**Uses:** habitat and species vulnerability assessments provide information for regional adaptation planning and regional context for regional and state planning including State Wildlife Action Plans.

Access: North Atlantic LCC Website projects webpages (<http://northatlanticlcc.org/projects>) ([Habitat vulnerability reports](http://northatlanticlcc.org/projects/vulnerabilities-climate-change-northeast-fish-wildlife-habitats/vulnerabilities-to-climate-change-of-northeast-fish-and-wildlife-habitats-phase-ii)) ([Species vulnerability reports](http://northatlanticlcc.org/projects/completing-northeast-regional-vulnerability-assessment-incorporating-the-natureserve-climate-change-vulnerability-index/completing-northeast-regional-vulnerability-assessment-incorporating-the-natureserve-climate-change-vulnerability-index)).

Conservation Design Tools

**Description:** Tools and maps that identify how much of what conservation actions are needed where to sustain natural and cultural resources under current and predicted future conditions. In the North Atlantic LCC, a number of conservation design efforts are underway.

The most comprehensive is the **Designing Sustainable Landscapes** project that is assessing the relative habitat and climate suitability for a set of 30 representative species and the integrity of ecological systems across the Northeast Region under current and projected future conditions and using these assessments to develop collaborative conservation designs. A pilot effort is underway in the Connecticut River Watershed. (*UMass Amherst, Northeast Climate Science Center*) ([LCC Product Webpage](http://northatlanticlcc.org/projects/designing-sustainable-landscapes-phase-2/designing-sustainable-landscapes-phase-2)) ([UMass project webpage](http://www.umass.edu/landeco/research/dsl/documents/dsl_documents.html))([Connecticut River Pilot](http://northatlanticlcc.org/groups/connecticut-river-watershed-pilot))([Spatial Data Gallery](http://nalcc.databasin.org/galleries/dc2f56fa047144f0a9659c3709e022f2#expand=43916%2C43917))

Other more specific conservation design tools include:

[Aquatic and Coastal Decision Support Tool](http://northatlanticlcc.org/projects/downstream-strategies-project/decision-support-tool-to-assess-aquatic-habitats-and-threats-in-north-atlantic-watersheds): Aquatic and coastal species models and decision support tools (*Downstream Strategies*)

[Aquatic Connectivity and Flood Resilience](http://northatlanticlcc.org/projects/aquatic-connectivity/restoring-aquatic-connectivity-and-increasing-flood-resilience): Comprehensive road-streams crossings database; recommended field survey protocols; prioritization to improve fish passage and reduce flood risks; additional surveys (*UMass Amherst, USFWS, The Nature Conservancy, Trout Unlimited, Northeast States*)

[Forecasting Streams and Brook Trout](http://northatlanticlcc.org/projects/forecasting-changes-in-aquatic-systems-and-resilience-of-aquatic-populations-in-the-nalcc-decision-support-tools-for-conservation/forecasting-changes-in-aquatic-systems-and-resilience-of-aquatic-populations-in-the-nalcc-decision-support-tools-for-conservation): Aquatic data and brook trout, stream temperature and flow forecasts and decision support tools (*USGS, Northeast Climate Science Center*)

[Priority Amphibian and Reptile Conservation Areas (PARCAs)](http://northatlanticlcc.org/projects/assessing-priority-amphibian-reptile-conservation-areas-parcas-and-vulnerability-to-climate-change-in-the-north-atlantic-landscape-conservation-cooperative-lcc/assessing-priority-amphibian-reptile-conservation-areas-parcas-and-vulnerability-to-climate-change-in-the-north-atlantic-landscape-conservation-cooperative-lcc): Species models for 60+ priority herp. species; report with priority areas identified (*AFWA, UMaine, Clemson, Maine DIFW*)

[Marine Bird Mapping and Risk Assessment](http://northatlanticlcc.org/projects/mapping-the-distribution-abundance-and-risk-assessment-of-marine-birds-in-the-northwest-atlantic-ocean/mapping-the-distribution-abundance-and-risk-assessment-of-marine-birds-in-the-northwest-atlantic-ocean): Mapping of annual and seasonal abundance of 24 marine bird species to inform marine planning across Northwest Atlantic (*NC State, NOAA, BRI, CSI/CUNY*)

[Piping Plovers and Sea-level Rise](http://northatlanticlcc.org/projects/forecast-effects-of-accelerating-sea-level-rise-on-the-habitat-of-atlantic-coast-piping-plovers-and-identify-responsive-conservation-strategies/forecast-effects-of-accelerating-sea-level-rise-on-the-habitat-of-atlantic-coast-piping-plovers-and-identify-responsive-conservation-strategies): Assessment of threats to Piping Plover from sea level rise and recommendations for habitat management (*Virginia Tech, USGS*)

[Increasing Resiliency of Beach Habitats and Species in the Face of Storms & Sea Level Rise](http://northatlanticlcc.org/projects/beach-resiliency/increasing-resiliency-of-beach-habitats-and-species/): Regional decision support models for coastal beach management and restoration for beach habitats and species in the face of storms and SLR; evaluation of the effectiveness of beach restoration and management (*USFWS, USGS, FWS, Virginia Tech, Rutgers, Conserve Wildlife NJ, TCI, NROC, MARCO*)

[Increasing Resiliency of Tidal Marsh Habitats and Species in the Face of Storms & Sea Level Rise](http://northatlanticlcc.org/projects/tidal-marsh-resiliency/increasing-resiliency-of-tidal-marsh-habitats-and-species): Regional decision support models for tidal marsh restoration and management for marsh habitats and species in the face of storms and SLR; evaluation of the effectiveness of different marsh restoration approaches for increasing resiliency (USFWS, USGS, SHARP (UDel, UMaine, UConn, SUNY), UMass, *NROC, MARCO)*

[Decision Support Tools for Sea-level Rise Impacts](http://northatlanticlcc.org/projects/a-research-and-decision-support-framework-to-evaluate-sea-level-rise-impacts-for-the-u.s.-atlantic-coast/a-research-and-decision-support-framework-to-evaluate-sea-level-rise-impacts-for-the-u.s.-atlantic-coast): geospatial data on sea level rise and response of coastal systems (Northeast Climate Science Center, USGS).

**Uses:** Conservation design maps and tools prioritize what conservation actions are needed where for specific actions such as where to restore aquatic connectivity for fish in the face of climate change or more generally for a partnership to agree on a network of priority conservation areas to meet the goals of the partnership.

**Access:** Any available maps and spatial data are available on through the Conservation Planning Atlas site (<http://nalcc.databasin.org/>). Specific project pages (<http://northatlanticlcc.org/projects>) are linked to above. As specific online tools are developed, their links will be added here and on the project pages.