

Handout 5b – North Atlantic LCC Steering Committee Meeting, Oct. 2014

Status of North Atlantic LCC Projects

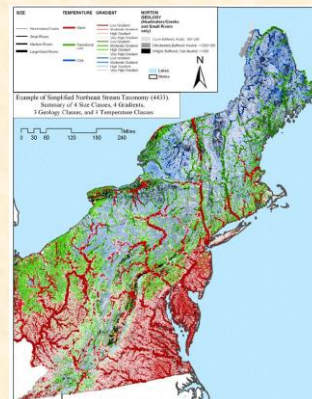
Part I: Projects in Progress

North Atlantic  Landscape Conservation Cooperative



Foundational Mapping: Northeast Aquatic Classification

North Atlantic LCC Role	NEAFWA Project; support TNC revisions to streams (tidal component) and lakes
Products	Classification of Northeast streams and lakes
Available Now	Stream classification including new tidal component + guide
Available within 3-6 months	Enhanced lake classification including lake depth
Longer Term	

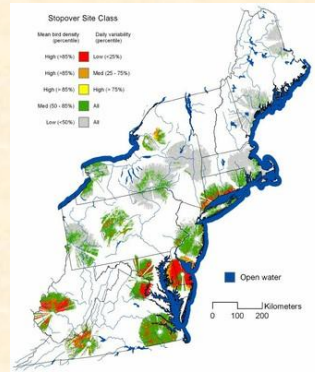


North Atlantic  Landscape Conservation Cooperative



Foundational Mapping: Important Migratory Landbird Stopover Sites

North Atlantic LCC Role	Co-sponsoring with USFWS, MD, USGS, U. of DE (lead), VCU, TNC, NASA
Products	Improved models of important fall migration stopover sites, based on weather radar and field surveys
Available Now	6 years of analyzed radar data; initial field survey results
Available within 3-6 months	
Longer Term	Complete report and maps (June 2015)



North Atlantic Landscape Conservation Cooperative

Foundational Mapping: Compilation of Regional Vernal Pool Data

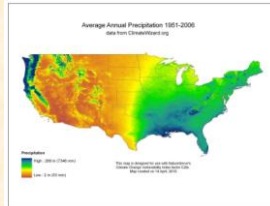
North Atlantic LCC Role	Sponsoring project by Vermont Center for Ecostudies and UVM (initiated Jan. 2014)
Products	Regional GIS dataset of locations of potential or documented vernal pools
Available Now	Unified database structure
Available within 3-6 months	Remote sensing demonstrations
Longer Term	Complete report and dataset on NALCC Conservation Planning Atlas (2015)



North Atlantic Landscape Conservation Cooperative

Vulnerability Assessments: Species Vulnerability to Climate Change

North Atlantic LCC Role	Supporting assessment by NatureServe using Climate Change Vulnerability Index (CCVI)
Products	Report on vulnerability of 64 high regional concern, representative, and foundational species
Available Now	Draft report
Available within 3-6 months	Final report
Longer Term	



North Atlantic Landscape Conservation Cooperative



Conservation Design: Piping Plovers and Sea-level Rise

North Atlantic LCC Role	Sponsoring project by Virginia Tech
Products	Assessment of threats to Piping Plover from SLR and recommendations for habitat conservation
Available Now	Published model linking coastal processes and beach habitat
Available within 3-6 months	Final report and tools including project impacts of sea level rise and management
Longer Term	Work is being expanded more widely across North Atlantic

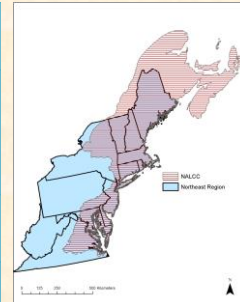


North Atlantic Landscape Conservation Cooperative



Conservation Design: *Designing Sustainable Landscapes*

North Atlantic LCC Role	Sponsoring project led by UMass Amherst
Products	Extensive spatial datasets, current and future species capability and ecological integrity, decision support tool for landscape design
Available Now	Many spatial datasets for entire Northeast
Available within 3-6 months	<ul style="list-style-type: none"> • Additional regional spatial data • Regional models for 30 rep. species • Pilot design effort in CT River watershed
Longer Term	Phase 3 (to be initiated in Fall 2014) will enhance coastal components and use of tools by partners



North Atlantic  Landscape Conservation Cooperative

Conservation Design: *Aquatic Connectivity and Flood Resilience*

North Atlantic LCC Role	Sponsoring 2 related projects (one funded through Hurricane Sandy) led by UMass Amherst, USFWS, TNC, USGS, USFS, Trout Unlimited, DOT/FHA (initiated January 2014)
Products	Comprehensive road-streams crossings database; recommended field survey protocols; prioritization to improve fish passage and reduce flood risks; additional surveys
Available Now	
Available within 3-6 months	Initial survey protocols for first field season
Longer Term	Complete datasets and reports (2016)



North Atlantic  Landscape Conservation Cooperative

Conservation Design: Aquatic and Coastal Decision Support Tool

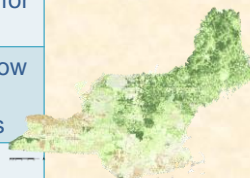
North Atlantic LCC Role	Sponsoring project with Atlantic Coastal Fish Habitat Partnership, led by Downstream Strategies
Products	Aquatic and coastal species models and decision support tools
Available Now	Pilot models and for brook trout in the Chesapeake Bay watershed and for winter flounder
Available within 3-6 months	Final brook trout and winter flounder models
Longer Term	Multi-species decision support tools for restoration and conservation available on-line (2015)



North Atlantic Landscape Conservation Cooperative

Conservation Design: Forecasting Streams and Brook Trout

North Atlantic LCC Role	Sponsoring project led by USGS
Products	Aquatic data and brook trout, forecasts and decision support tools
Available Now	<ul style="list-style-type: none"> • Prototype web tool for stream conditions and climate change • Brook trout occupancy model for New York to Maine
Available within 3-6 months	<ul style="list-style-type: none"> • Projections of future stream flow and temperature • Regional brook trout forecasts
Longer Term	Incorporate into conservation design; integrate with other brook trout tools (2015)

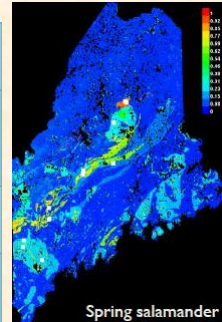


Brook trout probability of occupancy

North Atlantic Landscape Conservation Cooperative

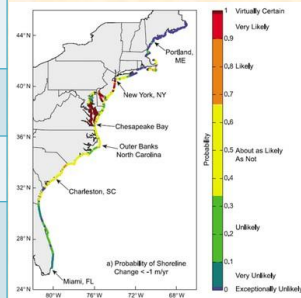
Conservation Design: Priority Amphibian and Reptile Conservation Areas (PARCAs)

North Atlantic LCC Role	Sponsoring project led by State of Maine, U. of Maine, and Clemson
Products	Species models for 60+ priority herp. species; report with priority areas identified
Available Now	Climate niche models for 61 species
Available within 3-6 months	<ul style="list-style-type: none"> Projected loss of climate envelope for species C.C. Vulnerability reviews Pilot PARCAs for Maine
Longer Term	Full PARCA report and recommendations (2015)



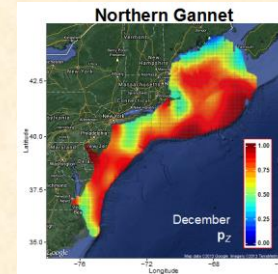
Conservation Design: Decision Support Tools for Sea-level Rise Impacts

North Atlantic LCC Role	NE Climate Science Center project to USGS; LCC facilitated model development through structured decision making
Products	Geospatial data on SLR, decision support models
Available Now	
Available within 3-6 months	Initial regional decision model
Longer Term	Reports, tools, and recommendations; next steps through Hurricane Sandy projects



Conservation Design: Marine Bird Mapping and Risk Assessment

North Atlantic LCC Role	Sponsoring a project by NC State U., NOAA, BRI, CSI/CUNY
Products	Mapping of annual and seasonal abundance of 24 marine bird species to inform marine planning across Northwest Atlantic
Available Now	Marine bird species maps and report – in review
Available within 3-6 months	Final report and maps
Longer Term	



North Atlantic Landscape Conservation Cooperative

Conservation Design: Increasing Resiliency of Beach Habitats and Species in the Face of Storms & Sea Level Rise

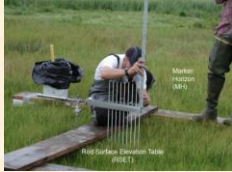
North Atlantic LCC Role	Coordinating overall project among P.I.s, LCC and CSC partners and with P.I.s USGS, FWS, Virginia Tech, Rutgers, TCI
Products	Regional decision support models for coastal beach management and restoration for beach habitats and species in the face of storms and SLR; evaluation of the effectiveness of beach restoration and management
Available Now	
Available within 3-6 months	Pre-hurricane survey results of inlets and beaches
Longer Term	Complete models and results delivered to partners (2016)



North Atlantic Landscape Conservation Cooperative

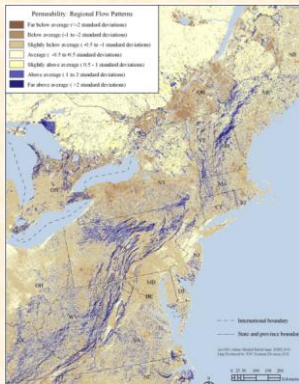
Conservation Design: Increasing Resiliency of Tidal Marsh Habitats and Species in the Face of Storms & Sea Level Rise

North Atlantic LCC Role	Coordinating overall project among P.I.s, LCC and CSC partners and P.I.s FWS, USGS, SHARP, UMass
Products	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
Available Now	
Available within 3-6 months	Consistent monitoring metrics; initial assessments of tidal marsh integrity
Longer Term	Complete models and results delivered to partners (2016)



Conservation Design: Permeable Landscapes for Wildlife

North Atlantic LCC Role	Sponsoring project by TNC
Products	Report and dataset on relative permeability (connectivity) of landscape for wildlife, accounting for climate change
Available Now	
Available within 3-6 months	Initial datasets and results
Longer Term	Final report and data (2015)



Status of North Atlantic LCC Projects

Part II: Completed Projects

North Atlantic  Landscape Conservation Cooperative

Foundational Mapping: Coastal and Marine Ecological Classification

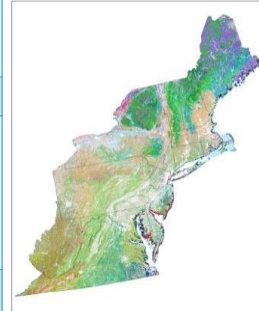
North Atlantic LCC Role	Sponsoring project by TNC, Mass. DFG, and U. of RI
Products	Report and maps testing the classification at 3 spatial scales
Available Now	Final maps and report
Available within 3-6 months	
Longer Term	Future phases could include full mapping of North Atlantic with NROC and MARCO



North Atlantic  Landscape Conservation Cooperative

Foundational Mapping: Northeast Terrestrial Habitat Map

North Atlantic LCC Role	Support revising NEAFWA-sponsored project by TNC and UMass
Products	Classified terrestrial habitat map
Available Now	Virginia revisions (2012) March 2014: UMass enhancements to reflect roads, streams, 2006 development, and revised coastal NWI
Available within 3-6 months	
Longer Term	Expansion to Canadian portion of LCC (2015)



North Atlantic  Landscape Conservation Cooperative

Foundational Mapping: Coastal Update to National Wetlands Inventory

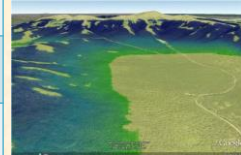
North Atlantic LCC Role	Sponsoring update to NWI for coastal areas
Products	Updated wetland mapping in 162 coastal areas in 7 states
Available Now	Project is complete (Sept. 2013); incorporated into Northeast Terrestrial Habitat map by UMass



North Atlantic  Landscape Conservation Cooperative

Conservation Design: Terrestrial Wildlife Habitat Models

North Atlantic LCC Role	Sponsored project by University of Vermont
Products	Habitat capability models for four representative wildlife species
Available Now	Project completed in 2011; models have been incorporated into Designing Sustainable Landscapes project
Available within 3-6 months	
Longer Term	Through Designing Sustainable Landscapes project, spatial datasets are being developed for current and project future conditions for entire Northeast



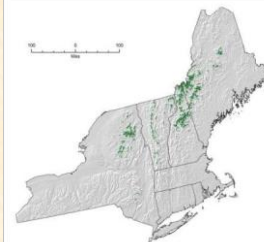
Blackpoll Warbler habitat map



North Atlantic  Landscape Conservation Cooperative

Vulnerability Assessments: Habitat Vulnerability to Climate Change

North Atlantic LCC Role	Completing NEAFWA-sponsored project by Manomet/NWF
Products	3 reports: terrestrial/wetland; cold water; and coastal habitats
Available Now	Reports completed; northeast climate database (neclimateus.org) developed in collaboration with NOAA and other partners



North Atlantic  Landscape Conservation Cooperative