

Taking Action Together *Northeast Regional Synthesis for State Wildlife Action Plans*

Summary

Wildlife moves continuously across state boundaries. Ecosystems and habitats stretch across borders as if they didn't exist. Weather events, pollution, disease, and climate change all transcend the limits of political jurisdiction. Cross-border, regional approaches to wildlife conservation and planning are still relatively new; but they are necessary.

Collaboration among states to achieve shared conservation goals is the way of the future, and for that reason, *Taking Action Together: The Northeast Regional Synthesis for State Wildlife Action Plans* is a major achievement. Its regional focus does not ignore or supersede the responsibilities of individual states. Rather, it aims to help states do the work of conservation more effectively, at home; and then to help them reach beyond their own boundaries, to pursue collaborative approaches and joint solutions to the challenges of wildlife conservation in the 21st century.

The Northeast Fish and Wildlife Diversity Technical Committee (NEFWDTC) and its partner organizations, public and private, offer the *Northeast Regional Synthesis* as a work in progress, an early result of our long-term commitment to regional collaboration and successful conservation of wildlife species and the lands and waters that sustain them.

This document represents a landmark regional collaboration in the history of wildlife conservation in the United States. It is also designed as a practical tool that will help guide state fish and wildlife agencies and their conservation partners in setting priorities and making on-the-ground conservation decisions that affect the future of wildlife and the habitats that support wildlife in the Northeast. It is both a success story and a strategic step forward for state and regional wildlife conservation in the Northeast.

The origins of the *Northeast Regional Synthesis* extend as far back as the 1980s. Decades before Congress required every state to adopt a State Wildlife Action Plan (SWAP), state fish and wildlife agencies in the Northeast—specifically the NEFWDTC of the Northeast Association of Fish and Wildlife Administrators (NEAFWA)—worked together to identify regional priorities, including a list of Regional Species of Greatest Conservation Need (RSGCN).

This RSGCN list served as an early guide for wildlife conservation efforts in the region. It was also visionary in explicitly recognizing that wildlife, the habitats that sustain wildlife species, and the threats to wildlife are not confined within state boundaries. Recognition of this fact helped states identify and prioritize those species and habitats that can be most effectively addressed at the multistate scale.

The original SWAPs were drafted in 2005, and by federal mandate were required to be revised at least once every ten years. In 2006, having just finished work on the first round

of SWAPs, representatives of state fish and wildlife agencies met in Albany, New York. They identified six regional priority needs for wildlife conservation and created a Regional Conservation Needs (RCN) Grant Program in response. It was an unprecedented collaborative step. The fish and wildlife agencies in thirteen Northeast states (from Maine to Virginia) and the District of Columbia each agreed to contribute 4% of their federal appropriation every year to support the RCN Grant Program, which would approach conservation needs and priorities from a regional perspective.

By joining forces in this way, the Northeast states created a model program, one that provides for more efficient and effective use of limited resources, including scarce conservation dollars. RCN grants support cutting-edge research and conservation; draw on the best available scientific expertise; leverage funds through a matching requirement; and take a landscape-scale approach to needs and priorities identified in the SWAPs.

The six priority areas identified in 2006 focused on: 1) developing a regional Geographic Information System (GIS) platform for assessing critically important habitat types; 2) identifying and responding to the threats posed by invasive species; 3) achieving sustainable populations of species of greatest conservation need (SGCN); 4) adopting stream flow/management and water quality standards to protect aquatic life; 5) creating guidelines and tools to support local planning; and 6) developing regional indicators to measure success in wildlife conservation.

The *Northeast Regional Synthesis* summarizes and provides links to information on the more than fifty individual projects funded through the RCN Grant Program since 2007. Ten years of funding through the RCN Grant Program has kept a close focus on these priorities, and especially on creating new tools and resources that the individual states can apply, both in conservation planning decisions and in the SWAP revision process. RCN grants have also supported important new research on urgent conservation challenges: on the causes of White Nose Syndrome in bats, Rana virus in reptiles, and the effects of climate change and invasive species on wildlife and habitats throughout the region. The RCN grants served as seed money, creating a ripple effect with multiple spin-off supplemental projects and partner involvement across the region. The New England cottontail project is a powerful example of the effectiveness and ability of states to engage in conservation on the ground to proactively preempt federal listing.

As the Northeast states were about to begin work on the first ten-year SWAP revisions, fish and wildlife agencies convened again in Albany in 2011. The group included thirteen state agencies (NEAFWA and NEFWDTA), six federal agencies, and representatives from twelve non-profit organizations and universities. Their goal was to develop a regional conservation framework to address the priorities and needs identified.

As in the first Albany conference, the emphasis was on creating a regional perspective and a set of common tools that would support work at the state level. There was a strong focus on developing tools for conservation design and information management; monitoring and evaluation; and especially on adopting a regional lexicon, a common vocabulary that would allow states to communicate and share information more

effectively while also lending greater clarity and efficiency to regional conservation efforts.

The importance of this regional lexicon can hardly be overstated, and the usefulness of the *Northeast Regional Synthesis* is due in large part to the fact that the states have agreed upon and are now using a common language in their conservation work. The lexicon calls for the use of many of the strategically designed RCN projects to provide these common terms and systems. One key example is the collaboration between The Nature Conservancy, NEFWDTC, and North Atlantic Landscape Conservation Cooperative to develop the Northeast habitat classification systems for both terrestrial and aquatic habitats and produce a seamless overlay for the Northeast region. Similarly, the lexicon calls for the use of standard classification systems to categorize and describe threats (International Union for the Conservation of Nature) and actions (Wildlife TRACS [Tracking and Reporting Actions for the Conservation of Species]). This allows for more meaningful assessment and analysis at the regional scale.

Overall, the Northeast is the most densely populated and intensively developed region of the country. Large tracts of wild or minimally developed land still remain in parts of the region, but fragmentation of habitat and loss of the “connectivity” that supports many SGCN is widespread. It is a pervasive and growing problem that all individual state wildlife agencies and their partners must address. It is also one that demands the kind of regional thinking and regional responses the *Northeast Regional Synthesis* is designed to support.

The same is true of the challenges posed by invasive species and climate change, which affect SGCN and their habitats from the coastlines and estuaries to inland waterways and from lowland areas to the region’s highest mountain peaks. The effects of climate change are discussed throughout the *Northeast Regional Synthesis*, and many of the projects funded through the RCN Grant Program and cited in the document were undertaken in response to this region-wide threat. The intent is to help the state agencies responsible for wildlife conservation and their partners better understand and respond to climate change through the SWAP revision process.

The *Regional Synthesis* was developed with seven primary objectives.

- 1) To provide a regional context for addressing the priorities identified in the 2015 SWAPs, reaching across multiple jurisdictions in response to regional needs. This includes management of waterways, invasive species control, and habitat connectivity among others.
- 2) To encourage collaborative, regional approaches that achieve significant economies of scale.
- 3) To highlight what defines the Northeast region in terms of its ecological uniqueness and the wildlife species it supports.

- 4) To organize and compile existing state-specific information into a single resource that enables multi-jurisdictional strategies and approaches.
- 5) To establish consistency based on standard terminology, taxonomies, habitat classifications, and categories for threats, stressors, and actions.
- 6) To foster improved communication across jurisdictions and among regionally focused agencies and programs.
- 7) To assist with the adoption of conservation measures, policies, and plans.

Congress has mandated that all SWAPs address the same eight elements: Species, Habitats, Threats, Actions, Monitoring, Review, Coordination, and Public Participation. The *Northeast Regional Synthesis* follows this organizational structure, with an emphasis on elements 1-6. The following is a chapter-by-chapter summary of the information this document contains.

Chapter 1: Species

Using lists developed by the states through the SWAP revision process, the NEFWDC has identified 366 fish and wildlife species as being of greatest conservation need, region-wide (RSGCN). The compiled list of all Northeast SWAP SGCN included 87 mammals, 263 birds, 65 reptiles, 73 amphibians, 299 fish, 27 tiger beetles, and 101 freshwater mussel species and subspecies. These numbers represent a significant percentage of Northeast region species in all of these taxonomic groups. The large number of species included in these lists reflects the magnitude of the threats facing fish and wildlife species in the Northeast, as well as the commendable efforts of the individual Northeast states to ensure that their SWAPs were comprehensive in their coverage of species in major taxonomic groups.

Chapter 1 describes in detail the work of the NEFWDC and includes information on representative RSGCN and case studies of RCN grant-funded projects focusing on individual species, groups or guilds of species (e.g., Marine Birds). It also considers broader issues such as identifying migratory landbird stopover sites in the Northeast and assessing priority amphibian and reptile conservation areas in light of climate change. Several key RCN grant-funded projects were developed and highlighted as examples of proactive conservation that was designed for states to preempt the need for federal listing of such species as the New England cottontail and the Blanding's and wood turtles.

Chapter 2: Habitat

This chapter describes the most important habitats for RSGCN, as identified by the SWAPs and through RCN grant-funded projects. It highlights the regional habitat classification systems and maps that were developed for the region. Case studies and project summaries provide information and direct links to the results of RCN-funded research. Not surprisingly, connectivity issues and fragmentation of habitat are an

important focus. The history, current status, and projected changes in key habitats of the Northeast are also discussed, including forests, wetlands, lakes, ponds, rivers, and streams.

Building upon the habitat classification systems, RCN grant-funded projects such as the Regional Conservation Assessment and Geospatial Condition Analysis describe the status and condition of important Northeast habitats through the use of these standardized, region-wide mapping data and a GIS tool to evaluate the condition of habitats in terms of land secured for conservation, connectedness, the local context (degree of human conversion nearby), landscape “permeability” (allowing for the passage of animals), and predicted development.

This chapter also explores a range of topics and resources such as the integrity of ecological systems, terrestrial and aquatic habitat maps, Northeast habitat classification systems, and resilient sites for species conservation, among many others. RCN grant-funded research on shrub lands and young forests, tidal marshes, freshwater aquatic systems, coastal marine systems, and habitats and threats in North Atlantic watersheds and estuaries is also summarized.

Chapter 3: Threats

Major threats to SGCN and their habitats in the Northeast include development, invasive species, pollution, human intrusion and disturbance, modification of natural systems, and climate change. This chapter explores the relationship between these pressing threats and the needs and current status of various indicator species. It also addresses more specific threats such as habitat loss and degradation; threats to forests through loss and fragmentation; threats to wetlands, lakes, ponds, streams, and rivers; threats to unique habitats such as summits and cliffs; threats to selected SGCN species; and habitat vulnerability in the face of climate change. A detailed picture of the threats to terrestrial habitats has been developed through the Geospatial Condition Analysis mentioned above.

RCN grant-funded projects to better assess key threats include studies of regional focal areas for SGCN based on site adaptive capacity, network resilience, and connectivity; forecasting the effects of sea-level rise on piping plovers and responsive conservation strategies; threats to aquatic systems in the region; water management and use; wildlife diseases; new energy developments; and many others.

Chapter 4: Conservation Actions

An important focus of the *Northeast Regional Synthesis* is **action**—actions to be taken by the states and their partners to support region-wide conservation and development of tools to guide strategic action steps at all levels. Chapter 4 begins with a ranking of key actions identified in the SWAPs, including land and water protection; addressing gaps in research and existing data; management of individual species; and public education.

Chapter 4 then identifies a range of conservation strategies and actions that have already been developed and implemented for priority species in the Northeast, with funding from the RCN Grant Program. Funding has been strategically targeted through successive years of the RCN Grant Program to accomplish the following objectives:

- ✓ Develop base maps for the Northeast
- ✓ Identify high priority RSGCN
- ✓ Design data collection protocols and collect data
- ✓ Perform GIS data analysis and mapping for RSGCN
- ✓ Design and implement conservation strategies for RSGCN
- ✓ Design and implement monitoring programs for RSGCN
- ✓ Identify and address emerging threats

Case studies presented cover a broad range, from development of climate change habitat and species vulnerability indices, to addressing fish passage and aquatic connectivity, invasive species, and wildlife diseases, to integrated monitoring to inform conservation and species management. Other RCN grant-funded projects summarized in this chapter include development of decision support tools for addressing threats in the Northeast; tools to design sustainable and permeable landscapes; tools to address aquatic habitats and threats in North Atlantic watersheds and estuaries; and the “conservation action guidance” in the Northeast lexicon.

Chapter 5: Monitoring

This chapter focuses on regional efforts to monitor the status and trends of RSGCN and their habitats and to evaluate the effectiveness of conservation actions. It highlights the Monitoring and Performance Reporting Framework developed to help states meet the expectations set by Congress and the U.S. Fish and Wildlife Service (USFWS) for SWAPs and State Wildlife Grants. It provides a list of general conservation targets and indicators at the regional scale.

Building on the success of this Framework, the State Wildlife Effectiveness Measures Project was developed and further combined with the USFWS Wildlife TRACS system to track and report project outputs and effectiveness measures along with the outcomes of projects focused on individual species and habitats. These tools, combined with the Northeast lexicon mentioned earlier and a SWAP database in development that consolidates information from all fourteen individual SWAPs, provide states with greatly enhanced capacity to monitor and evaluate the success of their wildlife conservation actions.

Chapter 6: Regional Coordination, Review, and Priorities

The final chapter offers practical suggestions for how to use the *Northeast Regional Synthesis*, highlighting important collaborative, region-wide projects supported through the RCN Grant Program. It also provides a set of recommendations for the future. These include:

- ✓ Developing a regional threats assessment
- ✓ Maintaining and enhancing the *Northeast Regional Synthesis* as a dynamic, web-based planning tool
- ✓ Continuing to develop a regional landscape conservation design approach and toolkit to support wildlife conservation decisions
- ✓ Collaborating with the Northeast Climate Change Working Group to compile and integrate regional climate change data; and developing a consistent guidance and context for SWAP revisions
- ✓ Working with the Northeast Conservation and Education Association to develop consistent guidance and context for SWAP revisions and implementation
- ✓ Charging the NEFWDC to regularly review and evaluate its projects, products, and the RSGCN list.