Bird Habitat Conservation at Various Scales in the Atlantic Coast Joint Venture[1]

Andrew Milliken,[2] Craig Watson,[3] and Chuck Hayes[4]

Abstract

The Atlantic Coast Joint Venture is a partnership focused on the conservation of habitats for migratory birds within the Atlantic Flyway/Atlantic Coast Region from Maine south to Puerto Rico. In order to be effective in planning and implementing conservation in this large and diverse area, the joint venture must work at multiple spatial scales, from the largest – flyways and Bird Conservation Regions, to the smallest – focus areas and individual projects. In this paper, we describe the activities of the Atlantic Coast Joint Venture at these various scales and discuss the implications and opportunities for all-bird conservation within this large region.

Introduction

The Atlantic Coast Joint Venture (ACJV) is a partnership among the 17 Atlantic Flyway state wildlife agencies, Puerto Rico, federal agencies, non-governmental organizations and others focused on habitat conservation for migratory birds in the Atlantic Flyway of the United States (*fig. 1*). The ACJV was one of the original joint ventures formed under the North American Waterfowl Management Plan and its original focus was on protecting and restoring migration and wintering habitat for American Black Duck (*Anas rubripes*) and other waterfowl species in the Atlantic Coast region of the United States. While the joint venture maintains a strong focus on waterfowl, in recent years its mission has evolved to include the conservation of habitats for all birds consistent with the vision of the North American Bird Conservation Initiative and the major national and North American bird conservation plans (North American Waterfowl Management Plan, Partners in Flight, U.S. Shorebird Conservation Plan and North American Waterbird Conservation Plan). The three principles guiding conservation in the joint venture are: maintaining a strong and diverse partnership, basing conservation actions upon a solid scientific foundation and using a landscape approach to conservation. To be effective in such a large and diverse area, planning and implementation of bird habitat conservation takes place at a variety of scales in the joint venture including flyway, regional, and local scales.

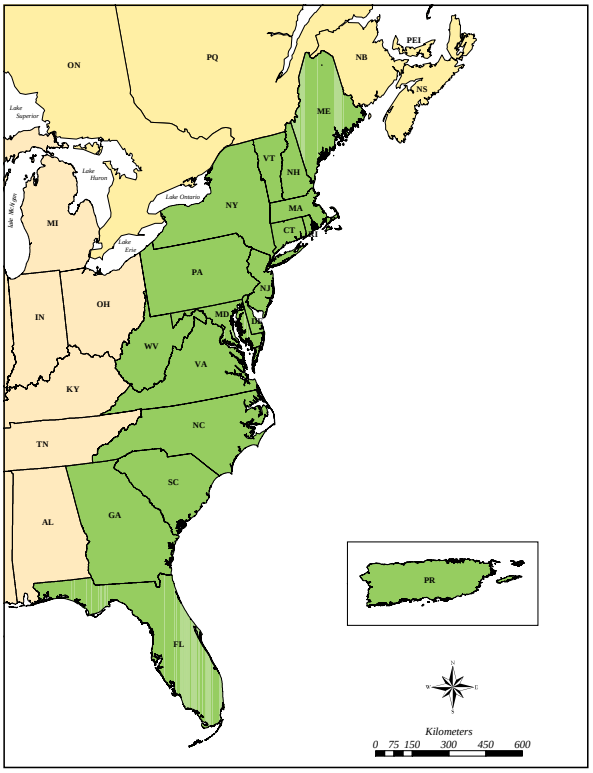

Figure 1— Map of the Atlantic Coast Joint Venture Area. Members of Joint Venture Include Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Puerto Rico, U.S. Fish and Wildlife Service, U.S. Forest Service, National Park Service, National Fish and Wildlife Foundation, Ducks Unlimited, The Nature Conservancy.

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[2]U.S. Fish and Wildlife Service, Atlantic Coast Joint Venture, 300 Westgate Center Drive, Hadley, MA 01035. E-mail: andrew_ milliken@fws.gov.

[3]U.S. Fish and Wildlife Service, 176 Croghan Spur Rd., Suite 200, Charleston, SC 29407.

[4]U. S. Fish and Wildlife Service, Atlantic Coast Joint Venture, P.O. Box 307, Charlestown, RI 02813. Current address: U. S. Fish and Wildlife Service, North Mississippi Refuges Complex, 2776 Sunset Dr., Grenada, MS 38901

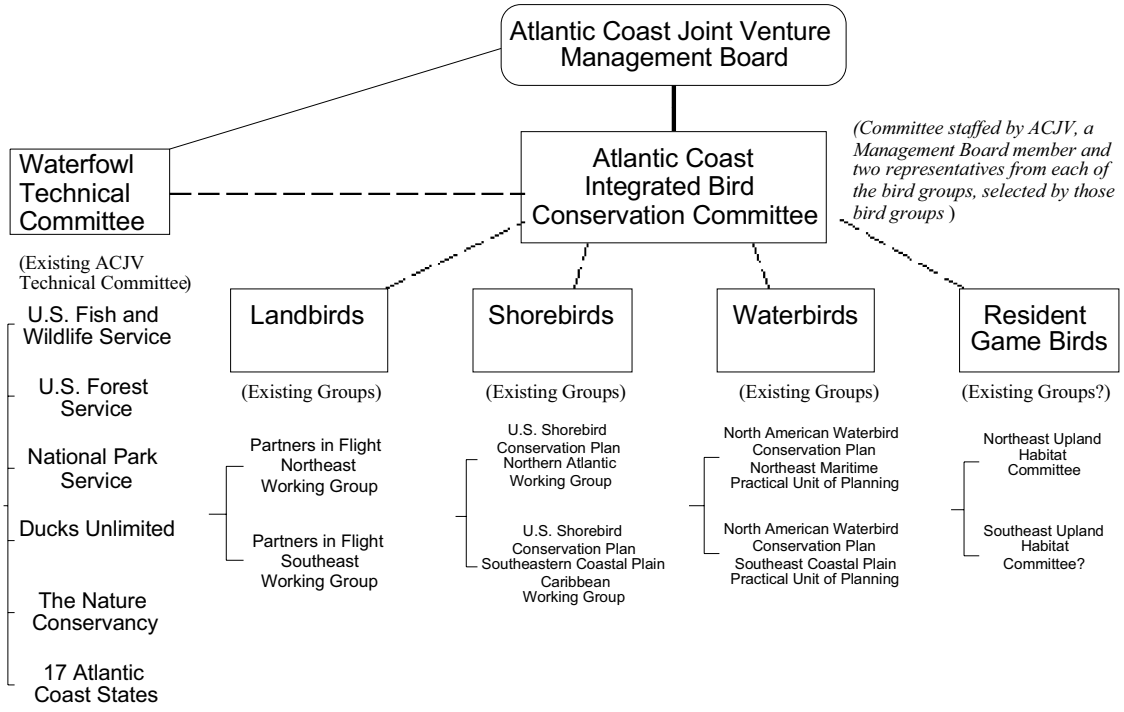

Figure 2— Flow Chart showing the relation ship between the Atlantic Coast Joint Venture Integrated Bird Conservation Committee, Management Board and bird initiative work groups.

Flyway Scale and Coast-Wide Efforts

The Atlantic Coast Joint Venture area includes the entire U.S. portion of the Atlantic Flyway and the entire U.S. Atlantic Coast. In this large area, the joint venture partners have the opportunity to work together to assess the status, trends, and needs of bird populations and habitats and to pool and direct these resources to the greatest needs. Flyways have been used in North America since 1947 as the unit for managing waterfowl in part through Flyway Councils (Jerry Serie, pers. comm.). The flyway concept is useful because it allows land managers to link efforts to conserve migratory bird species and their habitats on breeding, migration, and wintering grounds and to determine the most important limiting factors for these bird species during different stages in their seasonal cycle. The Atlantic Coast Joint Venture Management Board and Waterfowl Technical Committee contain many common members with the Atlantic Flyway Council and Technical Section, respectively, and work cooperatively to manage waterfowl populations and conserve important waterfowl habitat in the Atlantic Flyway.

To coordinate and integrate the many other groups and efforts associated with bird conservation in this large geographic region the joint venture has developed a working group known as the Atlantic Coast Integrated Bird Conservation Committee. This group serves to exchange information among the Northeast and Southeast working groups of Partners in Flight, U.S. Shorebird Conservation Plan, North American Waterbird Conservation Plan, North American Waterfowl Management Plan and various upland game bird initiatives and provides a link between these groups and the joint venture Management Board (*fig. 2*)

By planning at the flyway scale, managers can direct resources to the conservation of specific habitat types and particular geographic regions where these resources will have the most benefit for priority species using the flyway. Basic information on status and trends of habitat types at the flyway scale is helping the joint venture partners guide the prioritization of these resources. For example, the U.S. Fish and Wildlife Service, Adaptive Management and Assessment Team is working with the joint venture to assess the status and trends of wetland habitats in the U.S. portion of the Atlantic Flyway (Koneff et al. 2003). Status and trend information at this scale highlights conservation needs such as loss or conversion of 1.5 million hectares of forested wetlands in the Atlantic Flyway since the 1950s and the especially high rate of loss in the South Atlantic Coastal Plain.

In the near future, joint venture biologists and partners will be developing population models and population-habitat relationships that will allow the partners to better target habitat conservation to the places most likely to benefit populations of priority species. These population-habitat relationships, along with consistent

monitoring of populations, also will allow the partners to measure the success of their habitat efforts on priority populations and to adjust their efforts based on these results. All of this information on habitats and populations will be included in a revised joint venture implementation plan that will include habitat conservation goals, conservation focus areas, and habitat conservation strategies for the joint venture.

Atlantic Coast Joint Venture partners also have a number of efforts underway to cooperatively assess and manage habitats along the entire U.S. Atlantic Coast. One example is an effort to assess and manage the most important habitat types and food sources for shorebirds and waterfowl during the winter and as they move up the coast during spring migration. These assessments can be used to determine where these species concentrate at different times during migration, and to learn how habitats could be better managed to meet these species' needs. Partners are entering and linking together monitoring and management data for shorebirds and waterfowl at key stopover sites up and down the Atlantic Coast through a web-based database system to answer these questions and to allow wetland managers to better assess their role and adjust their water level and habitat management. Another example of a coast-wide monitoring effort is the Atlantic Coast High Priority Shorebird Network, a group of partners identifying priority shorebird species and issues along the Atlantic Coast and seeking funds to complete needed research and monitoring. The initial focus of this group is a better understanding of the status and distribution of breeding and wintering American Oystercatcher (*Haematopus palliatus*) along the Atlantic Coast. By working together, this group has secured funding for a coast-wide wintering survey for oystercatchers, as well as several breeding studies.

Regional Scale Efforts

The Atlantic Coast Joint Venture contains a diversity of habitat types from the boreal forests of Maine to the mangrove swamps and coral reefs of Florida and Puerto Rico. At the regional scale the joint venture is working on integrated planning efforts in the eight Bird Conservation Regions (BCRs) partially or wholly within the Joint Venture (*fig. 3*). These large physiographically-based regions are an appropriate scale and type of region to assess and integrate bird conservation priorities. Because these physiographic regions tend to have similar biotic (e.g. vegetation) and abiotic (e.g. bedrock geology, climate) features, they are particularly useful for assessing conservation priorities for breeding habitats based on these features and determining the importance of a particular region relative to other regions of the continent for species and habitat types (U.S. NABCI Committee 2000). For example, at least 90 percent of the breeding distribution of the rare Bicknell's Thrush (*Catharus bickneii*) occurs in the Atlantic Northern Forest Bird Conservation Region and thus protecting the spruce-fir habitats used by this species is a continental priority for this region.

Within the Atlantic Coast Joint Venture, regional integrated planning and implementation in these bird conservation regions is moving forward through a process of bringing together biologists and land managers in workshops and reaching consensus on priority species and habitats, population and habitat goals, focus areas for conservation, information needs and projects. Examples of these regional integration efforts that have moved forward include the South Atlantic Migratory Bird Initiative (Watson et al. this volume) and the Lower Great Lakes - St. Lawrence Plain Bird Conservation Region (Hayes et al. this volume). This process has resulted in an assessment of priorities that allows the partners to identify, work together and implement priority habitat conservation projects in these regions. These initial assessments can then be refined through habitat analyses and models as appropriate. Implementation happens through partners, including state working groups that have formed as a result of this process.

Bird Conservation Regions are not the only regions being used for regional integrated bird conservation in the Atlantic Coast Region. Other types of regions also are important for planning and implementing habitat conservation in the joint venture, especially in coastal areas where partnerships have formed around major estuaries such as Chesapeake Bay and Delaware Bay. Planning in the watersheds of these estuaries allows managers to set goals for the health of these estuaries, as well as for the fish and wildlife species using them. The Atlantic Coast Joint Venture has a Chesapeake Bay Work Group that exchanges information and works together on wetland conservation projects, seeking funding through the North American Wetlands Conservation Act grant program and the National Coastal Wetlands Conservation Grant Program.

Project/Focus Area Scale

Specific geographic areas that have been identified as important to birds, known as focus areas, have been mapped for waterfowl in the Atlantic Coast Joint Venture and are being mapped in Bird Conservation Regions for other migratory birds. These focus areas are discrete and distinguishable habitats or habitat complexes that are regionally important for one or more priority species during one or more life history stages and are identified within the context of landscape level conservation.

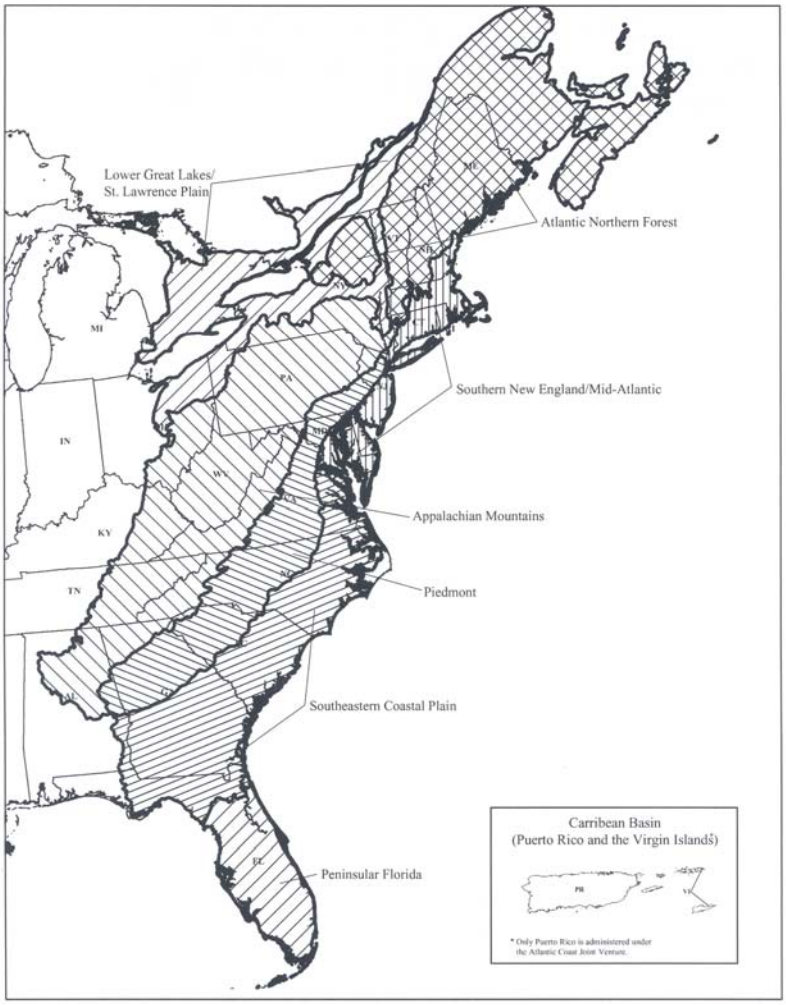

Figure 3— Bird Conservation Regions in the Eastern United States.

Once a particular focus area or project area is identified through regional or flyway scale planning efforts, joint venture partners put together the resources to accomplish habitat conservation projects. An example of a focus-area based effort is the Great Bay Resource Protection Partnership.

The Great Bay Estuary has long been recognized as the foundation for diversity and abundance of wildlife in southern New Hampshire. It was identified as a focus area by the Atlantic Coast Joint Venture in 1988 primarily for wintering waterfowl, but also for its critical role in providing habitat for other migratory birds and as an important fishery. For example, the estuary supports significant population of Saltmarsh Sharp-tailed Sparrow (*Ammodramus caudacutus*), one of the highest priority species identified in regional Partners in Flight plans. Because of the importance of the Great Bay estuary to migratory birds, the Great Bay Resource Protection Partnership was formed in 1994. This partnership is a coalition of public and private entities that have pooled financial and technical resources to help protect critical habitats within and surrounding the estuary.

Conservation efforts of the Partnership are guided by a Habitat Protection Plan that identifies over 14,000 acres of critical habitats within and surrounding the estuary in need of protection from some of the most intense development pressure in the northeastern U.S. The Partnership used field inventory and science-based conservation planning to prioritize protection for the most critical estuarine and upland habitats that are still intact within Great Bay. The identification of these habitats was supplemented with local and regional knowledge from municipalities, local conservationists, and field experts. In addition to identifying land for protection, the Partnership identified strategies needed to achieve their goals. These included conservation education, local land use policies and regulations, state regulations, conservation easement donation and acquisition, fee title donation and acquisition, and restoration and management practices.

The Partnership, spearheaded by a Coordinator, developed into a model for other partnerships centered on focus areas in the Atlantic Coast Joint Venture. Since 1994, the Partnership has been approved for over $3 million in North American Wetlands Conservation Act grants to protect or restore 5,000 acres of wetlands and associated uplands. These grants have been matched by $5.7 million in private partner funds. In addition to the success from the Act funds, the Partnership has received nearly $19 million in federal funding through the Great Bay National Estuarine Research Reserve and the New Hampshire Game and Fish Department. The efforts of the Great Bay Resource Protection Partnership clearly demonstrate that local, active partnerships can make a difference in delivering conservation actions to benefit the diversity and abundance of wildlife in southern New Hampshire and serve as a model for protection of other critical landscapes.

Working at these multiple spatial scales, the partners of the Atlantic Coast Joint Venture have conserved nearly 700,000 acres of priority habitat areas for migratory birds and other wildlife. With the new emphasis on all-bird conservation, these partnerships are poised to implement on-the-ground projects to benefit the highest priority bird species identified by Partners in Flight. We encourage new partners to take advantage of opportunities to include wetland-associated species, such as the marsh-nesting sparrows, Cerulean Warbler (*Dendroica cerulea*), and Golden-winged Warbler (*Vermivora chrysoptera*), in projects aimed primarily at conserving wetlands and associated upland habitats. And we encourage Partners in Flight working groups to use the Integrated Bird Conservation Committee as a means of incorporating land bird priorities into Atlantic Coast Joint Venture plans and projects.

Literature Cited

Hayes, C., A. Milliken, R. Dettmers, K. Loftus, B. Collins, and I. Ringuet. This volume. **Integrated migratory bird planning in the Lower Great Lakes/St. Lawrence Plain Bird Conservation Region**.

Koneff, M. D., and J.A. Royle. 2003. **Modeling wetland change for waterfowl conservation planning along the United States Atlantic Coast**. Unpublished manuscript supplied by the author, U.S.G.S. Patuxent Wildlife Research Center. 12100 Beech Forest Road, Laurel, MD 20708.

U.S. NABCI Committee. 2000. **North American Bird Conservation Initiative: Bringing it all together**. Brochure and map. Available at: http://www.nabci.net/international/english/about.htm.

Watson, C., C. Hayes, J. McCauley, and A. Milliken. This volume. **The South Atlantic Migratory Bird Initiative - An integrated approach to conservation of "all birds across all habitats."**