

# The South Atlantic Migratory Bird Initiative – An Integrated Approach to Conservation of “All Birds Across All Habitats”<sup>1</sup>

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## Abstract

In 1999, the Management Board of the Atlantic Coast Joint Venture (ACJV) embraced the vision and framework of the then newly emerging North American Bird Conservation Initiative (NABCI). Traditionally a Joint Venture focused on the conservation of waterfowl and wetlands habitat, the ACJV expanded its role throughout the Atlantic Flyway to all resident and migratory birds. As a first step, the ACJV launched the South Atlantic Migratory Bird Initiative (SAMBI) in the Southeastern Coastal Plain Bird Conservation Region. Biologists, land managers, and planners, representing non-governmental organizations, state and federal agencies, and private interests from five states (Florida, Georgia, South Carolina, North Carolina, Virginia) assembled to begin the process of developing a regionally based biological plan, integrating the objectives of four major bird conservation initiatives: the North American Waterfowl Management Plan, United States Shorebird Conservation Plan, North American Waterbird Conservation Plan, and Partners in Flight. The primary objectives were to develop population and habitat goals for priority species, delineate “all bird” focus areas, develop a long-term framework for bird conservation in the Southeastern Coastal Plain, and develop and seek funding for “all bird” projects. This effort has been tremendously successful, receiving nearly \$18 million dollars for sixty projects within the ACJV for “all bird” conservation over the period from March 2000 to June 2003. Many of these projects focused on the conservation of waterfowl and wetland-dependent species, as well as landbirds, a very non-traditional approach by a waterfowl Joint Venture. These projects benefited a wide variety of other bird species, affected a variety of

land ownerships, and stimulated additional conservation partnerships throughout the South Atlantic Region. Because of the success of SAMBI, it serves as a model for “all bird” conservation.

## Background

One of the original waterfowl Joint Ventures formed under the North American Waterfowl Management Plan in 1988, the Atlantic Coast Joint Venture (ACJV) has evolved geographically from its original delineated boundaries in 1988 (*fig. 1*) to include the 17 Atlantic Flyway states and the Commonwealth of Puerto Rico (*fig. 2*). With these expanded boundaries came expanded responsibilities for the conservation of waterfowl and other wetland associated species. During this period of growth, several other bird conservation initiatives had begun planning at various scales. These initiatives included Partners in Flight (Pashley et al. 2000), United States Shorebird Conservation Plan (Brown et al. 2001), and the North American Waterbird Conservation Plan (Kushlan et al. 2002). These initiatives have developed continental, national or regional plans that addressed species population and habitat goals.

The North American Bird Conservation Initiative (NABCI) was established to facilitate the common goals and objectives of these initiatives and create a more efficient mechanism for the delivery of bird conservation (U.S. NABCI Committee 2000). Bird Conservation Regions (BCRs), were delineated by NABCI as ecological planning units. Also, other single species bird conservation initiatives have been, or are being, developed for Northern Bobwhite (*Colinus virginianus*; Dimmick et al. 2002), Mourning Dove (*Zenaidura macroura*), and American Woodcock (*Philohela minor*). Currently, only the Northern Bobwhite Conservation Initiative is complete.

In March 1999, the Management Board of the ACJV unanimously adopted and embraced the framework of NABCI to deliver conservation of “all birds across all habitats.” The ACJV was the first NAWMP Joint Venture to officially endorse NABCI. The first task of integrated bird conservation planning began in 1999 in

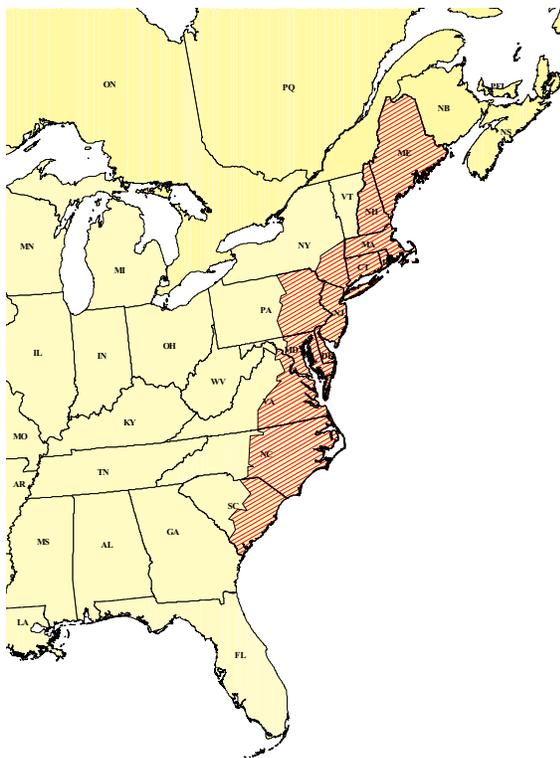
<sup>1</sup>A version of this paper was presented at the **Third International Partners in Flight Conference, March 20-24, 2002, Asilomar Conference Grounds, California.**

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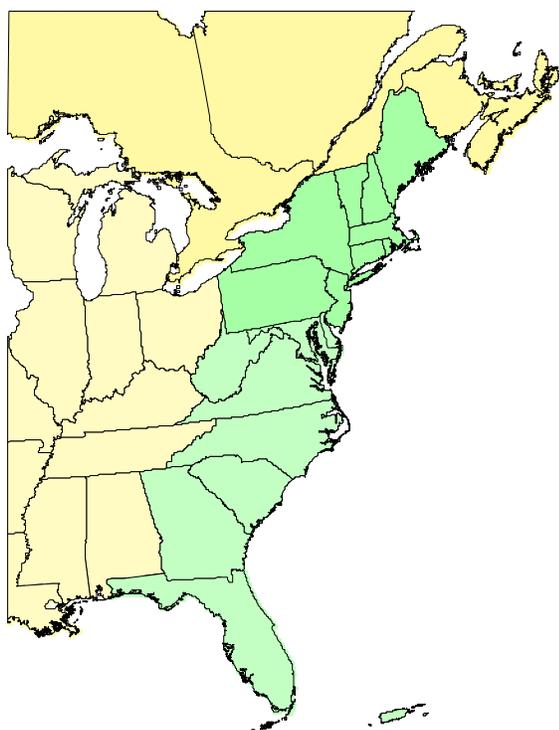
<sup>3</sup>U.S. Fish and Wildlife Service, Atlantic Coast Joint Venture, P.O. Box 307, Charlestown, RI 02813. Current address: U. S. Fish and Wildlife Service, North Mississippi Refuges Complex, 2776 Sunset Dr., Grenada, MS 38901.

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**Figure 1**— Original Boundary of the Atlantic Coast Joint Venture (1988).



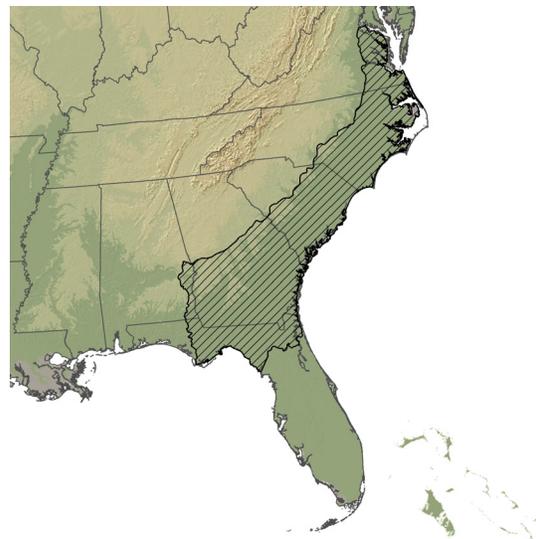
**Figure 2**— Area of the Atlantic Coast Joint Venture in 2002.

the Southeastern Coastal Plain Bird Conservation Region (BCR 27).

### Process of Preparing and Conducting an Integrated Bird Conservation Planning Workshop

In May 1999, the Management Board initiated integrated bird conservation planning in the southeast, initially focusing on Georgia, South Carolina, and North Carolina. Approximately 45 land managers, biologists, scientists, administrators, and planners met in June 1999 near Garnett, South Carolina in the first workshop.

The objectives of the workshop were to 1) develop population and habitat objectives for priority species 2) delineate “all bird” focus areas, 3) identify priority habitats, 4) develop projects for implementation, and 5) develop a long-term dynamic framework for integrated bird conservation planning in BCR 27. This initiative is known as the South Atlantic Migratory Bird Initiative (SAMBI). Because the ACJV administratively encompasses only a portion of BCR 27, the planning area was limited to the coastal plain of Florida, Georgia, North Carolina, South Carolina, and Virginia (*fig. 3*).



**Figure 3**— Geographic Planning Area – South Atlantic Migratory Bird Initiative (1999).

The first workshop opened with reports on the status of bird conservation planning for each of the major bird initiatives, followed by presentations on several different approaches to developing population and habitat objectives for shorebirds and waterfowl in the United States. The purpose of these presentations was to pro-

vide information about the ACJV, the status and evolution of bird conservation planning in the United States and North America, and demonstrate that a vision of integrated bird conservation could become a reality through a coordinated effort.

All sessions, breakout and plenary, were conducted with a facilitator. The structure of the first workshop centered on breakout groups by state (FL, GA, SC, NC, and VA), with experts in waterfowl, landbirds, shorebirds, and waterbirds, present. These groups, known as State Working Groups (SWG), became the fundamental planning and implementation body for SAMBI. Technical personnel from each state formed the BCR Technical Committee. The primary objectives of the breakout groups were to 1) delineate “all bird” focus areas, 2) develop strategic population and habitat objectives for each major bird group or at least representative or high priority species within each bird group, and 3) identify preliminary projects for implementation at the state level. During this process, SWGs were asked to identify information gaps and needs relative to developing habitat and population objectives for BCR 27. Additionally, the entire group was asked to express their hopes and concerns about the meeting’s purpose, and their vision for what this effort might be if successful. After the breakout and general sessions were complete, an open discussion was held on the process undertaken at this meeting, noting comments on how the process could be improved. In closing the first workshop, action items and future activities were identified by the larger group.

The second workshop was held on 4-5 November 1999, in Greensboro, North Carolina. There were no breakout sessions, meeting attendance was reduced, and attendees were comprised mostly of technical personnel. The primary focus of the second meeting was to report and present to the group the completion of action items from the first workshop, prioritize habitats and species, prioritize habitat conservation needs, prioritize projects by state, develop research needs, and begin developing a project to be submitted to the North American Wetlands Conservation Act (NAWCA) for funding. Action items for the group and each SWG were generated at the end of the workshop.

A third meeting was held on 19 January 2000, in St. Petersburg, Florida. The primary purpose of this meeting was solely devoted to developing a multi-state, multi-project proposal to be submitted for funding through NAWCA using a new integrated framework of bird conservation planning in the southeastern United States.

## Workshop Results

### Priority Species and Habitat

Priority species for landbirds, shorebirds, and waterbirds have been identified in each major bird initiative’s national and/or regional plans; Partners in Flight (Pashley et al. 2000, Hunter et al. 2001), United States Shorebird Conservation Plan (Brown et al. 2001, Hunter et al. 2002), and the North American Waterbird Conservation Plan (Kushlan et al. 2002). Priority waterfowl species were selected based upon annual population analyses at the continental level, regional knowledge of waterfowl populations and habitat, local knowledge of waterfowl issues, and North American Waterfowl Management Plan priorities (U.S. Fish and Wildlife Service 1998a, U.S. Fish and Wildlife Service 2003). The BCR Technical Committee concurred with the list of priority species outlined in the various bird plans, adjusting priorities where applicable, and designating species of special management concern for the SAMBI planning area (*table 1*). Priority species outlined for SAMBI generally occupied priority habitats, therefore encompassing the conservation needs of suites of species. Additionally, regional responsibilities and areas of importance for some species were identified. For example, eastern North Carolina was identified as having both regional responsibility and supporting a highly significant wintering area for tundra swan (*Cygnus bicolor*) for the entire Atlantic Flyway.

Priority habitats for each of the bird groups also are clearly identified in regional bird conservation plans based on the list of priority species. To describe these habitats in a concise and yet meaningful manner, they were lumped and placed into categories (*table 1*). SWGs often had additional habitats of local importance they wished to have included in the list of priority habitats. These habitats were lumped into the broader categories (*table 2*), yet they remained discreet at the SWG level. Additionally, SWGs identified priority areas for conservation within their jurisdiction.

### Delineation of Focus Areas

A primary objective of SAMBI was to delineate focus areas, areas in which conservation actions are implemented for high priority species and habitats. Focus areas are biologically based, and conservation actions are dictated by both biological foundation and opportunity. It is important that focus areas be large enough to provide all the necessary seasonal requirements for a wide variety of species. At the same time, small, distinct and sometimes disjunct areas that are important to high priority species should be included. Essentially, focus areas are important to the life history of a wide variety of high priority birds where financial and

**Table 1--** Priority Species List for the Southeastern Coastal Plain Bird Conservation Region (BCR 27).

| <b>Work group</b>                                | <b>Species</b>  |   |  |
|--|---|---|--|
| Landbirds  | Painted Bunting<br><i>Passerina ciris</i>                 | Henslow's Sparrow<br><i>Ammodramus henslowii</i>            | Cerulean Warbler<br><i>Dendroica cerulea</i>                   |
|  | Black-throated Green Warbler<br><i>Dendroica virens</i>   | Northern Bobwhite<br><i>Colinus virginianus</i>             | Prothonotary Warbler<br><i>Protonotaria citrea</i>             |
|  | Bachman's Sparrow<br><i>Aimophila aestivalis</i>          | Prairie Warbler<br><i>Dendroica discolor</i>                | Chuck-will's Widow<br><i>Caprimulgus carolinensis</i>          |
|  | Swallow-tailed Kite<br><i>Elanoides forficatus</i>        | Red-cockaded Woodpecker<br><i>Picoides borealis</i>         | Whippoorwill<br><i>Caprimulgus vociferus</i>                   |
|  | American Kestrel<br><i>Falco sparverius</i>               | Red-headed Woodpecker<br><i>Melanerpes erythrocephalus</i>  | Louisiana Waterthrush<br><i>Seiurus motacilla</i>              |
|  | Brown-headed Nuthatch<br><i>Sitta pusilla</i>             | Wood Thrush<br><i>Hylocichla mustelina</i>                  | Saltmarsh Sharp-tailed Sparrow<br><i>Ammodramus caudacutus</i> |
|  | Swainson's Warbler<br><i>Limnithlypis swainsonii</i>      | Northern Parula<br><i>Parula americana</i>                  | Nelson's Sharp-tailed Sparrow<br><i>Ammodramus nelsoni</i>     |
|  | Common Ground Dove<br><i>Columbina passerine</i>          | Hooded Warbler<br><i>Geothlypis nelsoni</i>                 | LeConte's Sparrow<br><i>Ammodramus leconteii</i>               |
|  | Common Barn Owl<br><i>Tyto alba</i>                       | Worm-eating Warbler<br><i>Helmitheros vermivorus</i>        | Yellow-throated Warbler<br><i>Dendroica dominica</i>           |
|  | Loggerhead Shrike<br><i>Lanius ludovicianus</i>           | Yellow-billed Cuckoo<br><i>Coccyzus americanus</i>          | Seaside Sparrow<br><i>Ammodramus maritimus</i>                 |
|  | Waterbirds  | Black Rail<br><i>Laterallus jamaicensis</i>                 | Sandwich Tern<br><i>Sterna sandvicensis</i>                    |
| Yellow Rail<br><i>Coturnicops noveboracensis</i> |   | Wood Stork<br><i>Mycteria americana</i>                     | Limpkin<br><i>Aramus guarauna</i>                              |
| Brown Pelican<br><i>Pelecanus occidentalis</i>   |   | King Rail<br><i>Rallus elegans</i>                          | Black Tern<br><i>Chlidonias niger</i>                          |
| Black Skimmer<br><i>Rynchops niger</i>           |   | Double-crested Cormorant***<br><i>Phalacrocorax auritus</i> | Royal Tern<br><i>Sterna maxima</i>                             |
| Gull-billed Tern<br><i>Sterna nilotica</i>       |   | Clapper Rail<br><i>Rallus longirostris</i>                  | Common Tern<br><i>Sterna hirundo</i>                           |
| Least Tern<br><i>Sterna antillarum</i>           |   | American Bittern<br><i>Botaurus lentiginosus</i>            | Little Blue Heron<br><i>Egretta caerulea</i>                   |
| Shorebirds                                       | Buff-breasted Sandpiper<br><i>Tryngites subruficollis</i> | Marbled Godwit<br><i>Limosa fedoa</i>                       | Willet<br><i>Catoptrophorus semipalmatus</i>                   |
|  | American Woodcock<br><i>Scolopax minor</i>                | Stilt Sandpiper<br><i>Calidris himantopus</i>               | Purple Sandpiper<br><i>Calidris maritima</i>                   |
|  | Red Knot<br><i>Calidris canutus</i>                       | Spotted Sandpiper<br><i>Actitis macularia</i>               | Whimbrel<br><i>Numenius phaeopus</i>                           |
|  | Piping Plover<br><i>Charadrius melodus</i>                | Semi-palmated Sandpiper<br><i>Calidris pusilla</i>          | Least Sandpiper<br><i>Calidris minutilla</i>                   |
|  | American Oystercatcher<br><i>Haematopus palliatus</i>     | Short-billed Dowitcher<br><i>Limnodromus griseus</i>        | Ruddy Turnstone<br><i>Arenaria interpres</i>                   |
|  | Wilson's Plover<br><i>Charadrius wilsonia</i>             | Western Sandpiper<br><i>Calidris mauri</i>                  | Dunlin<br><i>Calidris alpina</i>                               |
|  | Black-bellied Plover<br><i>Pluvialis squatarola</i>       | American Avocet<br><i>Recurvirostra americana</i>           | Sanderling<br><i>Calidris alba</i>                             |

**Table 1.** (contd.)

| Work group | Species   |   |   |
|------------|---|---|---|
| Pelagic    | Black-capped Petrel<br><i>Pterodroma hasitata</i>   | Cory's Shearwater<br><i>Calonectris diomedea</i>      | Sooty Tern<br><i>Sterna fuscata</i>                 |
|            | Bermuda Petrel<br><i>Pterodroma cahow</i>           | Greater Shearwater<br><i>Puffinus gravis</i>          | White-tailed Tropicbird<br><i>Phaethon lepturus</i> |
|            | Roseate Tern<br><i>Sterna dougallii</i>             | Long-tailed Jaeger<br><i>Stercorarius longicaudus</i> | Manx Shearwater<br><i>Puffinus puffinus</i>         |
|            | Audubon's Shearwater<br><i>Puffinus lherminieri</i> | Common Loon<br><i>Gavia immer</i>                     | Red-throated Loon<br><i>Gavia stellata</i>          |
|            | Bridled Tern<br><i>Sterna anaethetus</i>            | Northern Gannet<br><i>Morus bassanus</i>              |   |
| Waterfowl  | Black Duck<br><i>Anas rubripes</i>                  | Greater Scaup<br><i>Aythya marila</i>                 | White-winged Scoter<br><i>Melanitta fusca</i>       |
|            | Wood Duck<br><i>Aix sponsa</i>                      | Mallard<br><i>Anas platyrhynchos</i>                  | Canada Goose*<br><i>Branta canadensis</i>           |
|            | Tundra Swan<br><i>Cygnus columbianus</i>            | Redhead<br><i>Aythya americana</i>                    | Northern Pintail<br><i>Anas acuta</i>               |
|            | Canvasback<br><i>Aythya valisineria</i>             | Ring-necked Duck<br><i>Aythya collaris</i>            | Blue-winged Teal<br><i>Anas discors</i>             |
|            | Lesser Scaup<br><i>Aythya affinis</i>               | Surf Scoter<br><i>Melanitta perspicillata</i>         | Canada Goose**<br><i>Branta canadensis</i>          |
|            | Black Scoter<br><i>Melanitta nigra</i>              |   |   |

\*Atlantic and Southern James Bay Canada Goose

\*\*introduced established resident populations of Canada goose

\*\*\*overabundant species in many areas

**Table 2—Habitat-species suites in the eastern portion of the Southeastern Coastal Plain Bird Conservation Region (BCR 27).**

| Habitat  | Priority species**   | Description  |
|--|--|--|
| 1) Grasslands, savannas, pastures, and associated wetlands | Henslow's Sparrow, Loggerhead Shrike, Northern Bobwhite, LeConte's Sparrow, Buff-bellied Sandpiper, Sandhill Crane   | Forest-dominated landscapes with pitcher plant bogs, prairies, sedge lands, savannas, barrens, glades, and sod farms   |
| 2) Managed and palustrine emergent wetlands and mudflats   | King Rail, Yellow Rail, Black Rail, Least Bittern, American Bittern, Buff-bellied Sandpiper, Stilt Sandpiper, Whimbrel, Northern Pintail, Black Duck, Ring-necked Duck, Wood Stork | Freshwater marshes and mudflats-freshwater emergent tidal marshes, managed impoundments, dredge spoil, exposed mudflats (managed and shallow water)  |
| 3) Early-successional shrub-scrub                          | Bachman's Sparrow, Henslow's Sparrow, Loggerhead Shrike, Prairie Warbler, Northern Bobwhite, American Woodcock, Field Sparrow  | "Old-field", hedgerows, fire maintained plant communities under mature pine forests, bogs, and remnant cedar ( <i>Juniperus</i> spp.) glades   |
| 4) Forested wetlands (alluvial)                            | Swallow-tailed Kite, Prothonotary Warbler, Black-throated Green Warbler, Cerulean Warbler, Swainson's Warbler, Yellow-throated Warbler, Wood Duck, Mallard                         | Bottomland hardwood forests, alluvial forests, and swamp forests, alluvial floodplain, major forest types are cottonwood ( <i>Populus</i> spp.), oak ( <i>Quercus</i> spp., oak/hickory ( <i>Carya</i> spp.), cypress ( <i>Taxodium</i> spp.) /tupelo ( <i>Nyssa</i> spp., and sweetbay ( <i>Magnolia</i> spp./redbay ( <i>Persea</i> spp. ) |

Table 2. (contd.)

| Habitat   | Priority species**  | Description  |
|---|---|--|
| 5) Forested wetlands (non-alluvial)   | Black-throated Green Warbler, Swainson's Warbler, Prothonotary Warbler, Worm-eating Warbler, Red-cockaded Woodpecker, Brown-headed Nuthatch, Red-headed Woodpecker, Chuck-will's-widow, Wood Duck, Yellow-throated Warbler, Northern Parula | Pocosins, Carolina Bays, and other non-alluvial wetlands, pond pine dominated pocosins, palmetto ( <i>Sabal</i> spp.), laurel oak ( <i>Quercus laurifolia</i> ), loblolly pine ( <i>Pinus taeda</i> )  |
| 6) Maritime forest/shrub-scrub  | Painted Bunting, Prairie Warbler, Common Ground Dove, Northern Parula, Yellow-throated Warbler, Bicknell's Thrush, Kirtland's Warbler, Cape May Warbler, Black-throated Blue Warbler, Connecticut Warbler                                   | Live oak ( <i>Quercus virginianus</i> ), palmetto ( <i>Sabal palmetto</i> ), loblolly pine ( <i>Pinus taeda</i> ), coastal hammocks with numerous understory species, shrub-scrub thickets of wax myrtle ( <i>Myrica cerifera</i> ) and yaupon holly ( <i>Ilex vomitoria</i> ) |
| 7) Estuarine emergent wetlands  | Nelson's Sharp-tailed Sparrow, Salt Marsh Sharp-tailed Sparrow, Seaside Sparrow, Black Rail, Yellow Rail, Black Duck, Wood Stork, Blue-winged Teal  | Estuaries - tidal flats, emergent wetlands, and border maritime woodlands  |
| 8) Beaches and dunes  | Red Knot, Piping Plover, Snowy Plover, Wilson's Plover, Least Tern, Royal Tern, Black Skimmer, American Oystercatcher, Reddish Egret  | Beaches, dunes, overwash areas, oyster bars, rock jetties, dredge spoil areas  |
| 9) Open ocean (Gulf Stream)   | Black-Capped Petrel, Bermuda Petrel, Audubon's Shearwater, White-tailed Tropicbird, Roseate Tern, Black Scoter  | Open ocean waters near the Gulf Stream paralleling the South Atlantic Coastal Plain  |
| 10) Longleaf pine communities   | Red-Cockaded Woodpecker, Northern Bobwhite, Loggerhead Shrike, Prairie Warbler, Bachman's Sparrow, Henslow's Sparrow, Brown-headed Nuthatch, American Kestrel   | Longleaf pine ( <i>Pinus palustris</i> ) flatwoods and savannas, and longleaf sandhills, system is maintained by fire  |
| 11) Loblolly-Shortleaf pine   | Field Sparrow, Brown-Headed Nuthatch, Prairie Warbler, Bachman's Sparrow, Northern Bobwhite, Red-cockaded Woodpecker  | Mature loblolly, shortleaf ( <i>Pinus echinata</i> ), and slash pine ( <i>Pinus elliottii</i> ) forest; much of longleaf historic longleaf pine and shortleaf pine have been replaced with loblolly and slash pine stands  |
| 12) Short-rotation pine plantations   | Northern Bobwhite, Bachman's Sparrow, Field Sparrow, Prairie Warbler, Henslow's Sparrow, Wood Thrush  | Primarily loblolly and slash pine  |
| 13) Oak-hickory/tulip poplar ( <i>Liriodendron tulipifera</i> ) /pine forests | Priority species here are the same as for longleaf sandhills  | Turkey oak ( <i>Quercus laevis</i> ) and scrub oak ( <i>Quercus</i> spp.) species in the sandhills, and southern mixed mesophytic forests along bluffs and ravines   |
| 14) Riparian/mixed mesic hardwoods (southern mixed, hammocks)                 | Swainson's Warbler, Kentucky Warbler, Acadian Flycatcher, Louisiana Waterthrush, Cerulean Warbler   | Riparian-streamside areas, bottomlands and all palustrine wetlands on coastal plains and prairies, upland riparian areas; Hammocks-narrow bands of vegetation confined to slopes between upland sand/clayhill pinelands and bottomlands  |
| 15) Urban/suburban backyards, rural woodlots                                  | Important for transient nearctic neotropical species  | Riparian areas, mature woods, other non-forested areas   |
| 16) Other inland habitats   | Least Tern, American Avocet, Blue-winged Teal, Wood Duck, Wood Stork, Painted Bunting, Stilt Sandpiper, Semipalmated Sandpiper  | Rooftops, dredges spoil areas, flooded croplands, river bars, lakeshores, pasture and other agricultural lands   |

\*\*Scientific names provided in table 1.

conservation resources can be expended to have positive effects on these bird populations (Hayes et al., this volume).

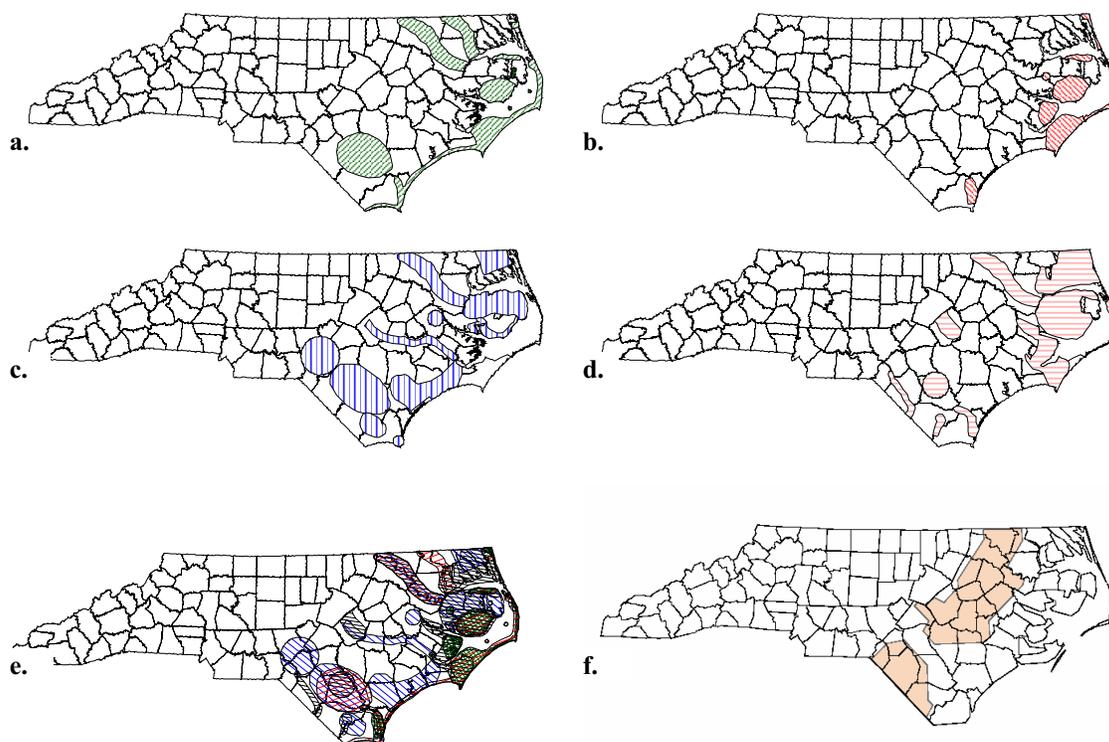
During the first workshop, SAMBI participants noted that focus areas should link important habitat areas, guard against fragmentation, and include upland areas. Public lands were considered to serve as anchors from which to base delineation of focus areas. Existing waterfowl focus areas were used as a starting point to delineate “all bird” focus areas. Waterfowl focus areas had already been described (U.S. Fish and Wildlife Service 1988b), and were known to provide critical habitat for waterfowl, shorebirds, and waterbirds. Additionally, SAMBI participants agreed that focus areas should be places where all disciplines could work together, and that geopolitical boundaries should be ignored.

State Working Groups were asked to delineate distinct focus areas for landbirds, shorebirds, waterbirds, and waterfowl. We used 1:250,000 topographic maps to delineate distinct focus areas for each bird group (fig. 4). Although North Carolina is used as an example, similar areas were delineated for South Carolina and Georgia. Once these areas were delineated for each bird group, the areas could be superimposed, display-

ing the overlap of focus areas. This exercise demonstrated the high degree of overlap of important areas for waterfowl, shorebirds, and waterbirds (fig. 4e). This layering of the various bird focus areas can be displayed to represent one large “all bird” focus area for each state, and each of the five states can be combined to display one large “all bird” SAMBI focus Area.

This effort allowed the participants to visualize differences in amounts and types of habitats across their own jurisdiction as well as across the entire BCR. Some states, such as North Carolina, worked on distinct focus areas for Northern Bobwhite (*Colinus virginianus*) and other early successional species. In North Carolina, a new program called CURE (Cooperative Upland Habitat Restoration and Enhancement) has delineated landscape scale focus areas in which to direct efforts for the conservation of high priority early successional species (fig. 4f).

It is important to note that focus areas for each bird group, whether at the State or regional level (SAMBI), are important to each bird group for conservation projects, contributing to conservation of priority bird species at the local, regional, flyway, and continental level. Additionally, SAMBI partners recognize that



**Figure 4**— Example of “All Bird” Focus areas in North Carolina. a) Waterbird focus areas; b) Shorebird focus areas; c) Landbird focus areas; d) Waterfowl focus areas; e) Overlay of bird group focus areas; and f) Cooperative and Upland Habitat Restoration and Enhancement (CURE) focus areas.

these focus areas are important for pursuing single bird group projects, such as for waterfowl or shorebirds, or even projects focused on a single high priority species. Thus, projects in focus areas need not necessarily contribute to multiple bird group conservation, but contribute to regional biodiversity.

### **Population and Habitat Objectives**

Population and/or habitat objectives were derived for many of the priority species of each major bird initiative based upon existing national and regional plans (Pashley et al. 2000; Brown et al. 2001; Hunter et al. 2001, 2002; Kushlan 2002; Kushlan et al. 2002), bird initiative workshops, and local/regional knowledge and expertise. These regional plans are quite detailed in objectives for both population and habitat for many of the high priority species. Because the SAMBI planning area is essentially the same as the planning area or area of geographic importance for priority species in these plans, objectives outlined in these plans are directly applicable to SAMBI.

Similar objectives for waterfowl have not been developed in a regional plan, and current objectives for waterfowl within the ACJV are area based and categorized by state and focus area (U.S. Fish and Wildlife Service 1988b). Factors influencing existing waterfowl objectives have significantly changed since 1988, warranting a revision of the current ACJV Implementation Plan and its objectives. For SAMBI, the Noffsinger method (Noffsinger, unpubl. ms.) was used to calculate waterfowl objectives by state (Balkcom, pers. comm.; Harrigal, pers. comm.; Luszcz, pers. comm.). The Noffsinger method is a modified calculation of the bioenergetics model that was used in the Mississippi Alluvial Plain to calculate both waterfowl and shorebird objectives (Loesch et al. 2000).

The SAMBI BCR Technical Committee developed habitat and/or population objectives for species they felt important but that were not specifically addressed in regional plans. Additionally, they adjusted existing population and habitat objectives for some priority species to better address local conservation needs. Finally, State Working Groups of the BCR Technical Committee stepped down regional objectives to state objectives for certain species. For example, the goal for Swallow-tailed Kite (*Elanoides forficatus*) in the Partners in Flight Bird Conservation Plan for the South Atlantic Coastal Plain (SACP) is to provide eight patches of at least 40,500 ha of bottomland hardwood forests. However, this plan does not indicate where in the SACP these large forest patches should be distributed. State Working Groups evaluated the availability and potential of such habitat within their respective states and assigned a portion of these eight patches to individual states. As an example, Georgia and South

Carolina allocated, respectively, two and three patches of the recommended eight patches to their states. Additionally, by allocating these patches to their states, the Swallow-tailed Kite goal also incorporated goals for Wayne's Black-throated Green Warbler (*Dendroica virens waynei*) and Swainson's Warbler (*Limnothlypis swainsonii*).

### **Project Implementation**

Another primary goal of SAMBI was to develop projects to meet the goals and objectives outlined in the first two workshops. Members of the BCR technical committee decided to package eleven projects from a three-state area (GA, SC, and NC) into a NAWCA proposal. Project proposals included acquisition and restoration of bottomland hardwoods, enhancement of managed wetlands, restoration of native grasslands, and restoration of early successional habitat for colonial waterbirds. These eleven projects proposed to benefit 31 wetland-associated species as listed in the application package for NAWCA (U.S. Fish and Wildlife Service 2000). All projects were located in ACJV focus areas and SAMBI "all bird" focus areas. Additionally, all project areas were located within wetland types that are decreasing nationwide, and the areas proposed are to be held in perpetuity. Partners contributed approximately \$4 million in matching funds, and most match tracts were disjunct from project proposal sites.

The BCR representatives who packaged this project voiced two concerns regarding the approach they used. First, concern was raised whether a proposal with eleven projects over a three state area would be funded. Typically, projects funded under NAWCA are single projects, sometimes with multiple activities, in a single state. Secondly, match dollars and tracts required under NAWCA are typically within or adjacent to the project proposal site. However, in this multi-state multi-project proposal match tracts were generally disjunct from most of the project proposal sites, perhaps raising doubt about the contribution of the match tracts to the overall project. However, under the framework of SAMBI, disjunct tracts did contribute to the overall goals and objectives of SAMBI. We believe this link to the framework of SAMBI was critical to the project. This project was funded at \$1 million in 2000, launching SAMBI into a phase of project implementation that has been extremely successful. This first multi-state multi-project project was called the South Atlantic Migratory Bird Initiative Habitat Conservation Project.

SWGs have used the framework of SAMBI to submit additional projects for funding, and in fewer than four years, 60 projects have been funded at \$18.2 million. Over 200 partners have contributed over \$79 million in matching funds and approximately 45,765 ha have been conserved. Funding was primarily sought through

NAWCA, the National Coastal Wetlands Grant Program, and the Neotropical Migratory Bird Conservation Act. An additional \$75,000 has been provided by the ACJV to various partners for habitat conservation, research, and education and outreach. Finally, funding foundations are soliciting project proposals under this initiative, a true testimony to the success of SAMBI.

## Discussion

To our knowledge SAMBI was the first effort at integrated bird conservation planning at the BCR level under the NABCI. The South Atlantic Migratory Bird Initiative began as the framework of NABCI was emerging and when BCRs were still being developed. Although excellent integrated bird conservation planning has been conducted and successful throughout North America, SAMBI was unique in that the planning area was relatively large area and brought together a large number of partners from five states to conduct integrated planning at a level that had not been done in the ACJV, or perhaps in North America. When SAMBI first began we had no model or template to follow, and no one knew where this initiative would lead. It has led to an extremely successful effort, and key to this success is the enthusiasm and confidence that the SAMBI participants have in the process. Participants had the opportunity to apply their skills and knowledge toward regional and landscape-oriented bird conservation, giving each of them ownership in the process, and goals to achieve within their jurisdiction. Communication between technical personnel within and between states is occurring to coordinate project development and collaborate on strategies to optimize project funding and implementation.

Another important first step to the success of SAMBI was the immediate funding of the SAMBI Habitat Conservation Project described above. Eleven projects were implemented in three states with the funding of this one project, which generated interest, built confidence, and provided momentum for SAMBI. SWGs began developing their own projects under the framework of SAMBI for funding. State Working Groups continue to meet on their own and recently SWG meetings have been conducted or scheduled to update information and retain the communication network that has been established. SWGs also have been responsible for stimulating other initiatives by linking regional and national issues to SAMBI. A few examples are: establishing a South Carolina Shorebird Habitat Management Group focused on working with private landowners to provide critical habitat during spring and fall migration; developing a SAMBI Pelagic Bird Conservation document and SAMBI Pelagic Bird Conservation Working Group; developing a SAMBI website

for land managers to view real-time data for wintering waterfowl and shorebird migration, and areas being managed for both; establishing a Painted Bunting Working Group; and establishing a Shrub/Scrub Early Successional Species Working Group. An Implementation Plan is currently being written for SAMBI, providing a biological framework for partners to use in project implementation.

Most recently the American Bird Conservancy, working with the Tri-national NABCI Committee, has identified and linked BCRs in Canada and the United States with those in Mexico. Bird Conservation Region 27 is one of those, and SAMBI has a distinct link with Mexico in the Yucatan, El Triunfo, and Chamela-Cuixmala with species such as, but not limited to, Chuck-will's Widow (*Caprimulgus carolinensis*), Wood Thrush (*Hylocichla mustelina*), Worm-eating Warbler (*Helminthos vermivorous*), Swainson's Warbler, and Louisiana Waterthrush (*Seiurus aurocapillis*). It is highly likely that partners in SAMBI will establish relationships with partners in Mexico and Canada to address conservation needs for some of these common species.

## Conclusion

The South Atlantic Migratory Bird Initiative has been extremely successful and has generated much interest in the rapidly evolving world of bird conservation. Additionally, SAMBI was used as a template for a similar planning effort coordinated by the ACJV in the Lower Great Lakes-St. Lawrence Plain Bird Conservation Region. Similar efforts are planned for the remaining BCRs in the ACJV (Milliken et al., this volume). Much of the process of SAMBI is being used for "all bird" workshops being conducted for state conservation agencies by the International Association of Fish and Wildlife Agencies. There are many reasons why SAMBI has been successful, and many of these items are outlined in a well-summarized unpublished paper describing the components of conducting a successful BCR workshop (Pashley et al., unpubl. ms.). The initial objectives of SAMBI have been met, and SAMBI will continue to be a dynamic planning process to implement conservation of "all birds across all habitats." There are some tasks and issues that remain to be addressed, such as monitoring needs, plan evaluation, and project evaluation. It is important to meet regularly at the working group level and the BCR level. Communication is extremely important, particularly in coordinating projects and assigning priority to projects competing for the same funds. Participants must have ownership in the effort to generate enthusiasm and keep the momentum of the initiative continuing. An Implementation Plan is being written to provide gui-

dance and strategies for achieving the goals and objectives of SAMBI. The South Atlantic Migratory Bird Initiative, in a sense, has been an integration of human resources, resources that have met an unforeseen challenge and led the way in the conservation of “all bird across all habitats” in North America.

### Recommendations for a Successful BCR Planning Effort

Because this effort has been extremely successful in implementing our vision of integrated bird conservation, we offer the following recommendations as a basis for conducting similar successful regional conservation planning efforts:

1. Key persons in the BCR should be identified and contacted prior to any formal meetings. These persons should identify all potential partners who should attend any upcoming workshops and meetings.
2. A pre-workshop meeting should be held to discuss all activities associated with the initial workshop. Key persons identified above should meet and develop an agenda and items necessary to carry out an initial formal workshop, including where the meeting should be held, list of material and supplies needed (maps, supplies, etc.) and desired outcomes.
3. One person should be designated as the coordinator or planner to ensure that any follow up actions, recording of meetings, future meetings, and essential coordination takes place.
4. A communication network should be established to facilitate and promote coordination.
5. Meetings should be held regularly to facilitate communication, update various aspects of the planning effort, and to sustain the continuity and momentum of the initiative.
6. Design and implement significant short term conservation projects. This will demonstrate to partners that success is possible, and it will provide ownership in the initiative by the partners.
7. Finally, an Implementation Plan should be written, providing goals and objectives for the region, and providing guidance and strategies to accomplish these goals and objectives.

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