

**FINAL DRAFT**

# Avian Conservation Implementation Plan San Juan National Historic Site

National Park Service  
Southeast Region



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In cooperation with

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And Bird Conservation Partners  
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## Introduction

This Avian Conservation Implementation Plan (ACIP) is provided to the staff at San Juan National Historic Site (SAJU) to serve as guidance to identify, document, and undertake bird conservation activities in the park and with neighboring communities, organizations, and adjacent landowners. This plan may identify goals, strategies, partnerships, and perhaps specific projects for the park to participate in existing bird conservation planning and implementation efforts associated with the North American Bird Conservation Initiative (NABCI). Under the auspice of NABCI, appropriate bird and habitat conservation goals may be recommended as identified in the appropriate existing national or regional bird conservation efforts aligned with this initiative: Partners In Flight (PIF), North American Waterfowl Management Plan (NAWMP), US Shorebird Conservation Plan (USSCP), and Waterbird Conservation for the Americas (WCA). Because SAJU is an urban park within the city of San Juan, Puerto Rico, and whose avifauna is largely urban, very few recommendations will be provided in the ACIP due to the nature of the park and its landscape. However, any bird conservation issues for SAJU will be discussed and integrated as appropriate.

Information and data presented in the ACIP have been obtained from several sources: 1) interviews with SAJU staff and 2) the PIF Puerto Rico and US Virgin Islands Bird Conservation Plan (Nunez-Garcia and Hunter 2000). This plan has been reviewed by SAJU resource management staff and managers and approved by SAJU management. Optimally, this plan will be incorporated into the park's Resource Management Plan (RMP) and updated annually to reflect completed projects, newly identified needs, and shifts in bird conservation priorities in the region.

**SAJU is not obligated to undertake any of the proposed actions in this plan. The plan is provided to offer guidance to SAJU to voluntarily support important park, regional, and perhaps national and international bird conservation projects for which SAJU is a primary participant in the proposed actions.**

## Background

During the past thirty years, monitoring programs across North America have documented declines of certain bird species populations and their habitats, often severe (Sauer et al. 2000). The decline has caused great concern among scientists, biologists, biodiversity proponents, ecologists, land managers, etc., and the bird conservation community in general. Birds are recognized as critical components of local and global genetic, species, and population diversity, providing important and often critical ecological, social, and cultural values. Their overall decline has stimulated a worldwide focus on conservation efforts and North American interest in bird conservation is rapidly becoming a focus of government, non-government, industry, and private interests and expenditures.

Many state, federal, and non-governmental wildlife agencies and organizations (NGO's) have recognized this alarming bird decline trend and have joined forces in several

extensive partnerships to address the conservation needs of various bird groups and their habitats. The primary initiatives are:

- North American Waterfowl Management Plan
- Partners in Flight
- U.S. Shorebird Conservation Plan
- Waterbird Conservation for the Americas

While efforts associated with these plans have generated some successes, it has been increasingly recognized that the overlapping conservation interests of these initiatives can be better served through more integrated planning and delivery of bird conservation. The *North American Bird Conservation Initiative (NABCI; <http://www.nabci-us.org/main2.html>)* arose out of this realization. The vision of NABCI is simply to see **“populations and habitats of North America’s birds protected, restored and enhanced through coordinated efforts at international, national, regional, state and local levels, guided by sound science and effective management.”** NABCI seeks to accomplish this vision through (1) broadening bird conservation partnerships, (2) working to increase the financial resources available for bird conservation in the U.S., and (3) enhancing the effectiveness of those resources and partnerships by facilitating integrated bird conservation (U.S. NABCI Committee 2000). Together, the four bird conservation initiatives mentioned above, as well as several other local and regional partnerships, work collectively to pursue this vision.

NABCI is guided by a set of principles that establish an operational framework within which the Initiative and its partners may conduct integrated bird conservation in the U.S. These will articulate a common understanding of the relationship between NABCI, the individual bird conservation initiatives, and all partner entities to ensure recognition of existing federal legislative and international treaty obligations, state authorities, and respect for the identity and autonomy of each initiative. The fundamental components of the conservation approach to be used by NABCI are expressed within its goal:

***To deliver the full spectrum of bird conservation through regionally-based, biologically-driven, landscape-oriented partnerships.***

**The Southeastern Bird Conservation Initiative: National Park Service:** In 1999, the Southeast Region of the National Park Service (NPS) recognized the importance of coordinating existing bird conservation goals into planning and operations of national park units in the southeast, that is, integration of NABCI. In support of this recognition, the Southeast Regional Office NPS approved and allocated eighty-eight thousand dollars, cost sharing 1:1 with the US Fish and Wildlife Service (FWS) Region 4 (Southeast) to hire a biologist to conduct this two-year project (Interagency Agreement FS028 01 0368). This project is unique in the NPS, and perhaps the nation, and represents a potential model for better coordinating regional bird conservation programs and activities within and outside the NPS. It further represents a progressive action toward institutionalizing bird conservation as a programmatic priority in the Southeast Region of NPS, and potentially the nation.

As envisioned, the integration of NABCI into the Southeastern NPS involves:

- 1) Development and delivery of Avian Conservation Implementation Plans (ACIP),
- 2) Coordination with NPS Inventory and Monitoring Program,
- 3) Development of a web based project site,
- 4) Establishment or enhancement of bird conservation partnerships,
- 5) Identification and exploration of potential funding opportunities, and
- 6) Technical guidance and assistance as needed or requested.

This ACIP fulfills one aspect of the plan outlined above, and serves as a basis for future bird conservation actions in SAJU and with adjacent partners or landowners.

Concurrently, the development of a Memorandum of Understanding (MOU) between the FWS and the NPS (Appendix A) to implement Presidential Executive Order (EO) 13186, **Responsibilities of Federal Agencies To Protect Migratory Birds**, calls for integration of programs and recommendations of existing bird conservation efforts into park planning and operations. Complementing each other, the MOU and the Southeastern Bird Conservation Initiative will advance bird conservation in the Southeast Region of the NPS beyond current regional NPS efforts.

## **Role of NPS in Avian Conservation**

The interagency agreement that facilitates this partnership supports both FWS and NPS management policies. Specifically for the NPS, the agreement supports and advances the **Strategy for Collaboration** (March 2000), a visionary document developed and signed by the Southeast Natural Resource Leaders Advisory Group (SENRLAG), a consortium of 13 land and resource management agencies in the Southeastern United States whose vision is to encourage and support cooperation in planning and managing the region's natural resources. Furthermore, the agreement is aligned with and implements a variety of NPS Management Policies (2001) including but not limited to External Threats and Opportunities (Chapter 1.5), Environmental Leadership (Chapter 1.6), Cooperative Planning (Chapter 2.3.1.9), Land Protection (Chapter 3), and especially Natural Resource Management (Chapter 4) that details policy and management guidelines which apply to bird conservation. Important policies in this chapter includes:

- Planning for Natural Resource Management (4.1.1)
- Partnerships (4.1.4)
- Restoration of Natural Systems (4.1.5)
- Studies and Collection (4.2)
- General Principles for Managing Biological Resources (4.4.1)
- Plant and Animal Population Management Principles (4.4.1.1)
- Management of Native Plants and Animals (4.4.2)
- Management of Endangered Plants and Animals (4.4.2.3)
- Management of Natural Landscapes (4.4.2.4)
- Management of Exotic Species (4.4.4)
- Pest Management (4.4.5)

- Fire Management (4.5) and
- Water Resource Management (4.6)

The NPS is the fourth largest landowner in the United States, consisting of over 380 national park units covering 83 million acres of land and water with associated biotic resources ([www.nps.gov](http://www.nps.gov)). The 64 units in the Southeast Region of the NPS represent 16% of the total number of park units in the national park system and cover approximately 5% of the total land base in the entire system. Park units in the Southeast Region include national seashores (Canaveral National Seashore, Cape Hatteras National Seashore), national parks (Great Smoky Mountains National Park, Everglades National Park), national recreation areas (Big South Fork National River and Recreation Area), national preserves (Big Cypress National Preserve), national battlefields (Cowpens National Battlefield, Fort Donelson National Battlefield), national monuments (Ocmulgee National Monument), and others such as the Blue Ridge Parkway, Obed Wild and Scenic River, and Timicuan Ecological and Historic Preserve.

Southeast NPS units provide habitat for over 400 species of migrating, breeding, and wintering birds and include a wide range of Federal and State listed threatened and endangered species. Likewise, these units also provide nest, migration, and winter habitat for most of the eastern species identified in the national bird conservation plans in need of conservation attention.

Additionally, the NPS attracts over 280 million visitors to the parks each year, 120 million of these in the Southeast Region, affording excellent recreational bird watching and opportunities to strengthen bird conservation interpretation, outreach, and education programs. These opportunities, the NPS mission, policies, and organization all lead to the conclusion that the NPS is an extremely valuable partner and contributor to bird conservation in the region.

Nationally, the status of birds in national parks is largely unknown, although many parks have adequate knowledge regarding bird occurrence in the parks (<http://www.npwrc.usgs.gov/resource/othrdata/chekbird/chekbird.htm>). Parks often play a role in ongoing regional bird conservation efforts. Indeed many of these parks are often important to regional, national, or international bird conservation, and many have been designated as Important Bird Areas (IBA's) by the National Audubon Society. To date, there are approximately 64 NPS units that are designated IBA's, 35 of which are considered of global importance (<http://abcbirds.org/iba/aboutiba.htm>). In the Southeast Region, the NPS has 13 IBA's.

The **NPS Inventory and Monitoring (I&M) Program** has been developed to provide management driven scientific information to national park managers so that resources can be adequately protected within national parks. One of the first phases of this program is to inventory vertebrates, including birds, within the 260 national park units in the program. Once completed, data from the inventories will provide an account of the occurrence and abundance of birds in all the national parks in the program. These records will be stored in the NPS I&M NPSpecies database (<http://www.nature.nps.gov/im/apps/npspp/>). Coordination with I&M network staff is

important to developing long-term bird monitoring programs that fulfill both park and NABCI objectives.

**Park Flight** is a NPS international partnership initiative that directs funding toward a variety of NPS programs that involve conservation of neotropical migratory birds whose life history range covers a US national park and a Latin American protected area. A relatively new program, Park Flight offers parks the opportunity to partner with a Latin American national park or protected area to cooperate on developing bird conservation and education projects (NPS 2002).

Recent increases in NPS base funded programs such as inventory and monitoring, exotic species management, habitat restoration, and fire management all indicate that national park managers recognize that park lands are increasingly subject to a variety of threats and conditions that must be improved to provide the quality of national park experience articulated in the NPS Organic Act (1916). Programmatic funding in these areas will increase the ability of national parks to provide quality habitat and conditions for increased wildlife conservation, including birds. Furthermore, private interests and non-profit conservation organizations have initiated programs, including grant programs, to provide much needed funding to national parks to meet backlogs of identified yet unfunded needs.

## **Park Description**

An island on the periphery of the "New World" empire, Puerto Rico served as a Spanish fortress designed to protect Spain's American holdings.

San Juan National Historic Site (SAJU) includes forts, bastions, powder houses, wall and El Cañuelo Fort, also called San Juan de la Cruz—defensive fortifications that once surrounded the old, colonial portion of San Juan, Puerto Rico. El Cañuelo Fort is located at Isla de Cabras at the western end of the entrance to San Juan Bay. Sections of the massive sandstone walls, dating to the 1630s, remain; so, too, do the San Cristóbal and San Felipe del Morro forts.

San Juan had the first municipal government in the "New World," outside Santo Domingo, as well as the first military presidio in Spanish America. By the 19th century, the old city had become a charming residential and commercial district. The city itself, with its institutional buildings, museums, houses, churches, plazas, and commercial buildings, is part of the San Juan Historic Zone that is administered by municipal, State and Federal agencies.

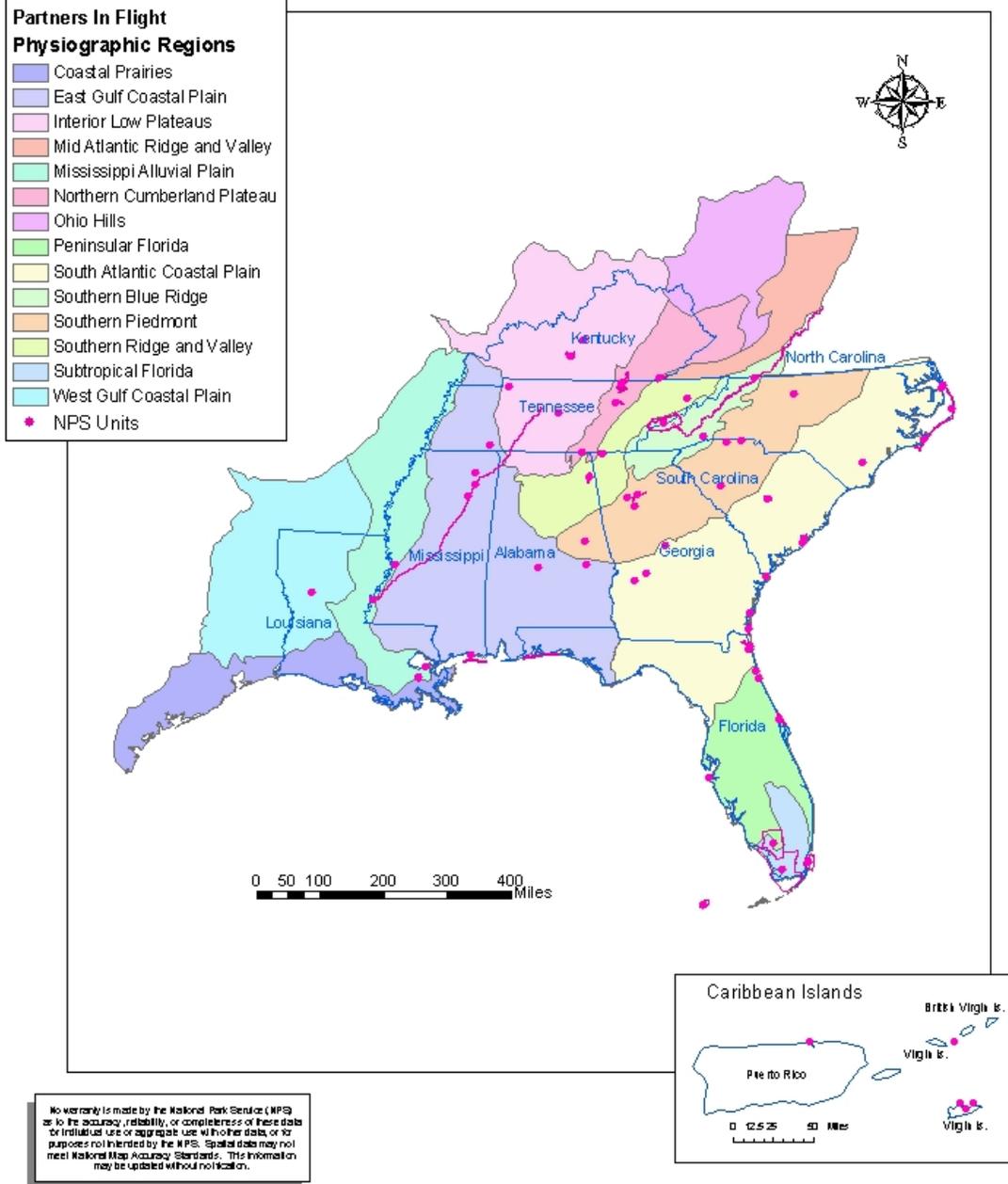
## **Avian Resources of Puerto Rico and the US Virgin Islands**

Puerto Rico and the Virgin Islands are part of the West Indies, a chain of islands that extends from Florida to Venezuela and separate the Caribbean Sea from the Atlantic Ocean (see PIF and NPS location map below). These tropical Islands are located within 17-19° latitude North and 64-68° longitude West about 1,609 kilometers from Florida and 805 kilometers from Venezuela.

# Partners in Flight (PIF) Regions

Southeast Region (SER)

National Park Service  
U.S. Department of the Interior



The U.S. Virgin Islands are located about 64 kilometers east of the Puerto Rico. These Islands comprise another archipelago that includes St. Thomas, St. John, St. Croix, and numerous uninhabited small islets and cays. The three main Islands were bought by the U.S.A. from Denmark in 1917 and are now U.S. Territory with a total area of 340 km<sup>2</sup>.

The number, size and shape of the islands comprised within this region combined with climate, topography, geological processes, and human activities have produced a tremendous diversity of habitats. Historically different types of forest covered most of the land area of Puerto Rico and the Virgin Islands. However, forest conversion caused by agricultural and other land use practices have shaped the present landscape. Forested landscape in the U.S. Virgin Islands is typified by sub-tropical dry forest and littoral shrubs.

Including vagrants, exotics and fossils, the total number of bird species in the region sums to 364. Presently, 276 species are known to occur in Puerto Rico and 210 in the Virgin Islands for a total of 284 species in the region (Raffaele 1989). Recent studies indicate that these numbers may change as many native forms may be reclassified as species or subspecies on their own. Raffaele (1989) categorized the regional birds species as follows: 97 breeding permanent residents (94 in Puerto Rico and 60 in the Virgin Islands), 11 breed and leave (11 in Puerto Rico and 10 in the Virgin Islands), 134 non-breeding migrants and visitors (134 Puerto Rico and 129 the Virgin Islands), 31 introduced probable breeders (31 in Puerto Rico and 6 in the Virgin Islands), five introduced possible breeders (same species for both Puerto Rico and the Virgin Islands), and one species recently extirpated from Puerto Rico. As the numbers indicate, migrant species comprise almost half of the species playing a major role in the ecology of the region. Also noteworthy is the establishment of a high number of exotic species. As a result of combining both native and exotic species, Puerto Rico supports 85 species of breeding land birds, the greatest number of any West Indian island and except for Cuba, harbors the second largest total number of species in the region (Raffaele 1989).

The oceanic nature of the islands in the region has resulted in increased endemism. Puerto Rico harbors **16 endemic** bird species including one endemic genus (*Nesospingus*) represented by a single species, the Puerto Rican Tanager And one family (Todidae) shared with the rest of the West Indian islands but found nowhere else. Raffaele (1989) considered 51 species to be threatened in the region mostly because of the detrimental effects of habitat alteration.

## **Avian Conservation in SAJU**

*Avian Biodiversity:* SAJU does not have an inventory.

**Threatened and Endangered Species:** No known Federally listed threatened or endangered species occur in the park.

No known Puerto Rico **Listed** species occur in SAJU other than fly overs of some species.

No high priority PIF species for the Caribbean occur in SAJU.

*Park Priorities:* Park staff have not identified any particular species that is a park conservation.

**Inventory:** No avian inventory is expected to be conducted.

**Monitoring:** No avian monitoring is expected at SAJU.

**Research:** No avian research is expected to occur within the park.

**Outreach:** The park does not have interpretive and outreach programs related to birds and bird conservation.

## **Park Identified Needs for Avian Conservation**

No avian conservation needs have been identified for the park.

## **Coordination with Regional Conservation Initiatives**

### *North American Bird Conservation Initiative*

NABCI bird conservation planning units, referred to as Bird Conservation Regions (BCR), are often larger than other planning units associated with other plans, such as Partners In Flight. For example, SAJU is within the NABCI BCR 69 that includes all of the Commonwealth of Puerto Rico, the US Virgin Islands and the British Virgin Islands and includes the physiographic region designated by Partners in Flight as Puerto Rico/Virgin Islands (see BCR map below; compare to PIF map).

Several NABCI BCR's have coordinators whose primary responsibility is to coordinate all bird conservation planning in the BCR, across all agencies and organizations. Currently, the Caribbean BCR does not have a designated coordinator.

### *North American Waterfowl Management Plan (NAWMP)*

The NAWMP (<http://northamerican.fws.gov/NAWMP/nawmphp.htm>) is completed and has been revised several times, incorporating updated goals and strategies based on new information. This plan is one of the most successful bird conservation delivery programs in the United States, being monetarily supported by the North American Wetlands Conservation Act (NAWCA).

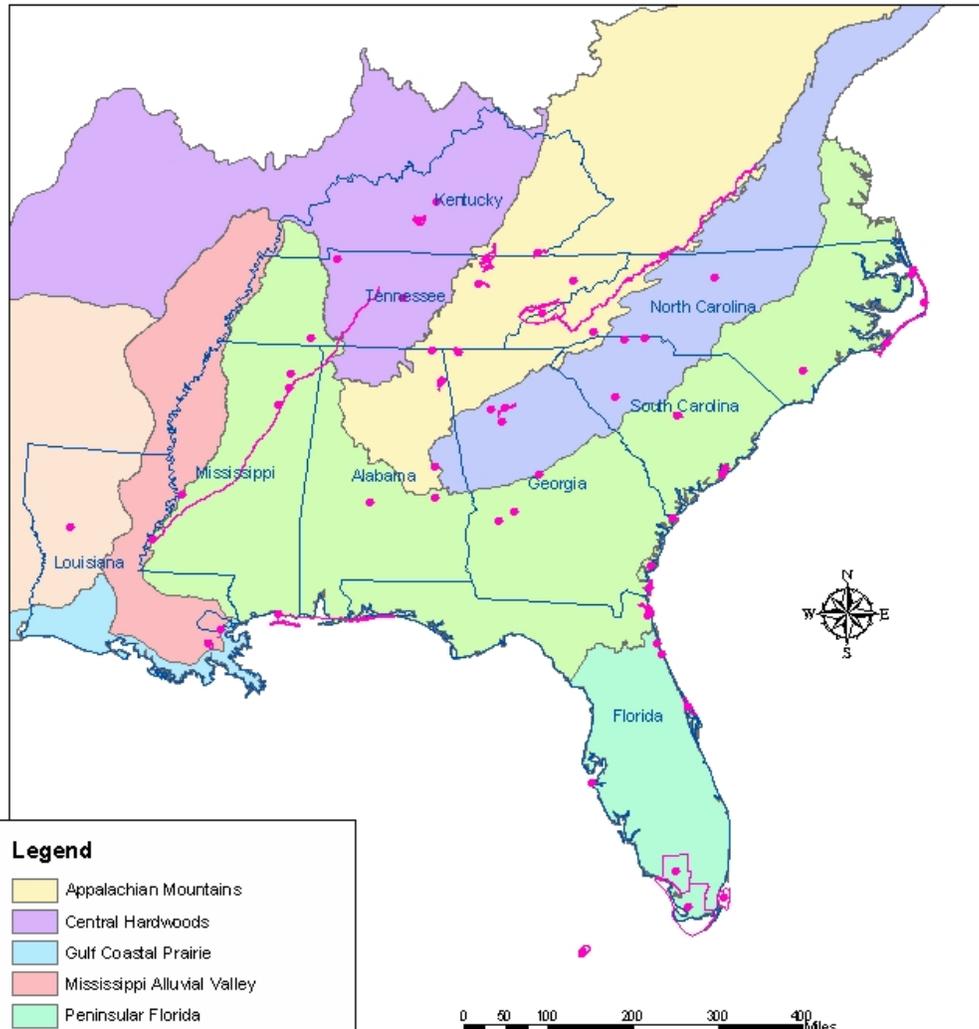
### *Partners In Flight*

Goals and strategies for the Caribbean can be found in the draft bird conservation plan, previously submitted to the park (Nunez-Garcia and Hunter 2000). The park will have little use for this plan.

# Bird Conservation Regions

Southeast Region (SER)

National Park Service  
U.S. Department of the Interior



**Legend**

- Appalachian Mountains
- Central Hardwoods
- Gulf Coastal Prairie
- Mississippi Alluvial Valley
- Peninsular Florida
- Piedmont
- Southeastern Coastal Plain
- West Gulf Coastal Plain/Ouachitas
- NPS Units



No warranty is made by the National Park Service (NPS) as to the accuracy, reliability, or completeness of these data for individual use or aggregate use in other data, or for purposes not intended by the NPS. Spatial data may not meet National Map Accuracy Standards. This information may be updated without notification.

### *United States Shorebird Conservation Plan (USSCP)*

The USSCP has been completed and is available on the world wide web (<http://shorebirdplan.fws.gov/>). A regional step down plan is in preparation by FWS personnel and should be available in 2003.

### *Waterbird Conservation for the Americas (WCA)*

The WCA plan has been completed and is available on the World Wide Web or can be ordered from the US Fish and Wildlife Service National Conservation Training Center (<http://www.waterbirdconservation.org/>).

## **Integration of NABCI Goals and Objectives into Park Planning and Operations**

### **NABCI Implementation Recommendations**

To successfully achieve park-established goals and actively participate in NABCI, the park could implement a variety of projects in different NPS programs. Most of these projects would require some level of participation by many existing park programs and could either be achieved through NPS funding, or more likely, through establishing or improving partnerships with agencies and organizations that already have the necessary expertise to provide guidance, funding, and execution of these programs. Programmatic areas where bird conservation actions are likely to be focused are:

- Inventory
- Monitoring
- Habitat Restoration
- Threat Management (includes exotic species, air quality, water quality, etc.)
- Research
- Compliance
- Outreach
- Partnerships

To the extent appropriate, each of these program areas will be discussed separately and within each, specific opportunities identified that, when implemented, will enable to park to meet its mandates (current and expected) as well as integrate NABCI into its planning and operations. With emphasis added, the park is not expected to implement any of these recommendations or be obligated to pursue any opportunity other than those the park is required to do by law or NPS program or policy. In other words, participation in this effort is currently voluntary. However, participation in these efforts at some level could become mandatory with the completion of an MOU with the FWS regarding EO 13186, **Responsibilities of Federal Agencies To Protect Migratory Birds**. The MOU will establish a formal agreement between the FWS and the NPS to promote bird conservation within the agency by incorporating goals and strategies of existing bird conservation initiatives, plans, and goals into park planning and operations.

Should the park decide to implement any of these projects, further consultation with bird conservation contacts is encouraged to obtain updated information on the relevance of these opportunities in regional bird conservation.

High priority projects are identified in **bold** print. Priorities that the park is encouraged to seek NPS funding for are marked with an asterisk (\*). These projects are those that are critical to the stabilization or improvement of a bird population in the planning region.

### **Compliance**

Park compliance with the Migratory Bird Treaty Act and the Executive Order 13186, **Responsibilities of Federal Agencies to Protect Migratory Birds**, is necessary to assure that park activities incorporate bird conservation into park planning and operations. Further, to ensure that migratory birds are considered in all phases of park planning processes, especially during the National Environmental Policy Act (NEPA) and the Director's Order #12 Compliance processes, the park should consider adding specific language in project evaluations that requires consideration and implications of park projects on migratory birds. The MOU being developed between the NPS and the FWS will likely contain specific language requiring a park to consider implications of park projects on migratory birds. Additionally, park staff is encouraged to:

- begin specific consideration of migratory birds during park planning processes

### **Outreach**

Because SAJU receives over 1.2 million visitors, excellent opportunities exist to inform park visitors about bird conservation. Bird conservation information could be presented at the visitor center on a trial basis to determine if outreach materials are being utilized by park visitors. Specific recommendations are to:

- **participate in International Migratory Bird Day (IMBD) events with a local partner (<http://birds.fws.gov/imbd.html>)\***
- **provide a brochure on the ways to personally contribute to bird conservation**
- **provide a checklist of Birds of Puerto Rico**
- **offer a Field Guide to Birds of Puerto Rico and US Virgin Islands**
- consider adding links to bird conservation information, data, etc. to the park's web site home page
- support bird conservation by serving shade-grown coffees at meetings, events, and the office buildings in the park (<http://www.americanbirding.org/programs/conssbcof3.htm>)

## **Contacts**

Primary contacts within the region can be obtained by viewing the web site for the Southeastern Bird Conservation Initiative, National Park Service at <http://southeast.fws.gov/birds/npsbirds.htm>. This web site will provide contact information of the appropriate bird conservation coordinator in the region for park personnel. Park staff are encouraged to view the web site and obtain contact information. Primary contacts for SAJU are:

Keith Watson  
US Fish and Wildlife Service  
Asheville, NC 28801  
828-350-8228  
[Keith\\_Watson@fws.gov](mailto:Keith_Watson@fws.gov)

### **South Florida/Caribbean (SF/C) Inventory & Monitoring Network**

Matt Patterson  
SF/C Network Coordinator  
National Park Service  
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[Matt\\_Patterson@nps.gov](mailto:Matt_Patterson@nps.gov)

US Fish and Wildlife Service  
Caribbean Refuge Complex Biologist  
Boqueron, PR

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