### Avian Conservation Planning in the Caribbean: Experience and Recommendations from the Dominican Republic<sup>1</sup>

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### Introduction

The Dominican Republic, on the island of Hispaniola, supports more bird species than any other Caribbean country except Cuba. More than 300 species of birds have been recorded in the country, including 285 native residents and 27 endemics (Keith et al. 2003). The Dominican Republic is also a major wintering site for Neotropical migrants. Despite this richness, the avifauna is perhaps the least studied in the Greater Antilles and is under increasing pressure from habitat alterations, hunting, trafficking of birds for the pet trade, pollution, and other effects of the human population. Although the Dominican Republic has set aside more than 16 percent of its territory in 40 protected areas for the benefit of wildlife (Ottenwalder 2000), many of these sites are effectively unprotected, and only a few have written management plans (Ottenwalder 2000). There are no management plans for individual threatened species or habitats.

In 1998 a broad-based, grassroots-oriented avian conservation-planning workshop was organized in the Dominican Republic to set priorities and coordinate planning efforts among researchers, managers, educators, activists, and politicians in the Caribbean nation. Avian conservation needs and priorities with respect to each of these disciplines were generated at the workshop. The design of the planning process, and the results of the avian conservation workshop, were previously described by Latta (2000) and Latta and Lorenzo (2000). Here we report, four years after the workshop, on the successes and failures of this planning effort, and make further recommendations for those planning similar coordinated strategies for avian conservation in developing nations.

## The 1998 Avian Conservation Workshop

The 1998 avian conservation workshop sought to meet five objectives: 1) increase communication and cooperation between all parties interested in avian conservation; 2) familiarize participants with resources pertinent to avian conservation that were already available; 3) increase communication between researchers and managers, especially to encourage the transfer of information from foreign to Dominican biologists; 4) promote the concepts of long-term avian monitoring, avian conservation plans, and species management plans; and 5) evaluate means by which ornithological research, environmental education, public policy, and land management can promote avian conservation and develop a strategy to promote the conservation of birds in the Dominican Republic.

### Working groups made the following recommendations

#### **Research and Monitoring**

Researchers called for the following actions: 1) additional field studies detailing the distribution, abundance, natural history, and habitat selection of all Hispaniolan birds; 2) immediate initiation of a national avian monitoring program; 3) specific studies on the effects of deforestation, other types of environmental degradation, and introduced species on bird populations; and 4) identification and prioritization of species and habitats requiring immediate attention. Because baseline data on population size, trends, and habitat loss did not exist, researchers used primarily personal experience and evaluations made by Birdlife International (draft reports which later appeared in BirdLife [2000]) in evaluating threatened species and habitats. Among birds, endangered endemic species demanded top priority. High elevation cloud forests and moist broadleaf forests were selected as priority habitats for attention.

### Management

Managers concluded that representative parcels of all major habitats were already protected by law but were unable to evaluate whether additional parcels of land required protection. Managers emphasized that basic data were lacking to make many management decisions and recommended that departments focus on small,

<sup>&</sup>lt;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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achievable goals until additional data and funds become available for larger projects.

#### Education

Educators sought a means to create a national culture that supports environmental protection. Toward this end they sought interdisciplinary actions to: 1) train community organizers in environmental education, focusing in particular on communities near protected areas; and 2) design and introduce a national curriculum on environmental education in general, and on birds in particular, in the public schools.

### **Public Policy**

The public policy group, citing the fragmentation of environmental responsibilities within the government, placed emphasis on creation of a comprehensive Wildlife Law and establishment of a Department of Environmental Impact Studies.

# Update: Four Years Later Research and Monitoring

Soon after the workshop, a plan was developed for the initiation of a long-term avian monitoring effort based on the North American Breeding Bird Survey (Robbins et al. 1986, Ralph et al. 1993) and the Breeding Bird Biology Research and Monitoring Database (BBIRD) protocols (Martin et al.1997). As a top priority of the researchers, the monitoring plan met with universal support, except from funding agencies that have appeared hesitant to involve themselves in monitoring or multi-year endeavors. Funds to implement this monitoring plan were sought each year since then. Only in 2002 were the beginnings of a monitoring program funded with limited monitoring taking place in the form of point counts and constant effort mistnetting in four national parks, and nest monitoring initiated in one park. Significantly, Dominicans are intimately involved in the planning and execution of these monitoring efforts. However, almost all new research initiatives continue to come from foreign biologists, including the University of Missouri, Vermont Institute of Natural Science, and Cornell University, which has recently developed a Biodiversity Lab at Punta Cana.

### Management

Little progress seems to have been made in terms of management issues, with the significant exception that in the past year the government, with the help and encouragement of the ornithological community, has focused considerable resources on infrastructure development in Sierra de Bahoruco National Park and parks of the

Cordillera Central, a priority emphasized by workshop participants. However, this has occurred without management plans in place despite recommendations to first develop such plans. Conservationists were given a significant boost in late 2002 when the United Nations recognized the biological uniqueness of several protected areas with the creation of a new UNESCO Biosphere Reserve (UNESCO 2002). The Jaragua-Bahoruco-Enriquillo Biosphere Reserve covers almost 500,000 hectares of a complex mosaic of habitats, ranging from the unique Enriquillo Lake lying 40 m below sea level, through the lagoons and coastal habitats of Jaragua National Park, to the montane mixed-pine and broadleaf forests and cloud forests of the Sierra de Bahoruco. This first biosphere reserve on the island reflects international and, perhaps more importantly, national recognition of the unique nature of the site, and the responsibility to steward the reserve for sustainability. It is hoped that United Nations' recognition of the Jaragua-Bahoruco-Enriquillo Biosphere Reserve will help secure funding to develop management plans and infrastructure, and promote tourism and the local economies.

### Education

Fundación PROGRESSIO and The Nature Conservancy obtained funding for the establishment of a national training center and the development of a comprehensive training program in environmental education and avian monitoring techniques at Ebano Verde, but this project seems to have collapsed due to institutional failures. A working group also began meeting to begin the work of designing an environmental education curriculum but this, too, seemed to have not survived. A photographic guide to common birds of the Dominican Republic (Latta 2002) has been completed by members of the re-organized Sociedad Ornitológica de Hispaniola (SOH) and will be distributed to schools and public institutions. A scholarship fund for graduate training of promising ornithologists has been started with leadership coming from the Vermont Institute of Natural Science.

### **Public Policy**

A working group met to begin to draft a new, comprehensive wildlife law that would regulate everything associated with wildlife management and help ensure the independence of the wildlife department, but this activity seems to have been overtaken by larger political events. Although not a result of the workshop recommendations, the National Parks Directorate and the Department of Wildlife have been consolidated and function under an appointed Secretary of the Environment for the first time. The new Secretary has been proactive in support of conservation issues, thereby emphasizing the importance of larger political issues in determining conservation priorities, successes, and failures.

In summary, over the past four years, progress has been made as the result of the avian conservation-planning workshop, but this progress has been limited and slower than expected. Despite many initial cooperative efforts, few of these have gone forward. Significant exceptions include the SOH coordination with the Secretary of the Environment in infrastructural improvements in the Sierra de Bahoruco and Cordillera Central and coordination among several non-governmental agencies (NGOs) and foreign ornithologists in monitoring efforts. There is a general consensus among conservationists that the conservation workshop served as an important stimulus for a number of small groups and for quite a few new people to become involved in conservation issues. But the workshop has not spawned the level of cooperation among NGOs or between NGOs and the government that the organizers anticipated. This may be due to a combination of 1) a general lack of respect for government institutions and personnel, and a perception that the government 'does nothing'; 2) a perception that the government provides little direction or aid to NGOs; 3) a corresponding perception by government personnel that the NGOs do not approach them with research or management projects or concerns; and 4) a strong tradition of division among NGOs in terms of conservation priorities and areas of practice. Nevertheless, conservationists from NGOs and the government in the Dominican Republic persist in their activities with the knowledge that change sometimes comes slowly and that some ideas must be repeatedly brought forward in many arenas and over a long period of time before they are ultimately successful.

### Recommendations

Here we offer our top ten recommendations for comprehensive avian conservation planning based on our experience in organizing a grassroots-oriented planning workshop and follow-up conservation efforts in the Dominican Republic.

- Plan sufficient lead time when developing a planning workshop, both for organizational aspects and for collection and dissemination of preparatory materials. Remember that this project will not be everyone's top priority even if they are supportive.
- 2) Begin the planning process with as broad a coalition as possible. Be aware of key players, especially those who may have ownership issues around avian management and conservation, and include them early in the planning efforts. Also be sure to include sectors of the natural resource community that may not be traditionally thought of as conservationists (i.e. hunters) as they often need to be part of the solution.
- Questionnaires can be a very useful organizing tool, but remember they also require extensive follow-up.

- 4) Allow participating organizations in planning and conservation efforts to contribute in a way and a form in which they feel most comfortable. Take advantage of skills and services available through your network. This reduces costs and helps insure broader ownership of the planning and conservation process.
- 5) Recognize that you may possess less-than-adequate scientific knowledge, but don't let it freeze all progress. Use the current level of knowledge as a base from which to build research and management strategies as well as educational efforts.
- 6) While prioritization of conservation needs will be recognized by funding agencies, it does not guarantee immediate funding. Be persistent and creative in your efforts to fund projects that will increase your knowledge base and grow your conservation programs.
- Special efforts may be needed to break down impediments to coordinated actions between government departments and NGOs.
- 8) A lack of graduate-trained ornithologists in the government departments with management responsibilities, and in NGOs, may be an impediment to some conservation practices, but it can be addressed with increased emphasis on collaborative training programs and support for scholarship funds.
- 9) Personal and organizational poverty is a strong barrier to effective organizing and can be partially addressed by institutional grants from funding agencies and support for permanent or long-term staff positions within NGOs.
- 10) A long history of suppression of grassroots organizing (at least in the Dominican Republic) has resulted in a poverty of organizing capabilities and continues to affect the success of NGOs involved in environmental education and conservation. Training in community organizing and environmental advocacy skills would be useful.

### **Acknowledgments**

Steven Latta's work on Hispaniola has been supported by the American Bird Conservancy, Association of Avian Veterinarians, National Fish and Wildlife Foundation, National Geographic Society, University of Missouri Research Board, USDA Forest Service North-Central Forest Experiment Station, U.S. Environmental Protection Agency, and the Wildlife Conservation Society. T. D. Rich, K. Wallace, and members of the Sociedad Ornitológica de Hispaniola provided comments on previous drafts of the manuscript.

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