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### ISLAND TREASURES: AVIAN RESEARCH AND CONSERVATION IN THE CARIBBEAN

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#### ISLAND TREASURES: AVIAN RESEARCH AND CONSERVATION IN THE CARIBBEAN

#### — INTRODUCTION —

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OVER THE PAST 10 YEARS, increased conservation awareness has transpired in several Caribbean islands. This heightened awareness has in turn, nurtured ornithological research and conservation efforts throughout the region. These efforts, however, are poorly known outside the region itself. This symposium will synthesize current ornithological research and conservation activities in the Caribbean region. Several case studies will be presented in the Symposium. Similarities and differences in conservation approaches will be highlighted. Each presentation will address avian conservation threats, research priorities, and solutions. The discussion of these key case studies will illustrate the research and conservation priorities for the region, and help integrate these largely island efforts into those of the larger North American ornithological community.

Before proceeding to the selected case studies, I would like to introduce the avifauna of the Caribbean region and discuss its conservation significance.

Five hundred and sixty-four bird species occur in the West Indies (Raffaele *et al.* 1998). This geographic area includes the Bahamas, Greater Antil-

les, Virgin Islands, Cayman Islands, Lesser Antilles, Isla San Andrés and Isla Providencia. The Caribbean region ranks sixth among the top 25 biodiversity hotspots in the world (Conservation International 2002). The West Indies has a human population of about 2.5 million. It covers a geographic area of 280,000 km<sup>2</sup> or a land area roughly equivalent in size to the state of Arizona. Politically, the West Indies is composed of 12 independent nations and several British, Dutch, French, and United States territories.

Much of the islands' avifauna is unique, with 148 endemic species recorded (21%) among its 564 species (Raffaele *et al.* 1998). The third largest island (in size) of the West Indies, Jamaica, exhibits the highest level of endemism (28 species), followed by Cuba (25 species), Hispaniola (23 species), and Puerto Rico (14 species; David Wege, pers. comm.). The Lesser Antillean islands have seven endemic genera unique to the Caribbean. Lastly, the West Indies are not only important for their high avian endemism but they play a critical role as habitats for the 120 species that migrate during fall and winter from North America. For example, the avifauna of Jamaica doubles to over 250+ bird species during migration.

According to BirdLife International (David Wege, pers. comm.) and the IUCN (2000) Red Data List, the West Indies are home to 57 globally threatened bird species and 11 of these species are ranked as critically threatened. These critically threatened species include Cuban Kite (*Chondrohierax uncinatus wilsoni*), Ivory-billed Woodpecker (*Campephilus principalis*), Bachman's Warbler (*Vermivora bachmanii*), Ridgway's Hawk (*Buteo ridgwayi*), Jamaican Petrel (*Pterodroma caribbaea*), Jamaican Poorwill (*Siphonorhis americanus*), Puerto Rican Parrot (*Amazona vittata*), Puerto Rican Nightjar (*Caprimulgus rufus*), Grenada Dove (*Leptotila wellsi*), Sempser's Warbler (*Leucopezza semperi*), and Montserrat Oriole (*Icterus oberi*). Collaborative efforts and partnerships will be needed for conservation of these threatened species because 25 of these 57 globally threatened species occur in more than one country. One of the symposium papers will highlight regional research and conservation efforts for the West Indian Whistling Duck (*Dendrocygna arborea*). IUCN lists the status of this species as vulnerable.

Major conservation threats to birds in the West Indies include habitat loss and degradation; introduced species, especially predators such as mongoose, cats, raccoons, and rats; unsustainable use from hunting and pet trade; and chemical pollution. Although these threats are common to birds globally, their effects are exacerbated on islands, where species' ranges and habitats are limited in size and distribution. Tourism and agriculture are the primary forces in island development and significantly impact avian habitats. According to the World Tourism Organization's (2002) statistics for the year 2000, 17+ million travelers visited the Caribbean and tourism grew at an average annual rate of 3.5% from 1995 to 1999. The island with the highest number of endemic species, Jamaica, attracted 1.3 million visitors, whereas the next island with high endemism, Cuba, had a annual tourism growth rate of 20% with 1.7 million tourists visiting. Tourism and agriculture to feed residents and tourists place ever increasing demands on an island's natural resources, notably land and, as a result, Caribbean islands have lost much of their primary forest and wetlands habitats to development and agriculture. World Wildlife Fund estimates that Cuba has 15–20% of its land remaining in its natural state, whereas the Dominican Republic has 10% remaining.

The Society for the Conservation and Study of Caribbean Birds (SCSCB) conducted a workshop at its 1998 annual meeting in Guadeloupe to determine conservation needs and priorities for the Caribbean Region. SCSCB identified training and capacity building as the greatest conservation need in the region. SCSCB recognizes that research agendas and conservation priorities for the West Indies need to be locally driven and implemented, with conservation solutions needing strong local participation to succeed in the long-term. Other needs are responsible tourism and sustainable development, research and conservation partnerships, environmental education and outreach, exchange of scientific data and information, and heightened conservation awareness of the public and decision makers. SCSCB has initiated efforts to address these needs both locally ("on island") and regionally ("all islands"). For example, SCSCB's annual "Caribbean Endemic Bird Day" heightens awareness for birds and their habitats throughout the region while each island customizes the event's activities for its island culture. Several of the Symposium presentations will discuss these needs and demonstrate practical solutions.

Lastly, as Organizer and Chair for this *Island Treasures* symposium, I am pleased to introduce these case studies. They clearly show the diversity of current research and conservation projects in the Caribbean region. Noteworthy is the strong participation of Caribbean Nationals in this historic symposium.

#### LITERATURE CITED

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