THE WEST INDIAN WHISTLING-DUCK AND WETLANDS CONSERVATION PROJECT: A MODEL FOR SPECIES AND WETLANDS CONSERVATION AND EDUCATION

LISA G. SORENSON[1], PATRICIA E. BRADLEY[2], AND ANN HAYNES SUTTON[3]

[1]*Department of Biology, 5 Cummington St., Boston University, Boston, MA 02215, USA*; [2]*PO Box 907 GT, Grand Cayman, Cayman Islands, BWI*; and [3]*Marshall's Pen, PO Box 58, Mandeville, Jamaica*

Abstract.—The West Indian Whistling-Duck Working Group of the Society for the Conservation and Study of Caribbean Birds seeks to reverse the decline of the globally threatened whistling-duck and the continuing loss of wetlands throughout the Caribbean. Using our new resource book, *Wondrous West Indian wetlands: teachers' resource book,* and other outreach materials, we hold Wetlands Education Workshops for teachers and natural resource personnel to provide them with training and educational tools to raise awareness of and appreciation for the values of local wetlands. We also promote the development of *Watchable Wildlife Ponds*, accessible wetlands which are managed for interpretation to schoolchildren, local residents, and eco-tourists. Responses on evaluations and a "before and after" wetland quiz show that the workshops are highly effective in changing attitudes and perceptions about wetlands and that participants leave the workshops with the knowledge, skills, and tools they need to teach and inspire others. Other project outcomes include increased protection for WIWDs and their habitats, stable and/or increasing populations on several islands, and greater community involvement in wetlands conservation. Factors contributing to the project's success include strong leadership, thousands of hours of donated work by many creative and committed individuals, successful fundraising, use of a flagship species, local empowerment, political involvement, and the regional nature of the project. We thank the many individuals, agencies, and organizations that have provided funding and donated their time and talents to the project.

Key words: *Caribbean*, Dendrocygna arborea, *flagship species*, *public education and awareness*, *threatened species*, *West Indian Whistling-Duck*, *West Indies*, *wetlands conservation*, *wetlands education*

Resumen.—EL PROYECTO DE CONSERVACIÓN DEL PATO SILBADOR CARIBEÑO Y LOS HUMEDALES: UN MODELO PARA LA CONSERVACIÓN Y LA EDUCACIÓN DIRIGIDA A LAS ESPECIES Y LOS HUMEDALES. El grupo de trabajo del Pato Silbador Caribeño, de la Sociedad para la Conservación y el Estudio de las Aves Caribeñas, intenta dar marcha atrás al declive de esta globalmente amenazada ave y la constante pérdida de humedales a través del Caribe. Usando nuestro nuevo libro *Maravillosos humedales de las Indias Occidentales: libro de recursos para maestros (Wondrous West Indian wetlands: teachers' resource book)* y otros recursos de sensibilización, efectuamos Talleres de Educación sobre los Humedales (Wetlands Education Workshops) para maestros y personal de recursos naturales que les proveen la capacitación y las herramientas educativas necesarias para crear conciencia sobre los valores de los humedales locales y fomentar su aprecio. También promovemos el desarrollo de *Charcas donde ver Vida Silvestre* (Watcheable Wildlife Ponds), humedales accesibles que se gestionan para la interpretación dirigida a escolares, residentes locales y ecoturistas. Las respuestas obtenidas en evaluaciones y exámenes sobre conocimiento previo y actual indican que los talleres son altamente eficaces en cambiar actitudes y opiniones sobre los humedales y que los participantes concluyen los talleres con el conocimiento, las habilidades y las herramientas que necesitan para enseñar e inspirar a otros. Otros resultados del proyecto incluyen mejoras en la protección del Pato Silbador Caribeño y su hábitat, poblaciones estables o en aumento en varias islas, y mayor participación de la comunidad en la conservación de los humedales. Los factores que contribuyen al éxito del proyecto incluyen el liderazgo firme, las miles de horas de trabajo donadas por muchos individuos creativos y dedicados, la captación de fondos acertada, el uso de una especie bandera, la autogestión local, la participación política, y la naturaleza regional del proyecto. Agradecemos los muchos individuos, agencias y organizaciones que han proporcionado financiamiento y/o han donado su tiempo y talentos al proyecto.

Palabras clave: *Caribe*, *conservación de humedales*, Dendrocygna arborea, *educación sobre humedales*, *educación y sensibilización pública*, *especie bandera*, *especies amenazadas*, *Indias Occidentales*, *Pato Silbador Caribeño*

Résumé.—LE DENDROCYGNE DES ANTILLES ET LE PROJET WETLANDS CONSERVATION: UN MODÈLE POUR LA CONSERVATION DES ESPÈCES ET DES ZONES HUMIDES ET POUR L'ÉDUCATION. Le groupe de travail sur le Dendrocygne des Antilles de l'Association pour la protection et l'étude des oiseaux de la Caraïbe cherche à renverser la tendance au déclin de cette espèce globalement menacée ainsi que la perte continue des zones humides à travers la caraïbe. En utilisant notre nouvel ouvrage *West Indian wetlands: livre de référence pour les enseignants* et d'autres matériels adaptés, nous organisons des ateliers de travail d'éducation sur les zones humides pour les enseignants et le personnel travaillant sur les ressources naturelles afin de leur fournir les outils d'éducation et de formation permettant d'augmenter la prise de conscience et la compréhension de la valeur des zones humides locales. Nous sou-

tenons aussi le développement d'*Etangs d'observation de la vie sauvage*, zones humides accessibles gérées pour l'accueil des écoliers, résidents locaux et écotouristes. Les réponses aux questionnaires d'évaluation et à un quiz sur les zones humides «*avant et après*» montrent que les ateliers sont très efficace pour changer les perceptions et les attitudes sur les zones humides et que les participants quittent les ateliers avec les connaissances, compétences et les outils utile pour enseigner ou inspirer le public. Les autres produits du projet concernent l'amélioration de la protection du Dendrocygne des Antilles et des ses habitats, la stabilisation et/ou l'augmentation des populations sur certaines îles et une plus forte implication des communautés locales dans la conservation des zones humides. Les facteurs de succès du projet impliquent un fort leadership, des milliers d'heures de travail bénévole par de nombreux individus motivés et imaginatifs, l'utilisation réussie d'une espèce locale emblématique pour soulever des financements, l'emploi local, l'implication politique et la nature régionale du projet. Nous remercions les nombreuses personnes, agences et organisations qui ont financé et/ou donné du temps et du talent à ce projet.

Mots-clés: *Antilles*, *Caraïbe*, *conservation des zones humides*, Dendrocygna arborea, *Dendrocygne des Antilles*, *éducation et sensibilisation du public*, *éducation sur les zones humides*, *espèce drapeau*, *espèces menacées*

INTRODUCTION AND BACKGROUND

RESTRICTED TO THE northern West Indies, the West Indian Whistling-Duck (WIWD) is among the rarest ducks in the Americas. The species also has proved to be an excellent flagship for wetlands conservation — as the WIWD Working Group of the Society for the Conservation and Study of Caribbean Birds (SCSCB) has demonstrated.

To reverse the decline of the globally threatened WIWD (BirdLife International 2000) and the continuing loss of wetlands throughout the region, the WIWD and Wetlands Conservation Project was launched in 1997 by the WIWD Working Group of the SCSCB. With initial funding from the US Fish and Wildlife Service, Ducks Unlimited Canada, and the American Bird Conservancy, this region-wide public education and awareness program provides local teachers and educators with training and educational tools and works to raise awareness of and appreciation for the value of local wetlands. A principle product of the project, *Wondrous West Indian wetlands: teachers' resource book* (Sutton *et al*. 2001), is a 276-page teacher's manual containing comprehensive background information and educational activities relating to the ecology and conservation of Caribbean wetlands. The book is being distributed in conjunction with Wetlands Education Workshops throughout the region. Companion materials include a WIWD slide show, puppet show, poster, coloring book, conservation buttons, postcard, field trip notebook, and a duck identification card for hunters. Sharing similar outreach and habitat conservation goals, the WIWD Working Group has now partnered with BirdLife International's Caribbean-wide conservation program. Working with BirdLife Partners and local environmental non-government organizations (NGOs) throughout the region, the WIWD Working Group continues to develop its programs with funding and in-kind support from several sponsors (see Acknowledgments).

To date, the project has hosted two-day workshops on the use of the new workbook in the Bahamas, Cuba, Trinidad and Tobago, Antigua and Barbuda, and, most recently, Jamaica. Day one of each workshop is spent "in the classroom" learning about wetland ecology, the ways in which wetlands safeguard human health and benefit society, the consequences of wetland degradation and destruction, and alternatives to unsustainable use. Concepts and teaching-interpretation techniques are conveyed through presentations and interactive demonstrations, peer-teaching, games, and role-playing activities (Fig. 1). All of these activities are included in the teacher's resource book, such that workshop participants can incorporate the same activities and approaches in their own classrooms, field trips, or other public education events. Day two is a field trip to a local wetland(s) to learn bird and mangrove identification, and to sample the field activities from the workbook (e.g., honing of observation skills,

Fig. 1. A musical presentation of "Away with Waste" (Activity 4-M in *Wondrous West Indian wetlands*) at the Wetlands Education Workshop in Nassau (January 2003).

Fig. 2. Birding at sewage lagoons in Greater Portmore during the wetlands field trip portion of the Wetlands Education Workshop in Kingston, Jamaica (10–11 June 2003).

quadrat sampling, line transects, wetland assessment; Fig. 2). With the Spanish version of the book now available (July 2003) and a French translation underway, additional workshops are planned for the Dominican Republic, Puerto Rico, Cuba, Haiti, Cayman Islands, Turks and Caicos Islands, US and British Virgin Islands, and St. Vincent and the Grenadines. Five "workshop kits" — rolling suitcases containing all the supplies needed to carry out the activities in the workbook — have been completed, and four kits have been distributed and are in use.

Another major activity of the project is the development of *Watchable Wildlife Ponds*, accessible wetland areas which are managed for interpretation to schoolchildren, local residents, and eco-tourists. Watchable Wildlife Ponds serve as centers for wetlands education and help to promote the conservation of wetlands. Large, beautiful, and easy to watch, West Indian Whistling-Ducks can be prime attractions at such areas. A demonstration project has already proved successful in the Cayman Islands. Watchable Wildlife Ponds are under development in the Bahamas, Jamaica, Antigua, and the Dominican Republic.

To identify important wetland habitats for protection and promote local conservation legislation, surveys of WIWDs are being conducted on several islands, a training workshop on survey and monitoring techniques has been held, and a manual (standard protocol) for WIWD population monitoring is in preparation.

The project's mission, history, materials, activities, and workshops have been described in detail in several previous publications (Sorenson 1997; Sorenson and Bradley 1998, 2000, 2002; Sorenson and Carey 1998; Sorenson and Hunter 2002). Here, we report on project evaluation and outcomes, and discuss the factors that we believe have contributed to the project's success.

PROJECT EVALUATION

A total of 502 people has attended 14 two-day wetlands workshops in six countries; 90 attended workshops held in the Bahamas and the Dominican Republic before the publication of *Wondrous West Indian wetlands*, whereas 412 have attended 12 workshops held in four countries after the publication of the book.

We have assessed the quality and effectiveness of our materials and workshops through evaluations and a wetlands quiz. Workshop participants are asked to fill out a detailed evaluation form for both the classroom and field trip portions of the workshop. These evaluations provide us with information on which aspects of the workshop were most valuable and enjoyable, which activities will work best with students, topics on which participants would like more information and training, whether the book and field trip notebook were adequately covered and easy to use, how the workshops could be improved, and a rating of the overall quality of the workshop. This feedback has enabled us to continually revise and improve the classroom and field trip agendas and materials.

An overall workshop rating of "excellent" by most participants, as well as many positive comments, suggests that the book and workshops have been highly effective in changing attitudes and perceptions about wetlands and increasing awareness and appreciation of their importance and values.

Fig. 3. One of the rarest ducks in the Americas—West Indian Whistling-Ducks at the Negril Royal Palm Reserve in western Jamaica. The female on the left is laying eggs (note the "pregnant" profile).

The workshops also provide participants with the knowledge, skills, and tools that they need to teach and inspire others, analyze environmental issues and make better decisions about wetland use, and lead and/or participate in grassroots efforts to conserve local wetlands. Sample comments from our recent series of workshops in Jamaica (June 2003) and the Bahamas (January 2003) summarize the views of many participants:

> *This wetland workshop was a very interesting experience for me. Prior to the workshop I viewed wetlands as murky, stagnant, mosquito-infested areas to be avoided. Now I am fully aware of their importance to the environment.*
>
> *As a facilitator, I shall return to my community a more knowledgeable person, and better able to disseminate information.*
>
> *The activities were very interesting and helped tremendously to highlight essential concepts. Activities would be very suitable for class sessions, especially pour-a-pond.*
>
> *Very, very educational workshop and an effective way to start protecting, managing, and sustaining our wetlands.*

Workshop participants also complete a two-page *Wetland Quiz* — they actually complete it twice, once during the arrival and registration period on the first day of the workshop and again at the end of the second day following the field trip. The "before" quiz provides us with a measure of each participants' level of knowledge and attitudes and perceptions about wetlands before the workshop, enabling us to adjust what we cover and emphasize over the two days. The "after" quiz measures what and how much the participants learned during the two days, providing us with feedback on how successful we were at conveying essential concepts and information on wetlands. The participant's quiz is anonymous (participants put their name-tag number on the quiz instead of their name) which helps to lessen test anxiety. To date, all participants have been good sports about being subjected to this "pop quiz" (now they know how their students feel!).

An analysis of the quizzes from the Bahamas workshops (January 2003) showed that participants significantly increased their knowledge of wetlands after attending the two-day workshop. Participants scored an average of 49% correct answers on the "before" quiz and 79% correct answers on the "after" quiz ($n = 34$, $t = 10.6$, $P < 0.0001$).

Participants also gain increased confidence in both communicating wetland concepts and leading wetland field trips. Before the workshop, 76% said they were "a bit uncomfortable" or "not comfortable at all" in communicating wetland concepts, whereas after the workshop, 3% were uncomfortable, and 97% were "very comfortable" or "fairly comfortable." Similarly, before the workshop, 69% said they were "a bit uncomfortable" or "not comfortable at all" in leading wetland field trips, whereas after the workshop, 7% were uncomfortable, and 93% were "very comfortable" or "fairly comfortable."

PROJECT OUTCOMES

Stable and Increasing WIWD Populations

West Indian Whistling-Ducks rely on freshwater, brackish, and marine wetlands. Their numbers have declined throughout the region because of destruction and degradation of these wetlands and overhunting. WIWDs are resilient, however, and have proved capable of recovering if they and their habitats are protected. Surveys have shown that populations in the Cayman Islands, Cuba, and Jamaica are now stable or increasing. For example, WIWD populations have recovered in the Negril Royal Palm Reserve in western Jamaica; no ducks were present during a survey in 1986, but following protection of the site in the 1990s and enforcement of hunting laws, the population may now be as many as 70 individuals (Sutton, unpub. data; Fig. 3).

Increased Species and Habitat Protection

Increased awareness of the duck's globally threatened status resulted in its removal from Cuba's game bird list in 1997. Surveys documenting the presence of sizable WIWD populations in the Birama Swamp and the Rio Máximo Fauna Refuge in

Fig. 4. From the land to the sea — teachers try out the line-transect plant sampling technique during the wetlands field trip in Antigua to Great Bird Island (November 2002).

Cuba contributed to the declaration of these wetlands as Ramsar sites (L. Mugica, pers. comm.). Similarly, surveys in Jamaica's Lower Black River Morass showing the presence of WIWDs helped in the decision to designate this wetland as the country's first Ramsar site.

The development and management of wetlands as *Watchable Wildlife Ponds* provides protection of key wetlands and WIWD populations and encourages long-term sustainable use of wetlands. The first Watchable Wildlife Pond in the Cayman Islands (Malportas Pond) is a prime tourist attraction. Several hundred WIWDs are often present with up to 400 Blue-winged Teal (*Anas discors*) and 15 other species of waterbirds (ducks, rails, herons, and waders). A project funded by a United Kingdom Foreign and Commonwealth Office environmental fund grant on Little Cayman has allowed the construction of viewing platforms and interpretive signs on 10 major WIWD pond habitats, which are now used as educational and tourist resources. Ideal locations (i.e., accessible wetlands that contain a large diversity of resident and migratory birds and that are close to population centers) for the development of Watchable Wildlife Ponds in the Bahamas, Dominican Republic, Jamaica, Haiti, and Antigua have been identified and plans are underway to begin work at several of these sites to enhance their value for education and eco-tourism.

Multiplier Effect

Because children are the future decision-makers and voting citizens, the project strives to increase knowledge and awareness of wetland functions and values especially in children, and instill in them a sense of caring, pride, and confidence as stewards of the environment, qualities that they will carry into adulthood. Activities in the workbook are geared towards children of all ages and are designed to spark the imagination and inspire independent learning. Our strategy of using intensive workshops to train enthusiastic teachers and environmental government and NGO personnel, who in turn, will teach children and train others in the use of the materials, is the most effective means of reaching a large number of persons with a conservation message.

The Bahamas National Trust (BNT) has begun to hold its own training workshops for teachers, using the workshop kit provided by the project. BNT staff, creators of our *Wetlands are Wild* puppet show, have performed the puppet show for over 6000 schoolchildren on several different islands. The Adventure Learning Centre in New Providence is using the workbook as the basis of their summer camp program. In the Cayman Islands, the government has appointed M. Keeley as Wetlands Coordinator. He delivers wetland lessons and field trips to school classes (ages 8 to 11). Lourdes Mugica Valdéz has organized a network of collaborators and institutions in seven provinces to implement the education and awareness program in Cuba; more than 35,000 people, mainly children, have benefited and learned from the materials and activities organized by the program.

The "multiplier effect" is also becoming evident in Jamaica. Following their attendance at the June 2003 wetland workshops, several agencies and projects (e.g., Ridge to Reef Watershed Project's Summer Youth Conference, Institute of Jamaica's Natural History Division, National Environment and Planning Agency, and Caribbean Coastal Area Management Foundation) will use the workbook and workshop kit for summer camp programs. We are also working on incorporating the workbook into school curricula throughout the region. Jamaica Environmental Trust (JET) has indicated their interest in using a wetlands conservation theme and *Wondrous West Indian wetlands* in its 2003–2004 "Schools for the Environment Programme." JET expects to reach 400 schools and the project will train teachers in 12 workshops during the coming school year (Fig. 4).

The distribution of our other project materials (e.g., slide show, puppet show, duck identification card for hunters) as well as equipment (e.g., binoculars, slide projectors, video cameras) has further enhanced the multiplier effect and outreach efforts of many local NGOs, agencies, schools, and individuals. Articles in local newspapers and other print media (e.g., Haynes-Sutton 1996, 1998), radio interviews, and the SCSCB's Caribbean Endemic Bird Festival all help to publicize the WIWD's threatened status, and the project's mission to raise awareness and encourage sustainable wetland use. The project website (www.whistlingduck.org) is under development and will provide access to comprehensive and downloadable information and teaching materials on Caribbean wetlands.

Greater Community Involvement in Wetlands Conservation

We are beginning to witness the unique ways that the project can lead to local community empowerment and positive change. For example, following the workshops and wetland field trips for teachers in Antigua and Barbuda (November 2002), participants commented on how they have a new apprecia-

tion for the importance of wetlands and that they will no longer remain silent when a local wetland is under threat of development (as was the case in the recent past). Two teachers have initiated a WIWD survey and monitoring project with their students, and a local tourist resort operator, upon learning about the project, jumped at the opportunity to work with the WIWD Working Group to restore and enhance his wetland for birding and nature tourism (i. e., create a Watchable Wildlife Pond). He has begun work on this with the local NGO, the Environmental Awareness Group. Citizens in the Bahamas, Dominican Republic, Jamaica, and Haiti will be involved in the development of Watchable Wildlife Ponds in their communities and will form Wetland Site Support Groups, volunteers working together to manage and promote the conservation of their site. These groups will be networked through BirdLife's Important Bird Area program.

Festivals involving all the people in a community are very popular in small towns and rural areas of the Cuban countryside. They bring the people of a municipality together to eat, drink, view artwork and exhibits, buy and sell local handmade crafts, and socialize. Highly successful WIWD festivals have already been held in one municipality participating in the education program. Following the wetlands education workshops in these areas, *Celebrate Wetlands!* festivals are planned for the communities in Los Palacios in Pinar del Río province (near the rice culture and coastal areas) and the coastal wetlands in the south of Sancti Spíritus province. Both wetlands are important for endemic and migratory birds and Lourdes Mugica and colleagues are currently conducting ecological research in these areas. Both wetlands are also associated with huge rice plantations; all the water from the culture (including the chemicals used for the rice) flowing to the wetlands. The festivals will be a celebration of the nearby wetlands upon which the communities depend. They will include wetland tours and bird walks, a photographic exhibition, talks, t-shirts and posters about the value of wetlands and their biodiversity, and displays of artwork, poetry, stories, and songs about wetlands by schoolchildren participating in the program.

FACTORS CONTRIBUTING TO THE PROJECT'S SUCCESS

Strong Leadership.—Leaders who establish clearly defined goals and have the ability to motivate and inspire participation have been essential for project success. The WIWD Working Group co-chairs (Sorenson and Bradley) and Project Coordinator (Sorenson) have provided strong leadership and had excellent success at raising funds for the project. They have also coordinated communications, liaised with contacts in each Caribbean country, recruited new participants, and organized project activities and materials development, facilitated workshops, encouraged the island committees, and kept the network continuously active and motivated.

In-kind Contributions.—*Thousands* of hours of work have been donated by Working Group leaders and members throughout the region in committees, agencies, and environmental NGOs. These individuals, from many nations, are all highly motivated, talented, and creative people who donate their skills, talents, time, and gifts to the project. Their knowledge and expertise are reflected in the superb quality of our outreach materials and workshops.

Successful Fundraising.—Successful proposals require good writing skills and the ability to present the objectives and achievements of the group in the best light, highlighting the project's regional scope and cooperative nature. We are very grateful to the agencies that have supported our mission and given us the opportunity to achieve our project goals. We have used the substantial amount of in-kind work as matching funds in some proposals, thereby substantially increasing the amount of funds awarded.

A Unique Caribbean-wide Project.—The project uses a flagship species, an elegant duck, to which people can relate, and which is clearly associated with the ecosystem to be conserved; i.e., a joint species-ecosystem approach. As the project has grown and other countries which do not have the WIWD have asked to be included, the WIWD Working Group has shown flexibility in responding to local needs by moving the focus from WIWD conservation to wetlands conservation, thus widening the circle of membership and reaching more people.

Empowerment.—The island committees, where active, are empowered to take possession of the project and own it. They can then expand and modify it to suit their own local needs and expectations (e.g., the Bahamas and Cuba). Wetland workshops continue to increase this ability by giving teachers excellent outreach materials and the skills to present and use them.

Political Involvement.—The project has had most success in countries where politicians have been involved in the decision to accept the WIWD Working Group into the country. Whereas there is an advantage to politicians in a successful project in

terms of votes, the Working Group has benefited by having access to Education Department authorities, thus ensuring that teachers are released to attend workshops and publicity is nationwide. This is leading to the incorporation of the wetlands book into curricula, our ultimate aim if wetlands education is to continue in the long term.

Truly Regional.—With the translation of materials into Spanish and French, especially the new language editions of the workbook, the project will be ready to deliver workshops throughout the Caribbean.

ACKNOWLEDGMENTS

This project has been carried out with financial support from the US Fish and Wildlife Service Division of International Conservation, US Fish and Wildlife Service Neotropical Migratory Bird Conservation Act Fund, American Bird Conservancy, Ducks Unlimited Canada, Royal Society for the Protection of Birds, and the Dutch Ministry of Foreign Affairs (DGIS) under the Partners for Wise Use of Wetlands Programme, managed by Wetlands International.

We are especially grateful for the personal interest and support from senior executives in the major governmental and non-governmental organizations who recognized the potential of this ambitious project and provided initial and continued funding and support, including Herb Raffaele, Frank Rivera, and Gilberto Cintron, USFWS; Jim Stevenson, RSPB; Stewart Morrison, Ducks Unlimited Canada; Michael Parr and Robert Chipley, American Bird Conservancy; Bob Laidler, Oak Hammock Marsh Interpretive Centre; and David Wege, BirdLife International).

A broad partnership of cooperating agencies and organizations has provided generous in-kind support and other contributions to the project. This partnership includes: Abaco Outback, Adventure Learning Center (New Providence, Bahamas), American Birding Association, Andros Conservancy and Trust, Avian Eyes (St. Vincent and the Grenadines), Bahamas National Trust, Bahamas Reef Environment Educational Foundation, Bird Ecology Group of Universidad de La Habana, Birdlife Jamaica, Birdlife International, Boston University, British High Commission (Jamaica), British Virgin Islands National Parks Trust, Caribbean Coastal Area Management Foundation, Department of Natural Resources and Environmental Education Division in Tobago, Ducks Unlimited Canada, Ducks Unlimited, Inc., Environment Tobago, Environmental Awareness Group of Antigua and Barbuda, Friends of the Environment (Abaco), Grupo Jaragua, Hispaniola Ornithological Society, Institute of Ecology and Systematics, Institute of Jamaica (Natural History Division), Jamaica Environmental Trust, Ministry of Environment (Trinidad), Montego Bay Marine Park, Negril Environment Protection Trust, National Environment and Planning Agency, National Trust of the Cayman Islands, National Trust of the Turks and Caicos Islands, Oak Hammock Marsh Interpretive Centre, Pointe-a-Pierre Wildfowl and Wetlands Trust, Portland Environment Protection Association, Puerto Rican Ornithological Society, St. Ann Environment Protection Association, RARE Centre for Tropical Conservation, Ridge to Reef Watershed Project, Royal Society for the Protection of Birds, The Nature Conservancy Jamaica, UNEP Caribbean Environment Program, United Kingdom Foreign and Commonwealth Office. If we have inadvertently omitted you from this list, please let us know, and accept our apologies!

We are grateful to the Executive of the SCSCB for their unfailing support and encouragement over the years. We especially thank the many people who have so willingly donated their time and talents to this project. It is *your* enthusiasm, creativity, commitment, and hard work that have made this project a success.

LITERATURE CITED

BIRDLIFE INTERNATIONAL. 2000. Threatened birds of the world. Barcelona and Cambridge, UK: Lynx Edicions and BirdLife International.

HAYNES-SUTTON, A. M. 1996. Out for a duck — the need for conservation of ducks in Jamaica. Jamaica J. 26:39–59.

HAYNES-SUTTON, A. 1998. A duck without a quack. Skywritings 116:24–27

SORENSON, L. G. 1997. Update on the West Indian Whistling-Duck and Wetlands Conservation Project. Pitirre 10:108–109.

SORENSON, L. G., AND P. BRADLEY. 1998. Update on the West Indian Whistling-Duck (WIWD) and Wetlands Conservation Project — Report from the WIWD Working Group. Pitirre 11:126–131.

SORENSON, L. G., AND P. BRADLEY. 2000. Update on the West Indian Whistling-Duck (WIWD) and Wetlands Conservation Project — Report from the WIWD Working Group. Pitirre 13:57–63.

SORENSON, L. G., AND P. BRADLEY. 2002. News from the West Indian Whistling-Duck (WIWD) and Wetlands Conservation Project. Pitirre 15:

137–139

SORENSON, L. G., AND E. CAREY. 1998. The West Indian Whistling-Duck and Wetlands Conservation Project — Working Group report on training workshop held in Nassau, Bahamas, 13-15 November 1997. Pitirre 11:19–22.

SORENSON, L. G., AND L. HUNTER. 2002. West Indian Whistling-Duck and Wetlands Conservation Project. U.S. Fish & Wildlife Service Wildlife Without Borders Spring 2002:8–9.

SUTTON, A. H., L. G. SORENSON, AND M. A. KEELEY. 2001. Wondrous West Indian wetlands: teachers' resource book. Boston, MA: West Indian Whistling-Duck Working Group of the Society of Caribbean Ornithology.

A GALLERY OF IMAGES FROM RECENT WETLANDS EDUCATION WORKSHOPS

Participants at the wetlands field trip to the Flashes, Helshire, workshop in Kingston, Jamaica (June 2003).

Demonstration of the "Salty Currents" activity in *Wondrous West Indian wetlands* by participants at workshop in Montego Bay, Jamaica (June 2003).

Organizers, facilitators, and participants at the workshop in Port Antonio, Jamaica (June 2003). L to R: Ingrid Parchment, Michele Kading, Winnifred Moore, Leo Douglas, Lisa Sorenson, Harvey Webb, Maisilyn Campbell.

Playing a game (*Migration headache*) about the consequences of wetland loss in Trinidad — workshop at the Pointe-a-Pierre Wildfowl Trust (May 2002).

A GALLERY OF IMAGES FROM RECENT WETLANDS EDUCATION WORKSHOPS

A "local resident" expresses her feelings (in Patois) about the proposed development of "her wetland" in a role-playing activity, *Difficult decisions*, Activity 4-D in *Wondrous West Indian wetlands* (Montego Bay, June 2003).

Fun with wetland charades workshop in Tobago (May 2002).

Unraveling the 'human food web" in Nassau. Workshop at Bahamas National Trust (January 2003).

Identifying wetland critters in the pour-a-pond demonstration in Antigua (November 2002).