UPDATE ON THE WEST INDIAN WHISTLING-DUCK (WIWD) AND WETLANDS CONSERVATION PROJECT — REPORT FROM THE WIWD WORKING GROUP

LISA G. SORENSON¹ AND PATRICIA BRADLEY²

¹Department of Biology, 5 Cummington St., Boston University, Boston, Massachusetts 02215, USA; and ²P.O. Box 907 GT, Grand Cayman, Cayman Islands, BWI

The West Indian Whistling-Duck Working Group (WIWD-WG) held its third meeting on 4 August 1998 at the Society of Caribbean Ornithology's annual meeting in Guadeloupe. For the past two years, the group has been working to reverse the decline of the West Indian Whistling-Duck (WIWD), a threatened regional endemic, through a region-wide public education and awareness program on the species and the importance of wetlands in general. The Working Group (WG) also provides training to regional biologists in waterfowl population survey and monitoring techniques, and has awarded funds to individuals in several islands for surveys of WIWD populations and identification of important wetland habitats for protection. Co-chairs Lisa G. Sorenson and Patricia Bradley gave updates at the Guadeloupe meeting on all the materials that have been developed for the public education and awareness program and WIWD-WG Island Representatives reported on progress in public education and monitoring of WIWDs in their countries. Here, we provide a summary of the Working Group's activities and accomplishments this past year and our plans and objectives for the coming year.

PUBLIC EDUCATION AND AWARENESS PROGRAM

Slide show. – The "WIWD and Wetlands Conservation Slide Show" has been completed and both English and Spanish versions are now available for distribution. A cassette tape of WIWD calls is included with the slide show. To date, 42 sets have been distributed to natural resource personnel in 11 countries. The WG donated slide projectors to the Dominican Republic, Cuba, and Jamaica for use in the education program.

Coloring Book. – The "WIWD Colouring Book" (5000 copies) and loose copy cat pages of the book's illustrations (1000 sets) have been published and are now available for distribution. Our thanks to Lynn Gape and the Bahamas National Trust (BNT) for coordinating this effort, Melissa Maura for the illustrations, and Kate Wallace for the Spanish

translations.

Puppet Show. — The "Wetlands are Wild" puppet show, highlighting the importance of mangrove wetlands, has been completed by Lynn Gape and her staff at the Bahamas National Trust (BNT) and packaged kits are now available for distribution. To date, 20 kits have been distributed to nine countries. The kit contains the puppet show script, instructions for constructing the puppet theater and backdrop, instructions and templates for making the puppets, and color photographs of all characters in the play. (For more information on the puppet show, see the Training Workshop Report in El Pitirre Vol. 11:19-22). We are presently working on a Spanish translation of the puppet show.

Posters. – A limited number of the beautiful WIWD conservation posters produced by RARE (both English and Spanish versions) are available for those who can make good use of them. David Hill has kindly been handling the shipment of posters to the islands.

Wetlands Education Workbook. – The first draft of the Wetlands Education Workbook has been prepared by Lynn Gape and Monique Clark of the BNT. The Workbook is now undergoing initial review and will be a priority for completion in 1999 (see below).

WIWD and Wetlands Education Training Workshop, Nassau, Bahamas, November 1997. — As described in the Training Workshop Report (El Pitirre 11:19-22), the WIWD-WG held a successful 2½-day training workshop in Nassau, Bahamas in November 1997. At the workshop, the slide show, puppet show, coloring book, posters, and wetland education tools and techniques were presented to the 45 participants (WIWD-WG members, government and NGO representatives, and schoolteachers) from nine countries. A training session in population survey and monitoring techniques was also given. All of the educational materials that have been developed

(and also the Wetlands Workbook – still in progress) will form a complete Wetlands Education Unit, which ideally will be used together for maximum impact.

Watchable Wildlife Ponds. - The WIWD-WG believes that Watchable Wildlife Ponds have an important role to play in education and appreciation of wetlands and wildlife, both for local populations and eco-tourism in the region. The ponds and education program at the Point-a-Pierre Wildfowl Trust in Trinidad provide an excellent model for the region, hence, the WG's invitation to Karilyn Shephard (Vice-President of the Wildfowl Trust) to Guadeloupe to give a presentation to the group. Ms. Shephard gave an excellent slide presentation on the Watchable Wildlife Ponds at the Wildfowl Trust their development, management of both the wetlands and birdlife, and their education program. Ms. Shephard also distributed information she and Molly Gaskin (Trust President) had prepared specifically for members of our group. The development of Watchable Wildlife Ponds throughout the Caribbean is strongly supported by the WIWD-WG (see progress in Cayman Islands below). Binoculars (45 pairs) have been donated by the WG to NGOs in seven countries for use in both education (birding field trips) and monitoring of WIWD populations.

Hunter Identification Card. – To help avoid accidental shooting of WIWDs and other protected waterfowl species in the Caribbean, the WIWD-WG is publishing a "Ducks of the West Indies" identification card for hunters. A first draft has been completed by Michele Kading and her staff at Ducks Unlimited's Oak Hammock Marsh in Manitoba. A durable, plastic version of the card (which can be taken into the field) is currently being published at Oak Hammock Marsh, using illustrations from Raffaele et al's. Guide to the birds of the West Indies.

Most of the above materials have been developed using funds received from the USFWS Western Hemisphere Program, Conservation International Bahamas, and the American Bird Conservancy. We gratefully acknowledge the support of these agencies. Please contact Lisa Sorenson or Patricia Bradley for additional information or to receive copies of our materials.

WIWD AND WETLANDS EDUCATION – ISLAND REPORTS

Cayman Islands. - Patricia Bradley reported great success with wetlands education in the CI. A Canadian and wetlands education and conservation specialist, Martin Keeley, who has lived in the CI for one month each year for the last 20 years, has taken a year's sabbatical from his work as Executive Director of Fraser for Life/Friends of Boundary Bay in British Columbia to develop a mangrove education program. He will coordinate a public education and awareness program in the Cayman Islands, traveling to all three islands to give presentations on the WTWD and wetlands conservation to schools, youth groups, church groups, and service organizations. Keeley will also take the lead in completing our Wetlands Education Workbook. In addition, he is working with youth of the CI Junior National Trust (newly activated by Mr. Keeley) to build the WIWD puppet theater and puppets (they gave their inaugural performance to a packed house at the National Trust's annual Truck and Trunk Sale on 28 November) and with high school students on the creation of a school mangrove mural with WIWDs at center stage. He has been leading schoolchildren and Junior National Trust members on field trips to mangrove wetlands and ponds and is working with the CI Director of Education and Ministry of Education Science Coordinator to get WIWD and wetlands education material into the school curriculum.

Patricia Bradley described her recent experience in initiating the development of a Watchable Wildlife Pond in the Cayman Islands. A local pig farmer, having observed the decline in populations of WIWDs in the CI, and feeling that this was the result of destruction of wetlands, began to feed WIWDs and the population responded, visiting his site regularly. After many years the Permanent Secretary for the Environment has recognized the farmer's efforts and the government has adopted the project. As a result of Patricia's efforts, the government has agreed to carry out a wetland restoration project at the pond, ultimately creating a Watchable Wildlife Pond. The government will provide the necessary heavy equipment to landscape the area. The CI Rotary Club is also providing support and has volunteered to provide a surveyor, materials, and labor. The architect's plans for the project involve improvement of the ponds as duck habitat, a screened viewing platform, a walkway which will provide access to viewing points on a promontory

onto the large hyper-saline lagoon, landscaping, and interpretative points where people will be able to use spotting scopes and educational materials. The WIWD-WG has contributed funds to aid in the completion of this exciting project.

Another major project in CI is the effort of the CI National Trust to get the whole central lagoon on Grand Cayman designated as a Ramsar site. This is the largest wetland in the CI and is of great importance for wildlife. The designation is controversial, however, and will require a great deal of effort from conservation groups over the next year if it is to be accepted.

Jamaica. - Suzanne Davis reported that BirdLife Jamaica (formerly Gosse Bird Club) had distributed most of the WIWD slide show sets they had been given in November 1997. Recipients have included Negril Environmental Protection Trust, University of the West Indies Life Sciences Department, Institute of Jamaica, and the Natural Resources Conservation Authority. Packages have been allocated to the Caribbean Coastal Areas Foundation and St. Elizabeth Environmental Association. The slide show has been presented three times (to the Association of Science Teachers, Gosse Bird Club, and a youth group) and more presentations are planned. The slide show has been well received; teachers were "appreciative of the new information" and "have a different perception of wetlands in terms of being a natural resource." WIWDs have also been featured in the Jamaica Conservation and Development Trust's education program. Suzanne has also been working with the Hope Zoo to improve their WIWD exhibit.

Ann Sutton recently published an excellent article on WTWDs in Jamaica for Air Jamaica's in-flight magazine, Sky Writings (June 1998 issue). The article describes the natural history of the duck, its decline throughout the Caribbean, the value of wetlands (not only as habitat for the bird but also for marine fisheries, and protection from storm damage and flooding), and conservation efforts of the WTWD-WG. Ann has also begun adapting the coloring book illustrations and slide show text for an issue of Crocodile News on WTWDs, to be published by the Jamaica Junior Naturalists using \$2000 already donated by the Canada Green Fund. This will be circulated to schoolchildren in Jamaica at no cost.

Dominican Republic. - Kate Wallace reported that

she had shown the slide show to the Club de Observadores de Aves Annabelle Dod and to members of the Department of Wildlife, including the person responsible for environmental education. Future presentations will be given at the Cabral Lagoon (a known WIWD nesting area) and to hunters at other WIWD reported sites (hunting the whistling-duck is illegal). The Department of Wildlife has indicated its interest in receiving a slide set. Kate ran a summer camp at the National Zoo which featured a full morning of activities about the resident WIWDs and she used the opportunity to translate and use the puppet show.

Simon Guerrero reported that the National Zoo in Santo Domingo has three wetlands that he would like to see managed as a living exhibit. He is working towards replacing introduced plants with native wetland species, and planting mangroves and other plants that are good for birds. Guerrero also plans to improve the signs, ensuring that they explain wetland ecology, and to use the poster with the WIWD picture, as well as to highlight the Ramsar Convention. More than 200,000 children visit the zoo annually.

At the request of Simon and several other WG members, Lisa Sorenson located a book on constructing interpretive signs – their design, what materials to use, and their placement. The book is entitled "Signs, tails and wayside exhibits: connecting people and places" and is \$20/copy (U.S.). It is one book in the Interpreter's Handbook Series recommended by Michele Kading. The whole series is excellent. To order a copy of the book, send a check payable to: College of Natural Resources, UWSP. Purchase orders are accepted. Shipped postage paid to Canada and U.S. All others, shipping extra. Mail check and order to: Michael Gross, College of Natural Resources, UWSP, Stevens Point, WI 54481, USA.

Antigua and Barbuda. – Kevel Lindsay said that a copy of the slide package has been provided to the headmaster of the school on Barbuda, who has shown it. It was well received. There are also plans to show the package to schools and civic groups.

Cuba. – Hiram Gonzalez and Lourdes Mugica reported that a network of people and institutions (including the zoo, several NGOs, museums of natural history, national parks, Zapata Swamp, Ministry of Education, University of Havana, and University of Pinar del Río) from several provinces has been

created to work on the education program. Progress has been limited so far because the Cubans did not have a slide projector to give the slide show (a problem recently alleviated by the WTWD-WG), although many groups are interested in having presentations. A workshop is planned to start the environmental education program.

Bahamas. - Eric Carey reported that the Education Office of the Bahamas National Trust continues to work with the WIWD-WG, Ministry of Agriculture, and Ministry of Education to implement the education program. Lynn Gape and her staff have been busy developing WIWD materials for the Caribbean (Wetlands are Wild puppet show, WIWD coloring book, and Wetlands Workbook draft). Presentations of the puppet show began in September. As of 30 November 1998, 2,638 students in 15 New Providence schools have seen the puppet show. In addition, the WIWD slide show has been given at a Teachers Workshop in August 1998 (70 teachers), a public meeting in Mathew Town, Inagua (25 persons), BNT Ornithology Group (30 persons), and a Ministry of Education Social Studies Seminar (25 persons). More schools are booked to see the puppet show throughout the remainder of the school year and the BNT staff are making plans to take the show on the road to other islands.

SURVEY AND MONITORING OF WIWDS – ISLAND REPORTS

Jamaica. – Ann Sutton reported that she has started a monitoring program in the Black River area (new Ramsar site) of southern Jamaica and is making progress towards developing survey methods for use in a variety of habitats. So far she has recorded more than 100 WIWDs in the survey area. She has found playback of WIWD calls to be an effective technique for locating birds. Cooperation from local groups (including BirdLife Jamaica and the Natural History Society of Jamaica) has been an important element in the program. Her preliminary findings were presented in the main session of the SCO meeting and a report has been prepared for the WIWD-WG Co-Chairs.

Cuba. – The Cuban biologists have put together a team of 5 individuals to collaborate on field work of WTWDs. Hiram Gonzalez reported that the Cuban monitoring program for WTWDs has two parts: (1) a national questionnaire survey about the distribution

of WIWDs. Six hundred questionnaires were distributed to the Ministry of Agriculture and Forest Rangers and other government employees, of which 300 were returned. The surveys suggest that the population is about 37,000 in the eastern part of the island (this needs to be verified). The population has greatly increased because in the early 1990s they were removed from the list of legally hunted birds. (2) Field work has started in three important areas in eastern Cuba (Monte Cabaniguan and Delta del Cauto in the Biramas Swamp, Cayo Confiti in Camagüey). Three field trips have been undertaken so far, but much more work is needed. The areas visited by the team have good WIWD populations. A population of 1000 birds was estimated for the Delta del Cauto area, whereas 5000 individuals were estimated in the Cayo Confiti area. Breeding, feeding, and roosting grounds are being described for each site. The Cuban biologists are finding that WIWD populations are often in remote and inaccessible areas. They are in need of a boat to reach these areas efficiently. The field team is interested in trying aerial surveys because many places are difficult to reach. The National Museum and University of Havana are willing to assist. Cuba is also cooperating with the University of Barcelona on a wetlands project which will produce data of relevance to WIWD conservation.

Turks and Caicos. – The RSPB has offered to send an officer on sabbatical for one month to begin a monitoring program.

Bahamas. – Stuart Morrison recently (April 1998) traveled to several islands (Cat Island, Crooked Island, Acklins, Eleuthera), distributing WIWD posters and talking with locals about the presence of WIWDs and hunting activity on each island. Preliminary assessments of WIWD populations were made for several islands, as summarized below.

Cat Island. – A substantial and stable population. There is some hunting, but the major threat to the birds seems to be caused by a conflict with agriculture. The government has provided incentives to people on Cat Island to grow corn and the WIWDs eat it when it is left out to dry. At least two individuals spoke of people poisoning the birds and Eric Carey said local farmers have been requesting permission to hunt or poison WIWDs. This problem will have to be solved before any education program can be

delivered effectively. The conflict between farmers and ducks is a direct result of farming policy, because corn production is heavily subsidized.

Crooked Island. – Thought to have a stable population. Some hunting occurs and the conflict with agriculture does not seem as intense as on Cat Island.

Acklins. – Reported by locals to have a stable population of WIWDs (no number estimates are available). Hunting is common, but the number of hunters is low (the whole island has less than 600 people).

Eleuthera. – The consensus for the central part of the island (i.e., James Cistern to Bogue) is that there are fewer WIWDs than previously. North Eleuthera still has a good population in ponds near the bluff.

Inagua. – There is a flock of several hundred. This is a Ramsar site.

Andros Island. – Ducks are common and the population is stable, despite hunting.

Long Island and Hog Cay. – In a two-year study of marked birds in a provisioned population, the population was estimated at 500 and 1100 birds in 1994 and 1995, respectively, by Nancy Staus.

Abaco. - No data.

Stuart noted how difficult it will be to get a definitive estimate of the number of birds on each island because of their nocturnal nature and their use of remote and hard-to-reach wetlands. He also mentioned that he found local people on all four islands to be receptive to the conservation message and that several hunters he talked with said that they will no longer shoot the duck now that they know there is concern for its survival (Note: the WIWD is a protected species in the Bahamas).

Cayman Islands. – Patricia Bradley reported that the population is more than 1000 and rising. There was concern about the large concentration of ducks at the pig farm on Grand Cayman. This year, however, Patricia has noted that the birds are spreading out and have bred in three places in eastern Grand Cay-

man, and four sites in the south, and that they have colonized a new golf course in northern Grand Cayman. Current estimates suggest that there are 1000 WIWDs on Grand Cayman, 200 on Little Cayman, and 35 on Cayman Brac.

Dominican Republic. – Kate Wallace said that they have not been able to begin monitoring and no population estimates are available.

Puerto Rico. – José Chabert reported that WIWD populations are fast declining. No monitoring is occurring, but populations are thought to be small (less than 100) and declining. Research is urgently needed. A general survey of waterfowl is expected to take place in the next two or three years. Chabert highlighted the need for telemetry studies and examination of breeding success. Depredation by exotics has been identified as the main cause of a decline in White-cheeked Pintail populations, and the WIWDs have probably also been affected. White-cheeked Pintails lay eggs, but the eggs disappear as a result of depredation by mongoose, rats, turtles and fish (e.g., tarpon). Tarpon also take chicks.

The areas currently used by WIWDs are not densely populated by people and José does not think that education is very important. They probably nest mostly in the *Pterocarpus* areas. Ten years ago about 80 were counted in one area but in recent years it is unusual to see more that one or two at a time. More detailed surveys are needed in the *Pterocarpus* areas.

Antigua and Barbuda. – Kevel Lindsay reported that a proposal for WIWD surveys was developed in 1997 by Alex Wyss, but was not successful in obtaining funding. There is an urgent need to revise and resubmit the proposal.

This year, Island Resources Foundation has been involved in the implementation of a wetlands survey of Antigua/Barbuda, funded by the Small Grants program of the GEF. The Foundation has been discussing requesting additional funds from the GEF (whose local office is in Barbados), to include support for a WIWD survey. The GEF has accepted the idea, but needs a formal request and detailed proposal. It is possible that funds could be found for a preliminary visit to identify strategies and prepare a detailed proposal. Kevel and Ann have discussed this.

The WIWD population of Barbuda was estimated as more than 2000 individuals in Wayne Arendt's

(1985) assessment. Unfortunately the source of this assessment has been mislaid. At least two thirds of Barbuda is wetland and access is difficult.

The disappearance of 50-80 WIWDs from Guiana Island is a serious cause for concern. A controversial hotel development project appears set to go ahead despite demonstrations by more than 10,000 people (about a sixth of the total population). Following a shooting incident, the island (previously occupied by two people) has been taken over by the police and military. The 600 acre island was assessed by an OAS project and was recommended as a marine park because of its important mangroves, seagrass beds, and scenic qualities. Nevertheless it has been turned over to a Malaysian developer for the huge tourism project. The cause of disappearance and the fate of the WIWDs is not known, but it is thought that they have dispersed to other islands rather than having been eaten or shot.

DIRECTIONS FOR THE FUTURE

A second grant proposal for continuation funding for the West Indian Whistling-Duck and Wetlands Conservation Project was recently submitted to the USFWS Western Hemisphere Program and Conservation International Bahamas continues to support our work. Our first priority for 1999 is to complete and publish the Caribbean Wetlands Education Workbook. Lynn Gape and her staff at the Bahamas National Trust have completed a solid first draft. We are fortu-

nate to have the help of Martin Keeley (wetlands educator in the Cayman Islands) to help us bring the workbook to completion.

Our second objective is to continue with the Public Education and Awareness Program that we initiated in 1997. We plan to more widely distribute the various educational materials we have developed, continue with our education program for schoolchildren and the general public, and will hold another Teacher Training Workshop demonstrating the use of the materials and wetlands education techniques at the next SCO meeting in the Dominican Republic. Our long-range goal is to see that a Wetlands Education Unit (comprised of the materials we have developed) becomes a permanent part of every school's science curriculum in each of our target islands. Island Representatives to the WIWD-WG will work with Education Department personnel in their own country to reach this goal.

Our third objective for the coming year is to continue assisting local biologists with surveys and monitoring of WIWD populations and in the establishment of a long-term monitoring program in two countries. Knowledge of WIWD population levels and habitat use are crucial in making management plans, setting priorities for habitat conservation, and ensuring that areas providing the WIWD with quality habitat year-round are protected. We are tentatively planning to hold a Monitoring Training Workshop for local personnel at the 1999 SCO meeting.

A NEOTROPICAL WATERBIRD MANAGEMENT PLAN: A VEHICLE FOR SUPPORTING SHOREBIRD CONSERVATION IN THE AMERICAS

IAN DAVIDSON

Executive Director, Wetlands International-Americas

Over the last few months we have been actively seeking support to develop the neotropical counterpart of the North American Waterfowl Management Plan (NAWMP). Although broader than the initial scope of NAWMP (includes all waterbirds), the experiences learned from NAWMP will serve as a useful basis for developing the neotropical equivalent for a wide variety of migratory bird species - some of which breed in North America (in particular, a large group of North American breeding shore-birds). The proposed conservation plan builds on the

Neotropical Waterbird Census which has been operating since 1990. A review of the Census was completed with funding support from the Latin American Program of the Canadian Wildlife Service (CWS). One of the recommendations from this review was to broaden the scope of the Census to include all waterbird species and focus on activities supporting their habitat conservation throughout Latin America and the Caribbean. Over the next three months, Wetlands International (WI), with support from Ducks Unlimited Inc. (DU), CMS (the