

## Regional Shorebird Conservation Plan Updates - March 2003

**ALASKA** (Brian McCaffery, Yukon Delta National Wildlife Refuge)

Implementation of the plan has moved forward along several fronts over the last year. In terms of administration, the Alaska Shorebird Working Group has adopted official terms of reference, elected a chairperson and an executive committee, selected a secretary, and changed its name to the Alaska Shorebird Group (ASG). An ASG website is being designed, and work on the Beringian shorebird database will resume in April 2003. Revision and updating of the Alaskan shorebird conservation plan is also scheduled for 2003.

Extensive research on priority species is continuing, including the 3 highest priority species in the region. These projects include an analysis of habitat use in the Beringian Marbled Godwit, regional surveys and genetic analyses of Bristle-thighed Curlews from French Polynesia, and investigations of ecology and population size of Buff-breasted Sandpipers wintering in South America. Ongoing research by ASG members involving other conservation priority species includes work on distribution and ecology of Black Oystercatchers in Kenai Fjords and Prince William Sound, trans-Pacific migration in Pacific Golden-Plovers, annual production in Bar-tailed Godwits, migration routes and wintering sites of Dunlins wintering in Asia, and a population estimate of Rock Sandpipers on St. Matthew Island. In 2002, ASG members authored or co-authored 3 *Birds of North America* accounts on priority species, including Wandering Tattler, Bristle-thighed Curlew, and Rock Sandpiper.

In 2002, ASG partners working on national wildlife refuges throughout western Alaska began pilot implementation of an international shorebird monitoring scheme under the auspices of PRISM (Program for Regional and International Shorebird Monitoring). In 2003, partners on the Yukon Delta, at Barrow, and on the Arctic National Wildlife Refuge will be involved in further testing of PRISM's arctic-breeding shorebird monitoring protocols. A major study of the effects of human infrastructure and predators on shorebird nesting success on the North Slope of Alaska was initiated in 2002, and will be continued in 2003. This study brings together partners from the Federal government, independent conservation organizations, and the oil industry. The National Park Service and the Alaska Science Center (USGS) are continuing their collaboration to inventory shorebirds in parklands throughout Alaska. In southeast Alaska, discussions have begun to develop a regional assessment of migrant shorebird resources (following PRISM guidelines) for evaluating the potential for migration monitoring. In other research, an analysis of contaminants in shorebird eggs collected from across the state in 2002 is ongoing, and a proposal has been submitted to expand the work to adult birds at migration and wintering sites.

In the Information and Education arena, the Sister Shorebird School Project continues to expand, with projects in Barrow and other communities, and there are plans to produce a film and audiotape of breeding shorebirds at Barrow as well. On the international front, ASG members are actively partnering with colleagues from at least 8 foreign countries from both the East Asian/Australasian and several North American flyways on shorebird conservation projects.

Finally, the Yukon Delta has been nominated to become part of the East Asian/Australasian Shorebird Reserve Network. A full report featuring abstracts of ASG projects is available at: <<http://shorebirdplan.fws.gov/RegionalShorebird.htm>>.

#### **NORTHERN PACIFIC** (notes from LaCrosse meeting)

Although the working group has not been active over the last year, there is interest in re-convening the core working group. The Pacific Coast Joint Venture is supporting some projects, but better integration of the shorebird community into active habitat management is needed. Specific habitat objectives are needed to further shorebird management in the region. PRISM regional assessments for monitoring shorebirds during the non-breeding season are being conducted in Oregon and Washington.

#### **SOUTHERN PACIFIC** (Catherine Hickey, Point Reyes Bird Observatory, Conservation Science)

##### A. Regional shorebird working group and implementation meetings sponsored

1. Initiated the Central Valley Shorebird Working Group and held the first three working group meetings in the Grasslands, CA. on July 07 and October 22, 2002, and February 13, 2003. Approximately 30 participants from federal, state, and private resource conservation organizations attended each meeting.
2. Held a meeting of state and federal easement program (e.g. Wetlands Reserve Program, USFWS Easement Program, Partners for Fish and Wildlife, Conservation Reserve Enhancement Program, Presley Program – a state incentive program) coordinators and biologists to discuss opportunities to provide shorebird habitat on private lands throughout the Central Valley of California. Meeting attendees were enthusiastic and laid out an initial strategy for a productive relationship between shorebird interests and private lands managers.
3. Conducted field visits to promote best management practices for shorebird conservation and investigate opportunities for broad-scale shorebird habitat provision at these Central Valley locations with the following representatives:
  - a. Tulare Basin – NRCS Wetlands Reserve Program, Bureau of Land Management (BLM) and private landowners/consultants;
  - b. San Joaquin Basin – California Department of Fish and Game’s Comprehensive Wetlands Habitat Program, private duck clubs, Grasslands Water District (in Grasslands Ecological Area); and
  - c. Yolo Basin - California Department of Fish and Game wildlife area managers.

4. Conducted a “Shorebird Identification and Conservation Workshop” in which 15 participants received an overview of shorebird conservation issues in the Southern Pacific Region, were taught about shorebird monitoring techniques, and were brought into the heart of our Snowy Plover Recovery Project in Monterey County for research, monitoring, and management demonstrations.

5. Conducted a meeting with all California State Park Superintendents (20 attendees, June 2002, Sacramento) to discuss methods for evaluating effectiveness of management efforts on shorebirds and for protecting the federally threatened Western Snowy Plover (one of the highest priority species in the U.S. and Southern Pacific Shorebird Conservation Plans).

#### B. Involvement with the North American Waterfowl Management Plan (NAWMP) Joint Ventures in the Southern Pacific Region

1. Membership and active participation on planning and technical committees of the Central Valley Habitat Joint Venture, including the Technical Committee, the Plan Update Committee (responsible for overseeing the 2003 update to the Implementation Strategy), the Tulare Basin Planning Group, and the Tulare Water and Power Subcommittee. Working to integrate shorebird habitat needs into the Central Valley Habitat Joint Venture Implementation Strategy that is being updated for fall 2003; this will be a major step towards implementation of shorebird conservation goals.

2. Membership and active participation on the Restoration Strategy and Technical Committee of the San Francisco Bay Joint Venture.

#### C. Collaborated on major wetlands restoration projects/proposals to conserve shorebirds in California.

1. Collaborated with the Marin Audubon Society and the San Francisco Bay Joint Venture on a North American Wetlands Conservation Act (NAWCA) proposal for the acquisition of an approximately 650 acre tidal wetland and upland property in Marin County, California called Bahia. The property supports more than 125 species of birds and five listed or endangered species. The proposal was funded by NAWCA for approximately \$1M in summer 2002.

2. Collaborated with Ducks Unlimited and the California Department of Fish & Game on a restoration proposal for a portion of the Moss Landing Wildlife Area near the mouth of Elkhorn Slough, California. The Moss Landing salt ponds consist off approximately 150 acres of retired salt ponds and function as possibly the most productive habitat for the federally threatened Western Snowy Plover in its range. They also support a variety of other shorebird and waterbird species migrating through and wintering in the area.

3. Collaborated with the California Department of Fish & Game on proposal

development for the California Landowner Incentive Program. The California LIP will help provide habitat for priority shorebird species within the Central Valley primarily during summer and fall. The Tier 1 & 2 proposals, totaling approximately \$1.6M over 5 years, have been funded.

#### D. General Outreach Publications

1. Developed brochure and accompanying posters: Shorebird Conservation in the Southern Pacific Shorebird Planning Region. These products introduce the U.S. and Southern Pacific Shorebird Conservation Plans and describe current status of shorebirds in the Southern Pacific Region and proposed conservation measures. There will be ongoing distribution to conservation partners, agencies, wetland education centers, and the general public (over 500 distributed to date).
2. Developed white paper titled, “Birds on West Coast Beaches: How You Can Help”. This white paper describes effects of human-caused beach disturbance to wintering, migrating and breeding shorebirds and will be disseminated to coastal refuges, reserves, and national parks along the west coast of the U. S.
3. Developed white paper titled, “Shorebirds in the Central Valley”. This white paper describes shorebird use and population trends in the Central Valley and highlights conservation recommendations.
4. Developed white paper titled “ Shorebirds in South San Francisco Bay Salt Ponds” which describes the habitat value of salt ponds for shorebirds and other waterbirds.
5. Published article in Birdscapes, Winter 2003 issue: “Tuning in to Migration”. Birdscapes is published by US Fish & Wildlife Service, Division of Bird Habitat Conservation, and the Canadian Wildlife Service with a 14000+ readership in 78 countries. Our article describes the international effort by PRBO researchers and others to track shorebirds from Mexico to Alaska.
6. Developed web pages to enable the public and school children to follow the progress of radio-marked Western Sandpipers and Long-billed Dowitchers from Mexico to their breeding grounds in the Arctic during spring 2002 (<<http://www.prbo.org/education/sinaloa.html>>) This site was linked to the SSSP website and was advertised through SSSP listserv to an international audience.

#### E. Classroom Education Products and Publications

In partnership with USFWS Shorebird Sister Schools Program, an internet-based wetland conservation program linking schools throughout the Western Hemisphere, we: 1) developed and test classroom activities linking shorebird and waterfowl identification and surveys to the California State Mathematics Standards for estimating, sorting, and classifying; 2) participated

in the Shorebird Sister School Program's listserv, and 3) developed and disseminated wetland and shorebird web resources for teachers. We completed a draft educational display titled, "Beaches are Habitat!", which includes a hands-on 'make-a-scrape' activity in which students construct life-like Snowy Plover nests. We created two classroom activities for inclusion in PRBO's teacher resource packet, "Shorebird Superheroes" & "Shorebirds On-line", and produced a laminated Waterbird Identification Chart with pictures of common species for use in the field. We have given out 2 copies to date and will be disseminating these to approximately 20 classrooms in the San Francisco Bay Area. We will also disseminate through PRBO's web site. We continue to support Snowy Plover outreach, research, and monitoring efforts.

#### F. Funding acquired:

1. Obtained David & Lucile Packard Foundation grant for \$113K for advancing shorebird conservation in the Southern Pacific Region and national/international involvement in shorebird initiative.
2. Obtained a National Fish and Wildlife Foundation grant of \$56K to match Packard Foundation support of regional shorebird conservation and to expand shorebird outreach and education efforts in the Southern Pacific Region.

#### **U. S. PACIFIC ISLANDS** (notes from LaCrosse meeting)

The second draft of the shorebird conservation plan for the U. S. Pacific Islands is under review and should be available this year. Shorebird interests are well-integrated into management activities in Hawaii and shorebird conservation efforts are being coordinated with the South Pacific Regional Environment Programme. In the Hawaiian islands, radio-tracking of Pacific Golden-Plovers is continuing and participation is high in the educational program "Kolea Watch".

#### **INTERMOUNTAIN WEST** (notes from LaCrosse meeting)

Although the working group has not met, shorebird conservation efforts are being incorporated into the Joint Venture within state implementation plans. The JV has a small grants program (\$150K) available for projects within the region. The JV technical committee includes members from all bird initiatives. An all-bird workshop was held in March 2003 and included >150 participants from Great Basin BCR. The purpose of the workshop was the development of state implementation plans.

## **CENTRAL PLAINS/PLAYA LAKES** (Suzanne Fellows, U. S. Fish and Wildlife Service)

### **A. Monitoring**

1. working on regional assessments for the migration monitoring portion of PRISM.
2. Long-billed Curlew range wide breeding survey addresses PRISM temperate breeding monitoring objectives as well as CP/PLR priority species and habitat goals.

### **B. Habitat**

1. Playa Lakes Joint Venture (PLJV) Monitoring, Evaluation and Research Team (MERT) is in the process of developing a Species for Management Action list and habitat goals for regional breeding grassland shorebirds. The JV has a new website (<<http://www.pljv.org/>>).

### **C. Education/outreach**

1. DVD from Kansas Department of Wildlife & Parks on shorebird id (funding provided by KDWP & USFWS).
2. SSSP regional efforts concentrated in KS last year (teacher workshop sponsored by Great Plains Nature Center, Quivira NWR, USFWS Migratory Birds, Friends University, SSSP) curriculum revision for SSSP to include Central Plains/Playa Lakes.
3. Shorebird education trunks provided for Quivira NWR (and other refuges outside of CP/PLR) by Prairie Potholes Joint Venture.
4. Quivira NWR dedication as a Ramsar site (May 2002).
5. Presentations of shorebird plans (regional and national) at IAFWA-sponsored state all-bird conservation meetings in Colorado and Kansas.

## **NORTHERN PLAINS/PRAIRIE POTHOLE**S (Lisa Gelvin-Innvaer, Minnesota Nongame Wildlife Program)

**Who:** Craig Mandel :Minnesota River Valley Audubon Chapter and the Minnesota Valley National Wildlife Refuge.

**What:** slide presentation re: Shorebirds

**Where:** Minnesota Valley National Wildlife Refuge, Visitor Center, Bloomington

**When:** August 16, 2003, Saturday - 3:00pm -- 5:00pm - Could be done annually, but currently not scheduled as such.

**Who:** Mary Soler USFWS- Litchfield WMD

**What:** Initiated doing shorebird surveys in 2002 following the ISS protocol on 4 sites within the Litchfield Wetland Management District.

- 1) Swan Lake WPA in Kandiyohi County
- 2) Tyrone Flats WPA in Meeker County
- 3) Some seasonal wetlands on private land in Meeker County
- 4) Paynesville sewage ponds

**Who:** Mark Martell, Director of Bird Conservation Audubon Minnesota

**What:** Important Bird Areas

will be identifying sites around Minnesota that are "important" to birds. Shorebird sites will certainly be among those we look at. Had first committee meetings on 2/27. Right now, taking the results of those meetings and preparing a final drafts of 1) criteria to determine IBA status, 2) process to nominate sites, 3) nomination forms, and we are also beginning to compile lists of both "model" and potential sites.

**Where:** Statewide, Minnesota

**When:** Ongoing

**Who:** Diane Granfors, Habitat and Population Evaluation Team USFWS

**What:** in 2002 we surveyed restored and previously existing wetlands for breeding shorebirds (primarily MAGO, WIPH, COSN, SPSA) in Marshall county. Plans for 2003 are to continue breeding shorebird surveys, but will work farther south. We will be working out some sort of protocol to verify the heuristic MAGO model (at least visit sites of differing predicted habitat potential and determine presence/absence).

**Who:** Neal Niemuth Habitat and Population Evaluation Team USFWS

**What:** In 2002, the Region6 HAPET office conducted shorebird surveys on ~1700 basins in ND, SD, and MT to look at the effect of roadside bias on detection of marbled godwit, willet, Wilson's phalarope, and American avocet. All the data have not yet been analyzed, but the take-home message is that the birds are detected so infrequently we'll likely have to use roadside surveys in order to get a decent sample size. We'll be doing similar surveys this spring with an emphasis on determining temporal (seasonal and daily) patterns in detectability.

**Who:** Lisa Gelvin-Innvaer, MNDNR Nongame Wildlife Specialist and co-coordinator of NP/PP Shorebird Region

**What:**

1. Working to improve communications within MN and within NP/PP.
2. Received shorebird learning kit (trunk) from WHSRN. We'll be adding some MN related items and making arrangements for this to be available for loan. Inquiring about purchase of up to 3 more kits for MN.
3. Presentation on shorebird conservation (& opportunities for integration with waterfowl) at the 2002 Statewide Meeting of the Minnesota Waterfowl Association (also had a table top exhibit and numerous handouts. Very well received. I was asked to

speak about shorebirds again at the 2003 state meeting but am unable due to schedule conflicts.

4. Aug 2002--At request of Minnesota Waterfowl Association (MWA), provided a 3 day training workshop for NRCS staff and MWA staff who work with private landowners re: Wetland Reserve Program projects. Focus was on Shorebirds but also incorporate other waterbirds (in broad use of the term) and wetland wildlife. Project materials were adapted from the WHSRN workshops including classroom instruction and field trips. [been improving and creating PowerPoint presentations) Cooperated with USFWS, other MNDNR units and the North Heron Lake Game Producers. This workshop and shorebird conservation in general were the topic of a Venture North segment (cable access outdoor program).

5. Increased collaboration between NRCS and the MN Nongame Wildlife Program. Been invited to provide more detailed input to NRCS re: specific WRP projects.(shorebirds – breeding & migratory-- have been a key consideration).

6. MWA held a Moist Soil Management Symposium. Presenters included Leigh Frederickson and colleagues from Univ. of Missouri. Shorebird habitat needs among the key topics discussed Habitat restoration and management that accommodates shorebirds (along with waterfowl) was among the key focus areas Approximately 60 people (primarily resource professionals) attended from across MN. Unfortunately, many people had to be turned away because the facility was beyond capacity.

7. Assisting Susan Skagen & Cynthia Melcher on their shorebird study (see <[www.mesc.usgs.gov/research/5005171.asp](http://www.mesc.usgs.gov/research/5005171.asp)>) soliciting volunteers, identifying potential volunteer “candidates” Identifying potential survey site, discussing logistics, soliciting and compiling drawdown information.

8. Provided info to MN IBA committee re: shorebirds. Discussions regarding what constitutes an “important” shorebird site in the Interior. IBA system not necessarily representative of how shorebirds migrating through the Interior use habitats.

9. MNDNR Shallow Lake Specialists have requested shorebird ecology & habitat management training (date has not been set).

10. Purchased 2 copies of a commercial video re: shorebird I.D. to make available for loan. Also purchased approx 40 slides from Cornell Laboratory of Ornithology depicting shorebird species that migrate through MN (where possible & meaningful: breeding/no breeding plumage, views of adults/juveniles, M/F) for training purposes.

11. Joint Ventures---providing guidance to MN JV Steering Committee and to John Schladweiler (PPJV tech committee member) information & updates on shorebirds.



**Who:** Dr. David Naugle , Univ. of Montana

**What:** Involved with Tri-national Initiative for Marbled Godwit Conservation

**Who:** Bill Schultze, Wildlife Biologist Sand Lake NWR Columbia, SD:

**What:** conducted shorebird surveys on Sand Lake Refuge using ISS protocol

**When:** 2002 (as well as 2000, 2001)

**Who:** Eileen Dowd Stukel, Wildlife Diversity Coordinator, SD Dept. of Game, Fish & Parks

**What:** preparing a full-color booklet on South Dakota shorebirds for free distribution to the public. The booklet contains general shorebird information, specific information about SD breeding species, management considerations, and viewing and identification tips. The project is being funded by Federal Aid in Wildlife Restoration and SDGFP funds.

## UPPER MISSISSIPPI VALLEY/GREAT LAKES

### A. Regionwide projects or those not tied to a specific BCR

1. Piping Plover--habitat management, recovery plan implementation, designation of critical habitat.
2. PRISM development.
3. Landscape scale/physiography study (Fredrickson grad student)-MO & MN.
4. Important Stopover Sites Identification — currently creating GIS of sites for Region 3 (by state and regional overview), and gathering information on sites (ownership, species, notable concentrations, management, etc.).

### B. BCRs 12, 13, 23, 24

1. Shorebird Sisters School Training Workshops planned for northern Ohio, and in either western MO/eastern KS or western MN/eastern SD.
2. BCR all-bird workshops (completed BCR 13), scheduled for MN, WI, IN, IL.
3. BCR 13 focus areas identified included shorebirds are Lake St. Clair to northern Ohio–Sandusky.
4. WHSRN dedication for Ottawa NWR, OH and Pt. Mouille, MI.
5. Mississippi River drawdown coordinated with Corps of Engineers (Pool #8) included shorebird monitoring.

### C. BCR 22

1. People-exclusion zones established at Montrose Beach, Chicago (for shorebirds) and

Indiana Dunes National Lakeshore (for Piping Plover-critical habitat).

2. Mississippi River drawdown coordinated with Corps of Engineers (Pool #8) included shorebird monitoring.

3. Various NWR drawdowns: Squaw Creek, Two Rivers NWR-Calhoun Division-Swan Lake, Two Rivers NWR-Batchtown Division-Prairie Lake, Port Louisa NWR and others.

D. Future project

1. Identify important habitat for breeding shorebirds (Upland Sandpiper, Spotted Sandpiper--maybe Killdeer, Common Snipe, and American Woodcock).

**LOWER MISSISSIPPI/WESTERN GULF COAST** (Randy Wilson, Lower Mississippi Valley Joint Venture)

We are nearing completion of two research projects directed at testing assumptions underlying the biological model used to derive habitat objectives for south bound migrating shorebirds in the Mississippi Alluvial Valley.

A. Assumption 1: Migrating birds stopover for a period of 10 days

Dave Krementz (USGS Coop Unit, University of Arkansas) has led a research effort to estimate stopover length (in days) for Pectoral and Least Sandpipers. Pectorals were captured and fitted with radio-transmitters and Least were uniquely color marked. The graduate student has completed field work and is in the analysis and thesis writing stage.

B. Assumption 2: Food is available at 2g/m<sup>2</sup>

Jack Grubaugh (University of Memphis) has led a research effort to estimate food availability and depletion on several managed impoundments using exclosures. The graduate student has completed field work and is in the analysis and thesis writing stage.

C. Assumption 3: 500,000 birds migrate through the MAV during fall migration

To address this assumption, we have organized a large-scale monitoring effort to start building a database of observations that will facilitate the estimation of a population number. The surveys are organized to occur on two predetermined weekends, so that numerous sites are counted simultaneous to provide a snap-shot of bird numbers. Additional surveys are being conducted on a smaller set of these same sites (mostly NWRs) following ISS protocols. All data is then entered into a web-based data repository (<[www.lmvjv.org/shorebirds](http://www.lmvjv.org/shorebirds)>).

**SOUTHEASTERN COASTAL PLAIN/CARIBBEAN** (Chuck Hunter, U. S. Fish and Wildlife Service, and Craig Watson, Atlantic Coast Joint Venture)

A. Beaches as Shorebird Habitat

During the past few months Chuck Hunter has been mostly involved (with many of working group members over issues involving potential reg changes for horseshoe crabs and constant disturbance pressures involving beach nesting and otherwise feeding species. These have been largely bad news items with respect to Southeast, despite the fine pamphlet that we have worked on (under the able leadership of Marc Epstein) and participation of several folks at the Northeast oriented meeting on resolving Horseshoe Crab (Delaware Bay) issues (with some of us thinking a resolution there will place more pressure on horseshoe crabs and therefore shorebirds dependent upon their eggs in the Southeast).

Better news includes various efforts on gaining better understanding of American Oystercatcher breeding and wintering populations. The wintering stuff of course is part of an eastern NA wide effort that Stephen Brown, Brian Harrington, Brad Winn, and others have been involved with. Breeding season studies at National Seashores in NC (Ted Simons, Jaime Collazo) and GA (Sara Schweitzer, Joe Meyers) are also underway.

B. SAMBI Waterfowl/Shorebird Monitoring Website

A waterfowl/shorebird monitoring website has been developed through the U.S. Fish and Wildlife Service under South Atlantic Migratory Bird Initiative. A need was identified for better coordinated monitoring of waterfowl and shorebirds along the southeastern coast. It would provide valuable information to managers to allocate impoundment acres for waterfowl and shorebirds. The site has public and private access. The public site allows biologists, managers, and the general public to view results of surveys almost real-time on impoundments on any managed lands in the southeast that are participating in the program, including National Wildlife Refuges, National Forests, State Management Areas, and private lands. The site is expanding to the northeastern states.

The goals of the site are to determine and track trends and distribution of waterfowl and shorebirds during migration and throughout the wintering period, track occurrence of rare or high priority species, better tracking of marked shorebirds, better synchrony of impoundment management along the coast, and reduce demand on refuge managers for waterfowl and shorebird numbers. The public site is at <<http://samigbird.fws.gov/>>. The private site is for managers to input data and is not accessible by the public. For access to the restricted site, contact Bob Noffsinger of the U.S. Fish & Wildlife Service in Manteo, North Carolina (bob\_noffsinger@fws.gov).

The South Carolina Shorebird Habitat Management Group, which is a body of partners in SC, reaches out to private and state lands, mostly private, some federal, and identifies landowners willing to manage impoundments in late winter/early spring for shorebird

migration. All indications are that participating private landowners significantly contribute to goals for managed acres during this time frame. The next step is to get into GA and NC and work with landowners, and begin working with them on providing acres for fall shorebird migration. Additionally, State Working Groups of SAMBI have identified specific goals for shorebirds within their state, all which directly come from the SE plan. The SC group is working with the U. S. Army Corps of Engineers to manage dredge sites for fall migration, easing the pressure on anyone to provide this on private lands.

#### **NORTHERN ATLANTIC** (notes from the LaCrosse meeting)

The Atlantic Coast Joint Venture is actively involved in shorebird conservation in the Northeast; their technical committee includes members with shorebird expertise. The group met in the fall of 2002, in conjunction with Partners in Flight, to discuss priorities and projects for the region. Specific discussions focused on the use of State Wildlife Grants for conservation plan implementation. A regional assessment of PRISM is occurring across the Atlantic coast. No specific habitat objectives have been set. Effort has been directed toward immediate threats — principally, horseshoe crab harvest in Delaware Bay and beach disturbance.