



The U.S. Shorebird Conservation Plan

Building Partnerships for Shorebird Conservation

John Cecil, Chair
National Audubon Society
545 Almshouse Road
Ivyland, PA 18974 USA

Catherine Hickey, Vice-Chair
PRBO Conservation Sciences
4990 Shoreline Highway One
Stinson Beach, CA 94970 USA

Brad Andres, Coordinator
U. S. Fish and Wildlife Service
P.O.Box 25486, DFC-Parfet
Denver, CO 80225-0486 USA

Minutes of the U. S. Shorebird Conservation Plan Council Meeting

Simon Fraser University, Burnaby, B.C. – 11 August 2011
Held in conjunction with the Western Hemisphere Shorebird Group meeting.

U.S. Shorebird Conservation Plan (USSCP) Council Structure

John Cecil, Chair of the USSCP Council, welcomed 23 participants and provided them with a brief overview of the structures put in place to implement various components of the USSCP. Besides the 12-member Council (consisting of representatives from agencies, non-governmental organizations, Joint Ventures, and Landscape Conservation Cooperatives), a group of 10 advisors provides additional input to the Council on the general direction of the USSCP and on specific policy issues. Several committees have been established to address specific technical issues and include: Population Sizes and Trends, Conservation Assessment, Program for Regional and International Shorebird Monitoring (PRISM), and Western Hemisphere Shorebird Reserve Network (WHSRN) – U.S. Regional contacts with shorebird expertise are also tapped to comment on WHSRN nominations, Joint Venture implementation plans, and regional conservation issues. Minutes of the Council meetings, work by various committees, and policies on advocacy and an international perspective are all posted on the USSCP website (<http://www.fws.gov/shorebirdplan/>).

ACTION: Post graphic of current structure and list of Councilors and Advisors on USSCP website – B. Andres by 31 Aug 2011.

ACTION: Revise current estimates of shorebird population sizes and trends – Shorebird Population Sizes and Trends Committee by 31 Dec 2011.

ACTION: Incorporate new size and trend information and effects of climate changes into a conservation assessment of shorebird populations – Shorebird Conservation Assessment Committee, by 31 Mar 2011.

ACTION: Review the 2012-2016 WHSRN strategic plan – WHSRN-US Committee, by 31 Aug 2011.

U.S. Shorebird Conservation Plan Assessment

As a way to judge current performance and identify improvements needed to increase performance, the Joint Ventures (JVs) developed a “desired characteristics matrix” for all of the operational elements of a JV (e.g., biological planning and conservation design, monitoring and evaluation). For each element, targets to be minimally and fully functional were described, progress on obtaining full functionality was reported, current performance was rated, and improvements needed to become fully functional were recommended. Approaches for species and habitat JVs were combined to produce a template for a USSCP assessment. Over the last year, target language was developed, progress reported, and suggestions for improvements were drafted. This meeting was used to expand the suggested improvements rate progress.

One of the products under the Biological Planning and Conservation Design element was the development of a strategic plan. As the group moved through the assessment, it became obvious that the needed improvements could form the basis of a strategic plan.

ACTION: Inform JVs and States of availability of Shorebird Species Conservation Plans – B. Andres, B. Vermillion; by 15 Sep 2011.

ACTION: Complete elements not assessed by group – M. Reiter, J. Liebezeit, R. Lanctot, S. Fellows; completed.

ACTION: Complete draft of entire matrix, distribute for review by Council – B. Andres, by 21 Sep 2011.

ACTION: Develop needed improvements identified in assessment into a five-year strategic plan and distribute to Council and Advisors – B. Andres by 15 Oct 2011.

Tri-Initiative Science Team Formation

Catherine Hickey, Vice-Chair of the USSCP Council, described the formation of the Tri-Initiative Science Team (TRIST), which would complement the National Science Support Team of the North American Waterfowl Management Plan. The purpose of the team is to increase scientific collaboration and communication between JVs and non-waterfowl bird conservation plans. An inaugural meeting was held in June 2011 in Corpus Christi, Texas. Topics on the agenda included population objectives, monitoring, and designation of nationally important wetland areas.

The population objectives discussion centered around communication – taking the pulse of JVs on methods used to generate objectives and their assessment of quality standards, and developing a centralized database of objectives. Todd Jones-Farrand, Central Hardwoods JV, is the lead for accomplishing the tasks identified above.

For the monitoring discussion, participants produced a list of key decisions (money, effort, etc.) made at the JV scale that will move bird conservation forward and then brainstormed specific examples of monitoring programs that have influenced allocation decisions. Discussions also

focused on responding to the conceptual framework for the national marshbird program and the need to define scalable measures of success.

Complete minutes of the TRIST meeting are available from Brad Andres.

ACTION: Ensure the USSCP Council stays engaged in TRIST and has representatives at meetings. Also respond to requests that arise from the population objectives tasks – J. Cecil, ongoing.

Nationally Important Wetland Shorebird Areas

As part of a U.S. Standard Grant proposal to the North American Wetlands Conservation Act (NAWCA), applicants need to answer the following technical question (#3): How does the proposal location relate to the geographic priority wetlands described by...the U.S. Shorebird Conservation Plan...? Starting in 2004, we supplied NAWCA administrators and Council staff with tools to help score this question. However, the Council staff has asked the waterbird, shorebird, and PIF councils to provide further guidance on this question. In general, the issues surrounding the designation of nationally important shorebird areas include:

1. Balancing discrete, stopover areas with dispersed breeding areas. Some stopovers, like Delaware Bay, are obvious in their importance to migrant shorebirds. Defining high density breeding areas and where to draw the line is far more difficult. These differences lead us to adopt the "blob" approach over a series of distinct, discrete sites. We also felt that enhancing a wetland in close proximity to a delineated site could have benefits as great as working within a more discrete, smaller boundary (e. g., South Carolina coastal wetlands, Prairie Potholes).
2. Definition of boundaries. This is important if there is a call on "in" or "out" of an important area. In reviewing proposal benefits to shorebirds, some biological interpretation of sites is made to determine if they are close to a designated important area. Defining the extent of coastal areas is a particular problem.
3. Wetland Habitats and Species. It is important to remember that NAWCA addresses wetland habitats and wetland-dependent birds. This has traditionally filtered out dry grassland-nesting species and pelagic foragers.
4. Complexity. Several times, the addition of tiers to the importance of sites (e.g., WHSRN) has been discussed. There is a need to balance a simpler rather than more complex solution to evaluating this question, while ensuring our recommendations are biologically parsimonious.

Suzanne Fellows and Brad Andres have been reviewing GIS layers that will provide greater resolutions to boundaries and believe Level IV Ecoregions may provide a good spatial context for designating shorebird areas. We reviewed a few of these examples at the meeting.

ACTION: Develop a definition of a nationally important shorebird area, including possible tiers and have it reviewed by the Council – B. Andres, by 7 Sep 2011.

ACTION: Produce state-level maps of designated areas, using EPA's Level IV Ecoregions and send for review by state biologists and JV Science coordinators – S. Fellows/B. Andres, by 15 Sep 2011.

ACTION: Forward new maps, as a shapefile, to NAWCA administrators – S. Fellows/B. Andres, by 15 Nov 2011.

Waterbird Proposal for a Joint Council

The USSCP Council received a proposal from Jennifer Wheeler, Initiative Coordinator for Waterbird Conservation for the Americas, to form a joint U.S. Shorebird-Waterbird Council. Although some efficiency could be gained through a joint structure, the Council felt that the different culture, focus, and messages of waterbird folks would likely dilute the conservation message for waterbirds/shorebirds. Although some members would likely participate in both Councils, the overlap was thought to be less than previously anticipated. The Council also believed there would be little overlap among members of the technical teams/committees already established under the USSCP.

That said, the USSCP Council believes there would be opportunities for collaboration on shared conservation and management issues once a U.S. Waterbird Council is formed. For example, greater communication among Councils and their staff could help elevate waterbird/shorebird needs to the U.S.-North American Bird Conservation Initiative (NABCI) Committee. The USSCP Council would certainly be willing to work with a U.S. Waterbird Council in developing technical tools and building relationships with habitat conservation groups, such as JVs. When possible, the USSCP Council will consider meeting with the U.S. Waterbird Council to allow for discussion of items of mutual concern. The upcoming Waterbird Society meeting in November 2011 may provide a forum to begin discussion of joint approaches to waterbird/shorebird conservation issues.

ACTION: Draft response letter to Jennifer Wheeler outlining concerns above – B. Andres, by 1 Sep 2011

State of the Birds

Catherine Hickey reported that the US-NABCI Committee decided to focus on implementation of the past State of the Birds reports rather than develop a new one on private lands for 2012. The feeling was there was too much bad news year after year and few of the recommendations were acted upon. A self-appointed Executive Committee is working an outreach plan. One target audience/venue is the Federal Migratory Bird Council, which are the Federal agencies who have signed Memorandums of Understanding with the U.S. Fish and Wildlife Service to fulfill commitments for migratory birds under Executive Order 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*. The Council meets on 21 September 2011.

ACTION: As a US-NABCI Committee member, request to review recommendations put forth by the State of the Birds Executive Committee to the Federal Migratory Bird Council – C. Hickey, by 14 Sep 2011.

Northeast Shorebird Conservation Plan revision

Brad Winn provided a brief overview of efforts to revise the North Atlantic Regional Shorebird Conservation Plan and expand coverage to the entire Atlantic Flyway, which is essentially the Atlantic Coast JV region. The justification for the revision is that 1) many shorebirds within the Atlantic Flyway are in a population decline, some at crisis level; 2) conservation efforts based on local and regional need have so far failed to stop these declines; and 3) there is a need for a new unified shorebird conservation strategy, incorporating the broadest spatial scale, the entire Atlantic Flyway. Therefore, a new strategy requires: 1) clear methods for how to implement recommended conservation actions (including funding), and metrics to determine the effectiveness of such actions; 2) agency (state, Federal) participation and implementation structures; 3) public understanding, perceived value, and support; 3) coordination among scientists, conservationists, and managers across the flyway, facilitating conservation at multiple spatial scales; and 4) adaptability to change with changing information/conditions on the ground. Partners from the Atlantic Flyway will be meeting 6-9 February 2012 to further develop the plan. Contact Brad Winn (bwinn@manonet.org) or Caleb Spiegel (caleb_spiegel@fws.gov) for further information.

ACTION: Bring attention to this effort at this year's AFWA meeting and request state involvement in the February meeting – B. Andres, by 10 Sep 2011.

Shorebird Status in Delaware Bay – Larry Niles

This summer marked a new turn in the 15-year old battle to protect Delaware Bay's population of horseshoe crabs and the migratory shorebirds that depend upon them. For better or worse, the Atlantic States Marine Fisheries Commission (ASMFC) adopted a new policy (called Addendum 7) thereby embracing the use of a complicated and untested model predicting sustainable levels of horseshoe crab harvest and an even riskier allocation scheme that loosens restrictions on industrial harvests of horseshoe crabs in Maryland and Virginia. The two moves will significantly increase the harvest of horseshoe crabs at a time when there are no objective signs of recovery in this long-suffering fishery. Adopting these risky policies at this increasingly perilous time for red knots and other shorebirds deepens the division between the two most important constituent groups in this decade-long battle to control the fishery resources of the Bay.

At first, it would appear the two groups are those seeking the long-term recovery of the shorebird stopover and the bay's fishermen wanting to earn a living. But a closer examination reveals this is really a battle of industrial fishing concerns that dominate the ASMFC and those concerned about the collapse of both the shorebird stopover and the bay's fishery.

The reason is the ASMFC's history of depleting fisheries for the sake of a strong commercial interest rather than imposing restrictions on everyone (larger commercial concerns and smaller local baymen) to prevent the destruction of species. Weakfish, the premier fish species of the bay, has been in long-term decline; some say never to return. Other sport fish like flounder or the migratory shad are not far behind. Atlantic sturgeon, once emblematic of a healthy bay system, are now gone and soon to be listed as an endangered species. All of this has occurred

while the ASMFC has repeatedly abandoned risk-averse actions so as not to risk the ire of corporate fishery concerns until collapse is imminent. The ASMFC's decision to curtail the menhaden fishery is only the most recent example.

Lauded a breakthrough, the ASMFC Menhaden Plan was medicine long avoided. This small, abundant fish is the breadbasket of most coastal fish species, and one company, Omega Protein protected by Virginia politicians (the company donated over \$55,000 to VA Governor Bob McDonnell), has overharvested it. The company processes the fish to satisfy a rapidly expanded market in fish oil, pet foods and cosmetics. When these unmanaged and short-sighted harvests reached the point where even non-scientists (as described in scathing articles in Salon and the Baltimore Sun) could see the impending collapse of all the fish depending on menhaden, then the ASMFC made its "breakthrough" to modestly restrict the harvest.

This is what is happening to horseshoe crabs. Risky moves are underpinning the corporate harvest of horseshoe crabs mostly for the sake of one company in Virginia who has significant political influence and is intimately familiar with members of the ASMFC horseshoe crab management board. At the behest of these corporate interests, the ASMFC approved two new adventures in fishery management. The first was a new statistical model (called the Adaptive Resource Management, or ARM model) that would predict the proper level of harvest of crabs that would not interfere with the recovery of the Delaware Bay shorebird stopover. The second undermines the ARM Model. It is a little-understood allocation scheme that effectively re-assigns Delaware Bay breeding crabs, that winter off the Atlantic coast of Maryland and Virginia, to some other unknown breeding area, thus freeing them from the harvest restrictions imposed by the ARM model. The ARM model could have finally removed from the ASMFC the nasty tendency to overharvest it charges, but the allocation scheme effectively neutralized it.

For those waiting for horseshoe crabs to return to the bay in numbers once seen in the past, the wait just got longer.

ACTION: Determine if ASMFC Shorebird Advisory Group reviewed Addendum 7 and provided comments to the Horseshoe Crab Management Board, specifically with regard to the change in designation of Delaware Bay crabs – B. Andres, 15 Sep 2011.

Demise of the Shorebird Populations in the East Asian-Australasian Flyway

Many shorebird populations are in decline across the globe, and nowhere is the demise of shorebirds more evident than in the East Asian – Australasian Flyway. This flyway links shorebird populations breeding in Siberia and Alaska to wintering sites in Southeast Asia, Australia, and Oceania. All of the Alaska-breeding Bar-tailed Godwits and Dunlin (*arcticola* subspecies) use this flyway, as do smaller numbers of Ruddy Turnstones and a few other species.

One of the critical shorebird stopovers in the flyway is the coastline of the Bohai and Yellow Seas. It is estimated that at least 2,000,000 shorebirds use the Yellow Sea region during northward migration, which represents approximately 40% of all the migratory shorebirds in the East Asian-Australasian Flyway. Virtually all of the Alaska-breeding Bar-tailed Godwits stop here en-route from Australia, where they are joined by large portions of the populations of

Siberian-breeding Great Knots, Asian Dowitchers, Eastern Curlews, and critically endangered Spoon-billed Sandpipers. The situation is so dire for Spoon-billed Sandpipers that a captive breeding program was initiated in 2011. Data from Australia indicates that some of these species have declined by more than 50% over the last 25 years.

One third of the Earth's human population live in Southeast Asia, and 600 million people live in the area around the Yellow Sea. Large-scale "reclamation" of intertidal mudflats for industrialization, agriculture, aquaculture and urban development has greatly altered coastal habitats used by migrating shorebirds. By 2009, land reclamation reduced wetlands in Korea by 70%, and 1,000 km² of land was reclaimed each year in China between 2006 and 2010 — these massive alterations are readily apparent on a Google Earth[®] image of the region. Because of the high population density and rapid development, the Yellow Sea is heavily polluted.

The identification and implementation of specific conservation actions that will result in positive population response is often difficult for long-distance shorebird migrants. However, the magnitude of the lost of feeding habitat in the Yellow Sea clearly present low risks for undertaking immediate and strong conservation actions that will greatly benefit migratory shorebirds and reverse their dramatic population declines. A few suggested solutions follow:

- 1) Chinese and Korean governments should be encouraged, both directly and through bilateral agreements with New Zealand and Australia, to support sustainable management of the important shorebird stopover and wintering sites by promoting strategic Integrated Coastal Zone Management, including the revision of reclamation policies. Sustainable coastal management will not only provide needed habitat for shorebirds but will also lead to a higher quality and healthier life for human coastal inhabitants. All Yellow Sea area governments should be encouraged to implement the management actions outlined in the UNDP/GEF project entitled "Reducing Environmental Stress in The Yellow Sea Large Marine Ecosystem".
- 2) The number of protected areas focused on important shorebird stopovers should be increased, such as the development of the Nanpu-Beipu International Reserve. Protection and management of existing sites should be improved by using national legal mechanisms and collaborative international mechanisms.
- 3) Alternative sources of protein should be found for villagers involved in the direct killing of Spoon-billed Sandpipers and other migratory shorebirds for food.

ACTION: Work with NGO partners to identify a strategy to elevate this issue within the U.S. Department of State – B. Winn, by 15 Sep 2011.

ACTION: Ensure the U.S. delegation to International Union for the Conservation of Nature's World Conservation Congress, held in the Republic of Korea September 2012, is aware of the shorebird issues in the Yellow Sea – B. Andres, by 31 Oct 2011.

San Francisco Bay Joint Venture Monitoring and Evaluation Plan

San Francisco Bay JV was seeking comments on their draft Monitoring and Evaluation Plan. Given the fairly short turnaround and the due-date overlap with the Western Hemisphere Shorebird Group meeting, broader input from USSCP Council members was not possible. However, Brad Andres provided comments before the 21 Aug 2011 deadline. The request for comments reached a lot of folks and Matt Reiter, PRBO Conservation Sciences, has been working with the JV on the plan's development.

Program for Regional and International Shorebird Monitoring (PRISM)

Matt Reiter, PRBO Conservation Sciences, is co-chair of the PRISM committee. A lunch meeting was held on Monday at the Western Hemisphere Shorebird Group meeting to discuss the future of PRISM. Goals of PRISM were re-defined in September of 2007 to: 1) identify species at risk (or "over-abundant" species); 2) contribute to the identification of causes of declines or other disturbing trends; 3) help develop, evaluate, and refine management/conservation programs; 4) document progress towards, or away from, management/conservation objectives; and 5) assist managers and policy-makers in meeting their shorebird conservation goals.

Stephen Brown gave a brief overview of PRISM, which grew out of the Canadian and US Shorebird Conservation Plans. A central tenet was the need to build programs that would dovetail to achieve common goal of monitoring shorebird populations. There may be lots of people out there that can and are contributing to PRISM, but we need to communicate about this program. PRISM is a concept supported by a community, and we should not keep monitoring in a box and develop specific actions when needed.

Role and Communication

Vision: Improve communication within PRISM and externally to maximize the effectiveness of shorebird monitoring activities.

What is needed?

- 1) Recommendations for monitoring at various scales to help with implementation in new areas, the fundamentals of a good monitoring program.
- 2) Several organizations/people are publishing "cook books" on monitoring (e.g., monitoring on large landscapes- Jon Bart, Waterbird Council from CWS). We need to provide information to practitioners who need the information. We need to develop a list of publications, protocols, and activities relative to PRISM objectives.
- 3) Need for data standardization across large scale shorebird monitoring programs that warehouse data in different nodes of the Avian Knowledge Network (e.g.

California Avian Data Center, Nature Counts, eBird) – PRISM could facilitate this.

- 4) There is a need to link these data across nodes, where appropriate to achieve PRISM objectives.

Web page as a warehouse of PRISM information

- 1) Embedded in the website of the Shorebird Working Group of the Americas (?), a new stand alone page (?) - Manomet communications director can oversee with input from PRISM chair.
- 2)
- 3) Identify audience: volunteers, each other, agencies, funders?

Discussion focused on how we can collectively address these goals and increasing communication of shorebird monitoring folks under the banner of PRISM.

Rob Clay, Birdlife International, discussed that the Neotropical Waterbird Census, coordinated by Wetlands International for 20 years, is being re-evaluated and expanded into Central America. This would be a good time to begin discussions about non-breeding waterbird/ shorebird surveys

ACTION: Finalize composition of PRISM committee – M. Reiter/G. Donaldson, by 15 Sep 2011.

ACTION: Develop a strategy to collectively achieve revised PRISM goals, including a description of PRISM and guiding objectives – M. Reiter/PRISM committee, by 30 Nov 2011.

ACTION: Solicit a volunteer to interface with team working on Neotropical Waterbird Census expansion – Mark Drever, CWS, was nominated to serve in this role, M. Reiter will follow-up with him, by 30 Sep 2011.

ACTION: Decide on location and structure of a website to house PRISM documents – M. Reiter, by 31 December 2011.

The Pacific Flyway Shorebird Survey

To obtain data to address the information needed to understand the effect on-going, large-scale changes to the habitat landscape (e.g., urbanization, rice flooding, wetland restoration efforts) has on the conservation of migratory shorebirds, PRBO Conservation Science initiated an annual Pacific Flyway Shorebird Survey (PFSS) during the winter of 2010-11 (please see <http://data.prbo.org/partners/pfss/>). The PFSS is multi-partner effort that will integrate both ongoing (e.g. at specific sites such as refuges or coastal estuaries) and newly established survey efforts for wintering shorebirds. Data will be collected by both professional biologists and volunteer scientists and will be aggregated through an online data entry portal in the California

Avian Data Center (CADC; <http://data.prbo.org/cadc/>). CADC is hosted by PRBO and provides a secure, well-tested platform for storing, managing, analyzing, and visualizing ecological monitoring data. Within CADC state of the art analytical approaches will provide partners with robust annual summaries of incoming shorebird data as well as interactive tools to visualize results, including population trends, spatial distribution of birds, and the relative abundance of birds by habitat type or location. The assimilation of data from multiple sources will provide the foundation to evaluate both local and large-scale population trends, and to inform shorebird conservation at multiple scales. Furthermore, the PFSS will provide needed data to guide resource allocations (e.g. water, habitat management) in California and the Pacific Flyway to manage shorebirds into the future. A meeting was held on Wednesday prior to the Western Hemisphere Shorebird Group meeting to discuss expansion of the project to sites from Peru to Alaska.

Arctic Shorebird Demographics Network – Stephen Brown

There is growing evidence that many arctic-nesting shorebird populations are declining in North America, but the factors limiting populations are poorly understood. We formed the “Arctic Shorebird Demographics Network” (ASDN), as a collaborative research group under the Shorebird Research Group of the Americas, to gather information on potential mechanisms behind shorebird declines that can be measured on the breeding grounds. This approach compliments Arctic PRISM, which estimates population sizes and trends of arctic-nesting shorebirds. Lead sponsors of ASDN field sites include: Kansas State University, Simon Fraser University, the U.S. Fish and Wildlife Service, the U.S. Geological Survey, the Wildlife Conservation Society, Manomet Center for Conservation Sciences, Environment Canada, Cornell Laboratory of Ornithology, Trent University, and the University of Quebec at Rimouski. We completed a pilot field season in 2010 at nine sites across the North American Arctic and a second field season in 2011, and plan to operate the ASDN for a minimum of five years. In 2010, we located 1,063 nests of 20 shorebird species, and banded 1,150 shorebirds of 16 species, and we will present comparable results from the 2011 field season. To better understand patterns in shorebird demographics, we are also collecting data on other environmental variables including alternative prey, invertebrate abundance, predators, and weather, with support from the Arctic Landscape Conservation Cooperative. The ASDN also supports additional large-scale collaborative projects like assessments of contaminants, genetic subdivision, migratory connectivity, avian health, and other projects on the ecology and conservation of arctic nesting shorebirds.

International Shorebird Survey Improvements

The South Atlantic Landscape Conservation Cooperative provided funding to improve the data management capabilities of the International Shorebird Survey (ISS). A new data portal should be up and running in the next year. We discussed the need to coordinate and integrated efforts of the PFSS, ISS, and the National Wildlife Refuges’ Integrated Waterbird Management and Monitoring Project.

For information on the USSCP, contact Brad Andres, National Coordinator, at 303-275-2324 or brad_andres@fws.gov. See <http://www.fws.gov/shorebirdplan/>