



Identifying Threats to Direct Strategic Action



Pacific Shorebird and Wetland Bird Conservation

Migratory shorebirds traverse thousands of miles across the Western Hemisphere and are reliant upon a network of coastal and interior wetland ecosystems. The Pacific Coast of the Americas (Figure 1) supports entire populations of neotropical migratory shorebird species during winter (November-February). Wetlands stretching from western Alaska to southern Chile are critical for the survival of these birds, including 15 Western Hemisphere Shorebird Reserve Network sites in NW Mexico. Current research indicates populations of shorebirds are declining (Andres et al. 2012) but the causes of these changes are not well understood (Reiter et al. 2020).

The lack of broad-scale coordinated monitoring for Pacific Flyway shorebirds has limited our ability to effectively manage their populations particularly considering the predictions of climate change, which will likely alter habitat conditions (e.g. sea-level rise, reduced wetlands due to drought). In 2011, in collaboration with the Copper River International Migratory Bird Initiative and over 100 individual and organizational partners, the Pacific Flyway Shorebird Survey (PFSS) and then the Migratory Shorebird Project (MSP) began an effort to fill gaps in Pacific Flyway population status and trends and identify threats and priority areas for conservation and management action. The work will help identify priority wetlands, guide adaptive management, and educate individuals, communities, and governments about the importance of their wetland resources and their connectivity with people, via shorebirds, throughout the Americas. These programs now collect standardized bird and habitat condition data on over 2.5 million non-breeding waterbirds from 14 countries annually.



Project Goal: to improve the efficiency of conservation and management for coastal wetlands, shorebirds, waterbirds and waterfowl in Mexico through the integration of data and prioritization in decision-making.

Figure 1: Stylized Migration Routes of Shorebirds and Important Wetland Sites (black dots).

MIGRATORY SHOREBIRD PROJECT'S 10TH ANNIVERSARY

Monitoring is a critical component of any conservation project. The most extensive shorebird monitoring program in Mexico, the MSP, celebrates its 10-year anniversary. The MSP allows managers to measure changes in the number and condition of shorebirds but also other waterbirds and waterfowl, detect threats to birds and their habitats, and evaluate the success of management actions. Because shorebirds migrate the MSP collaborates with partners that monitor shorebirds and their habitats at important sites in the 13 countries of the Pacific Migratory Corridor, from Alaska to Chile.



Vision: Healthy and sustainable populations of migratory birds throughout the Western Hemisphere that are enjoyed for generations to come.

Mission: Encourage and facilitate state fish and wildlife agency participation in conservation projects for shared priority birds in Mexico, Central America, South American and the Caribbean.

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ON THE GROUND PARTNERS

- Terra Peninsular (Mexican non-profit organization committed to preserve and protect the natural ecosystems and wildlife by focusing environmental conservation work in northwestern Mexico.)
- Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE) (Created in 1973 by Mexico's federal government, CICESE has become, one of the most important research centers in the country.)

ON THE GROUND PARTNERS (CONT.)

- Point Blue Conservation Science
- U.S. Forest Service International Program

STATE FISH AND WILDLIFE AGENCY PARTNERS

- Arizona Game and Fish Department
- California Department of Fish and Wildlife
- Pacific Flyway Council

PROJECT HIGHLIGHTS

- Conducted midwinter Pacific Brant surveys in all major wintering sites in northwest Mexico for the last 10 years (2012-2021).
- Conducted annual non-breeding midwinter shorebird surveys at 21 sites across northwest Mexico (Figure 2).
- Conducted snowy plover, American oystercatcher, and California least tern surveys.
- Conducted public outreach through a live Facebook event (more than 7,800 views), a Migratory Bird Day celebration, and a story about snowy plovers.
- Collaborated with the local hunting organization of San Quintín “Los Volcanes” to reduce illegal hunting and human disturbance and make harvest more sustainable.
- Installed predator excluders and a temporary fence on Punta Banda beach to protect shorebird nests.
- Partnered with the local municipality to obtain a federal concession giving it, the legal authority, to control disturbance and promote best management practices on beaches.

Species Impacted: 3 to 21 SGCN species in AK, AR, CA, CO, ID, MT, NV, NM, OR, UT, WA, and WY including long-billed curlew, mountain plover, snowy plover, Pacific brant, lesser scaup, American white pelican, redhead, and more.



MOVING FORWARD, FUNDING WILL SUPPORT:

- non-breeding bird surveys of 21 wetland sites across NW Mexico;
- conservation and management of designated wildlife conservation units (UMAs), in collaboration with local hunting organizations;
- work with an irrigation district to implement management practices that support waterfowl conservation;
- monitoring of breeding and wintering snowy plover at six sites;
- education/outreach and training activities such as the “Share the Beach” outreach campaign; and
- build an interpretive trail in the Punta Mazo nature reserve to educate visitors about the importance of mud flats, dune systems, sandy beaches, and rocky cliffs for migratory birds.



Figure 2 : Location of 21 coastal wetland sites which are part of the PFSS in NW Mexico.

REITER, M. E., E. PALACIOS, D. EUSSE-GONZALEZ, R. JOHNSTON, P. DAVIDSON, D. W. BRADLEY, R. CLAY, K. M. STRUM, J. CHU, B. A. BARBAREE, C. M. HICKEY, D. B. LANK, M. DREVER, R. C. YDENBERG, AND R. BUTLER. 2020. A monitoring framework for assessing threats to nonbreeding shorebirds on the Pacific Coast of the Americas. *Avian Conservation and Ecology* 15: 7.