



Migratory Shorebird Project: Annual Progress Report July 2016 – June 2017



Compiled by
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General Developments:

- Completed sixth year of surveys at some sites (November 2016 – February 2017) in North America and the fifth in South America.
- Worked to establish coordination between Migratory Shorebird Project and Central American Waterbird Census.
- Reestablished surveys in El Salvador, Honduras, Nicaragua and Costa Rica.
- Held the first Migratory Shorebird Project Science Summit at the Point Blue headquarters in Petaluma, California. The Summit provided significant guidance for moving the MSP science towards publication and application to flyway conservation as well as assurance that many of our original research ideas are successfully being addressed and are relevant as we implement the MSP across the landscape.

Distribution of survey locations as part of the Migratory Shorebird Project.



- Migratory Shorebird Project Science Summit in Petaluma, California, invigorated Project science and set path forward for next 5 years.
- Added surveys from Chile into the Project and developed CADC project to support data integration.
- Migratory Shorebird Project highlighted as integral to providing data to track the success of the Pacific Americas Shorebird Conservation Strategy.
- Led workshop to help establish more coordinated data collection and management protocols to enable different monitoring programs to contribute to addressing broad scale objectives for understanding shorebird population change.
- Identified possible collaborations with Florida Non-breeding/winter Shorebird & Seabird Monitoring and Audubon's Coastal Bird Survey on the Gulf of Mexico (<http://www.audubon.org/content/audubon-coastal-bird-survey>) monitoring networks that may serve as pathway to completing most of the sampling frame for Western Sandpiper.
- Visited field sites and partners in Honduras, Nicaragua and Costa Rica. Met with shrimp and salt producers as well as University and government officials at the U.S. embassy in Managua, Nicaragua.
- Presented Project status and solicited feedback from CRIMBI (Copper River International Migratory Bird Initiative) partners in San Francisco, California.

Canada

Personnel involved (organization/institution)

- David Bradley (Bird Studies Canada); Program Manager
- Karen Devitt (Bird Studies Canada); Program Coordinator
- Catherine Jardine (Bird Studies Canada); Data Analyst

Field Surveys

- 224 sites surveyed by 393 volunteers in 2016-2017. Fifteen new volunteers were recruited, and three new sites were added.
- Survey protocols were reviewed and updated versions were posted to the program webpage.
- Assisted with the development of a new Coastal Waterbird Survey club for youth on Haida Gwaii.
- The trend analysis was updated to include all shorebirds counted from 1999-2016 and is being prepared for publication in 2017.
- Contributed data to Environment and Climate Change Canada (ECCC) to update “The birds of the Fraser River delta: populations, ecology and international significance report.”
- The annual newsletter was distributed to volunteers and is available online at <https://www.birdscanada.org/library/bccwsnews.pdf>
- Shared all data with ECCC. Also shared data with environmental consultants and NGOs.
- Incorporated data entry portal into [NatureCounts](#) to enhance data sharing and management. Data were requested and approved for use by students, environmental consultants, ECCC and NGOs.
- A revised hot spot analysis is planned for 2017 to update maps produced in 2012. These maps will highlight areas of importance for guilds of coastal waterbirds weighted by abundance.

Workshops & Presentations

- Delivered public presentations and training sessions in Parksville, Tofino and Vancouver.
- Presented trend data at a workshop conducted by the Georgia Straight Alliance, which will be incorporated into their State of the Waterfront report.
- Presented results of 1999-2016 surveys to a community group in West Vancouver.

United States

Also see www.pointblue.org/pfss for more detail on the US contribution and the Pacific Flyway Shorebird Survey.

Personnel involved (organization/institution)

- Matt Reiter (Point Blue Conservation Science); MSP Steering Committee Chair
- Catherine Hickey (Point Blue Conservation Science); Conservation Director
- Blake Barbaree (Point Blue Conservation Science); Pacific Flyway Shorebird Survey Coordinator
- Dave Shuford (Point Blue Conservation Science); San Francisco Bay/Salton Sea Survey Coordinator
- More key leaders and partners:
<http://data.prbo.org/apps/pfss/index.php?page=volunteer>
<http://data.prbo.org/apps/pfss/index.php?page=partners>

Field Surveys (United States)

- Surveys of 24 coastal estuaries and 66 routes of interior wetland and agricultural habitat throughout California, Oregon and Washington, 15 Nov 2016 – 15 Jan 2017
- Data collected by >35 partners from federal and state agencies, universities and NGOs and >300 volunteers
- Counted >400,000 shorebirds.
- Implemented new survey designs at Fern Ridge Reservoir in the Willamette Valley of Oregon and at Guadalupe-Nipomo Dunes National Wildlife Refuge in coastal California.
- Expanded survey of the Los Angeles River to include Sepulveda Dam area.
- Helped coordinate surveys across 12 countries.

- Developed new CADC project for coastal migration surveys at Siuslaw National Forest in Oregon. Pilot surveys completed April – June 2017.
- Data centralized in CADC.

Workshops & Presentations

- Hosted Migratory Shorebird Project Science Summit in Petaluma, California – October 2016.
- Represented MSP at workshop to develop the Coastal Solutions Fellows program in Panama City, Panama – June 2017.
- Coordinated three meetings of the Project steering committee.
- Coordinated workshop of leaders of seven multi-national waterbird monitoring programs to develop common standards for monitoring shorebirds and managing data to achieve common knowledge objectives.

Science

- Developed data to analyze spatial distribution of shorebirds along the Pacific Coast of the Americas from Mexico to Peru.
- Developed draft manuscript of Project framework and first complete 3 years of the Project (2013-2016).
- Initiated analysis of MSP data to understand impact of recent severe drought on shorebirds in the Central Valley of California.

Outreach / Education / Awareness

- Added “Data in Action” page to the Project website to highlight our successes in applying the data - <http://www.migratoryshorebirdproject.org/english/explore-data/data-in-action>
- Developed four outreach documents to highlight available data summary resources from the Migratory Shorebird Project, the applications of the data, and the partnership network.
- Conducted survey trainings for citizen scientists involved in three projects: Central Valley and San Diego, California, and Coos Bay, Oregon.

Levered Contributions

- \$225K (2-years) from the David and Lucile Packard Foundation
- \$45K from USFS International Programs
- \$3K from Mennen Environmental Foundation

México

Personnel involved (organization/institution)

- Eduardo Palacios (CICESE, and GANO); Project Coordinator
- Guillermo Fernández (UNAM, GANO); Sonora and Sinaloa Partner
- Cesar Guerrero Ávila (Terra Peninsular, A.C.); Executive Director
- Lucía Alfaro Rodríguez (Terra Peninsular, A.C.); Data entry technician

Field Surveys

- One winter survey during January 2017 conducted at 18 sites in NW Mexico (8 sites in the Baja California peninsula and 10 in the mainland) as part of ongoing CRIMBI WESA/DUNL monitoring project; 203 sampling units; data compilation, data entry and review ongoing. 50 volunteers engaged.
- Main species observed: Western Sandpiper, Dunlin, Marbled Godwit, Willet, Black-bellied Plover, Sanderling, Greater Yellowlegs, Dowitcher spp, Snowy Plover.
- The *Ostreros Group* (American Oystercatcher Working Group in Mexico) partners monitored AMOY at 24 sites in northwest Mexico. Support from Manomet and CICESE.
- GANO continued the Snowy Plover monitoring program in four sites of Northwest Mexico; during breeding and winter season. Support from Tracy Aviary (Utah).
- Additional monitoring data from studies on shorebird use of shrimp farms in Sinaloa is being compiled and entered into CADC. Data Provided by Guillermo Fernández.
- Conducted aerial survey of coastline in Baja peninsula, Mexico, to document shorebird distributions and collect habitat data for mapping coastal shorebird habitats in Central and South America.

Workshops & Presentations

- Palacios, E. 2016. States update: Mexico. Reunión Anual del American Oystercatcher Working Group. 15-17 Nov, 2016. Wachapreague, Virginia.
- Palacios, E. 2016. Nomination of Bahía Todos Santos as a new WHSRN site. Artic Migratoy Bird Initiative meeting. 26-28 Oct, 2016. Ensenada, Baja California.

Science

- Palacios, E., J. A. Castillo-Guerrero, D. Galindo-Espinosa, L. Alfaro, E. A. Amador, G. Fernandez, J. Vargas y X. Vega. 2017. Population status of American Oystercatchers (*Haematopus palliatus frazari*) breeding in northwest Mexico. *Waterbirds* 40:72-78.
- Lerma, M., J. A. Castillo-Guerrero y E. Palacios. 2017. Non-breeding Distribution, Abundance, and Roosting Habitat Use of the American Oystercatcher (*Haematopus palliatus frazari*) in Sinaloa, México. *Waterbirds* 40:95-103.
- Galindo-Espinosa, D., S. Gómez del Angel, M. Cruz-López, L. Ortega Solis, R.S. Quintero Félix, F. Puebla-Olivares, A. De Sucre-Medrano, E. Palacios & C. Küpper. 2017. Monitoring populations of Snowy Plover (*Charadrius nivosus*) in Mexico. Annual Report to Tracy Aviary Conservation Committee, April 2017. Mexican Snowy Plover Network (CHORLNEV). La Paz, B.C.S., 17pp + 6 attachments.
- Graduate Student: Jonathan Natael Vargas Vega. Maestría. Efectos del disturbio en la densidad y comportamiento de aves playeras. Programa: Maestría en Ciencias Marinas y Costeras. UABCS. Director: Eduardo Palacios Castro. Finished January 2017.
- Graduate Student: Salvador Gómez del Angel. Maestría. El efecto de la variación temporal del nivel del agua sobre la demografía a largo plazo del chorlo nevado (*Charadrius nivosus*) en Bahía de Ceuta, Sinaloa, México. Posgrado en Ciencias del Mar y Limnología. UNAM. Director: Eduardo Palacios Castro. In process.
- Graduate Student: Abril C. Heredia Morales. Maestría. Efecto del disturbio antropogénico en la densidad y actividad de aves playeras en la Bahía Todos Santos, Baja California, México. Posgrado en Ecología Marina, CICESE. Director: Eduardo Palacios Castro. In process

- Student: Estefanía Isabel Muñoz Salas. Bachelor's Thesis: Patrones de distribución y abundancia de tres especies de Scolopácidos grandes en la península de Baja California, México. Biología Marina, UABCS. Director: Eduardo Palacios Castro. In process.

Levered Contributions

Cash:

- \$ 30,000 from CCA to Terra Peninsular as part of the AMBI project to nominate important Red Knot sites to WHSRN and implement communication and conservations actions
- \$ 10,000 from Tracy Aviary to GANO to monitor Snowy Plovers on four sites during breeding and winter in Mexico.
- \$5,000 from Arizona Dept. of Game and Fish as part of Southern Wings Program

In-kind:

- CICESE, UNAM, Terra Peninsular, CIBNOR, UABC, UABCS, UAS shorebird research professors and research associated time (\$83K). NW Mexico Survey (\$20K ann. operating cost, 150 person-days survey time). LightHawk provided airplane time to support two aerial surveys to identify important shorebird areas (~\$10K value).

Central and South America

Personnel involved (organization/institution)

- Diana Eusse (Asociacion Calidris - Colombia); Central and South America Project Leader
- Victoria Galán y Alvaro Moises Calderon (SalvaNatura); El Salvador Coordinator
- John van Dort -Asociación Hondureña de Ornitología; Honduras Coordinator
- Salvadora Morales, Érica Reyes, Orlando Jarquin y Gustavo Sarria (Quetzalli); Nicaragua Coordinators
- Luis Sandoval (Unión de Ornólogos de Costa Rica); Costa Rica Coordinator
- Rosabel Miro, Karl Kauffman, Yenifer Díaz (Sociedad Audubon de Panamá); Panama Coordinators
- Ana Agreda (Aves y Conservacion); Ecuador Coordinator
- Cynthia Panta Ramos (Naturaleza y Cultura Internacional); Peru partner
- Fernando Angulo (Corbidi); Peru Coordinator
- Patricia Saravia, Juan Carlos Heaton (RN Paracas); Peru partner
- Ana Cecilia Rivas (APECO); Peru Partner

Field Surveys (South and Central America)

- Surveys of 43 coastal estuaries in 9 countries, between 15 Jan – 15 Feb 2017
- Data collected by >13 partners from federal and state agencies, universities and NGOs and >90 volunteers
- Counted >230,000 shorebirds.
- Chile started in Project with 3 new sites: estuary of the Maipo, Rocuant, and Chamizas Rivers
- Gulf of Fonseca was surveyed in a Trinational effort - 12 people were part of this survey
- Entered data into CADC. New sites 2017 in Perú, Ecuador and Golfo de Fonseca.
- Disturbance protocol: 2nd year
- Join with other initiatives: Atlas Aves Playeras de Peru , Atlas de Aves Playeras de Chile, Pacific Flyway Shorebird Strategy, Waterbird Census in Central America

- Aerial/boat surveys: Golfo de Nicoya Costa Rica and Gulf of Guayaquil Ecuador to better understand distribution and hábitat use.

Workshops & Presentations

- Many partners attended workshop of multi-national waterbird monitoring program in Panama City to seek ways to have greater impact with these survey through more collaboration and synthesis of data.
- Many partners were part of workshops to build The Pacific Americas Shorebird Conservation Strategy.
- Some partners attend North America Ornithological Congress -2016 with some results of MSP initiative.
- Attended CRIMBI/WHSRN Meeting in San Francisco April 2017

Science

- Relationship between shorebird size and minimum distance at which birds escape against disturbances In progress - PhD student R. Johnston
- Distributions models of eight shorebirds to identify of hotspots of abundance In progress – Eusse, Johnston and Reiter
- Estimated change in amount of habitat Mexico – Peru.

Outreach / Education / Awareness / Policy

- Estero del Delta Real, in Nicaragua is part of The Western Hemisphere Shorebird Reserve Network. Local government was part of the designation.
- Steering Committee visited some places the Golf of Fonseca in Honduras and Nicaragua and Gulf of Nicoya in Costa Rica. We talked with partners from each country from federal and state agencies, NGOs and salt producers.
- Festivals about shorebirds in Colombia, Ecuador and Peru
- Festival in Colombia is now in the web platform www.festiavesplayeras.net
- New publication about results in Bocana de Iscuandé Colombia., as part of a citizen science process