

The background of the slide features a flock of shorebirds, likely sandpipers, in flight against a clear blue sky. The birds are shown in various stages of flight, with their wings spread, creating a sense of movement. In the bottom right corner, there is a stylized graphic of two overlapping hills, one green and one blue, representing a coastal or wetland environment.

The Migratory Shorebird Project: Connecting Communities of the Americas through Research for Conservation

Matt Reiter, PhD

Research Director - Pacific Coast and Central Valley Group



Point Blue

Conservation science
for a healthy planet.

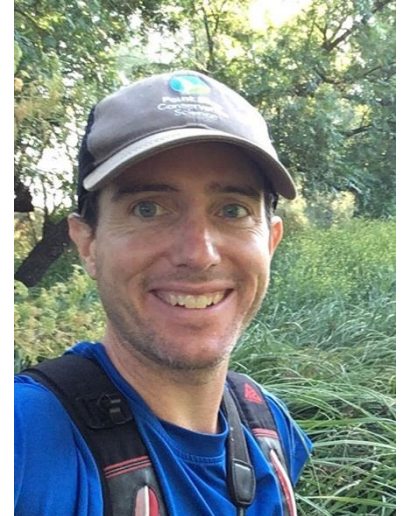
Point Blue

Conservation science
for a healthy planet.

- **160 passionate & dedicated scientists** on the ground and in partnership from Alaska to Peru, from the Sierra to the sea, and as far as Antarctica
- **Mission:** we work to advance the conservation of birds, other wildlife, and ecosystems through science, partnerships, and outreach
- **Founded in 1965** as Point Reyes Bird Observatory
- **SCIENCE** is at the core of everything we do



Our MSP Team



The Mystery of Migration



<http://www.tug44.org/wild.life/canada-goose/>



Sanderling and Long-billed Curlew



Black-bellied Plover



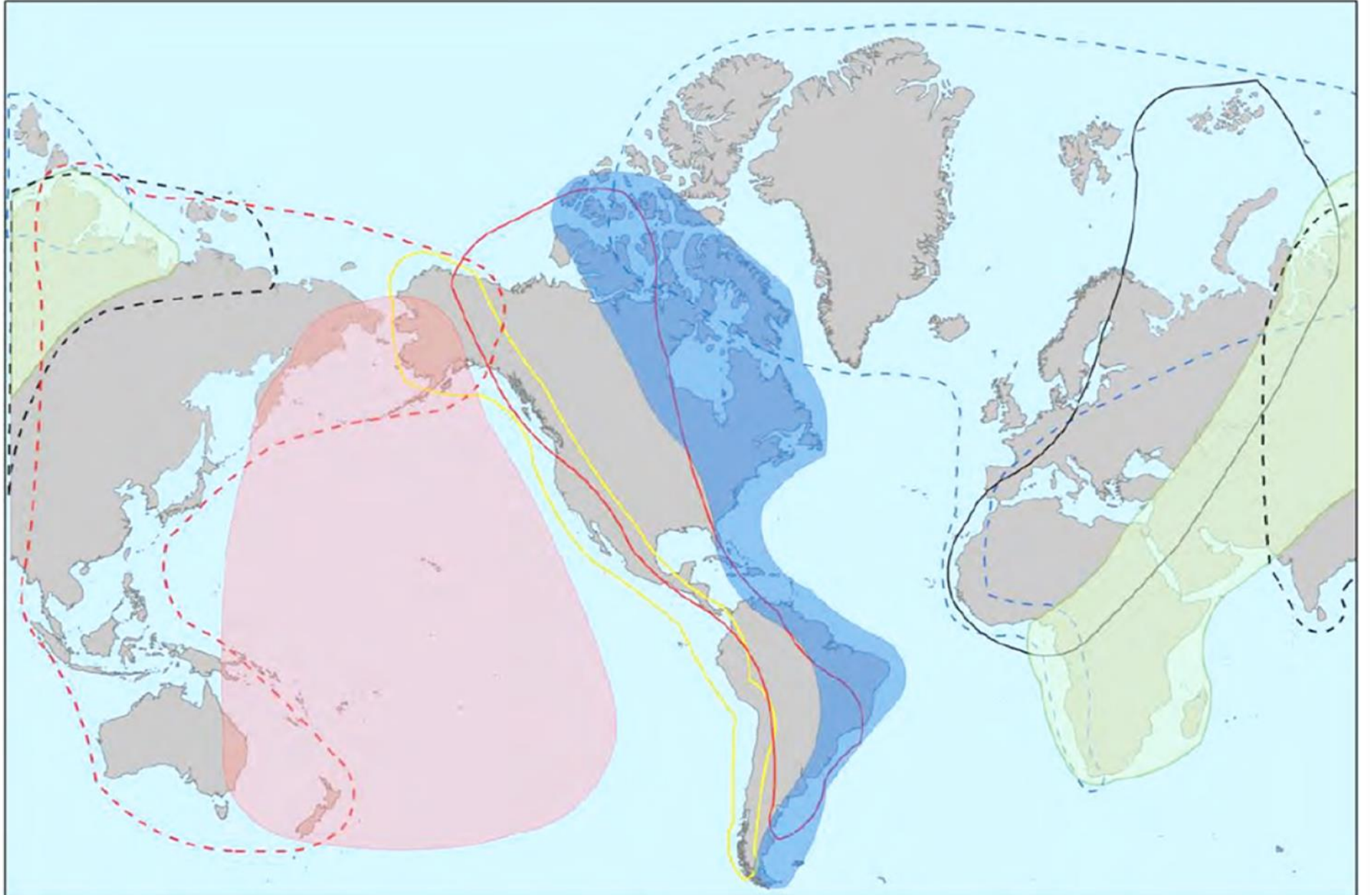
Western Sandpipers

© Steve N. G. Howell



Marbled Godwits and Willets

Shorebirds are Global Adventurers





WESTERN BIRDS



Volume 33, Number 2, 2002

ABUNDANCE AND DISTRIBUTION OF SHOREBIRDS IN THE SAN FRANCISCO BAY AREA

LYNNE E. STENZEL, CATHERINE M. HICKEY, JANET E. KJELMYR, and GARY W. PAGE, Point Reyes Bird Observatory, 4990 Shoreline Highway, Stinson Beach, California 94970

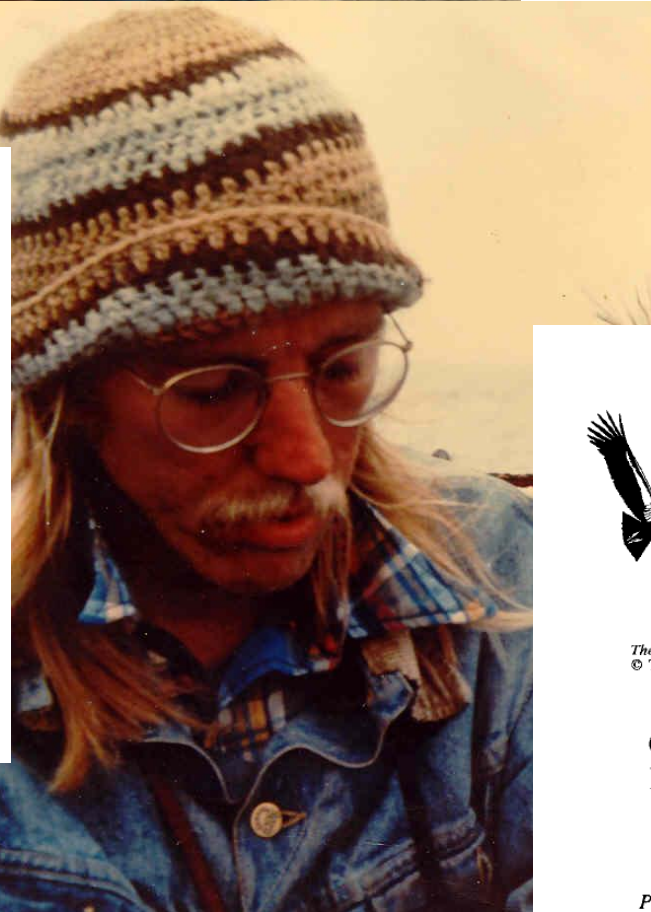
WESTERN BIRDS



Volume 20, Number 4, 1989

SEASONAL ABUNDANCE OF WATERBIRDS AT POINT REYES: A COASTAL CALIFORNIA PERSPECTIVE

W. DAVID SHUFORD, GARY W. PAGE, JULES G. EVENS, and LYNNE E. STENZEL, Point Reyes Bird Observatory, 4990 Shoreline Highway, Stinson Beach, California 94970



THE CONDOR

AN INTERNATIONAL JOURNAL OF AVIAN BIOLOGY

Volume 101

Number 3

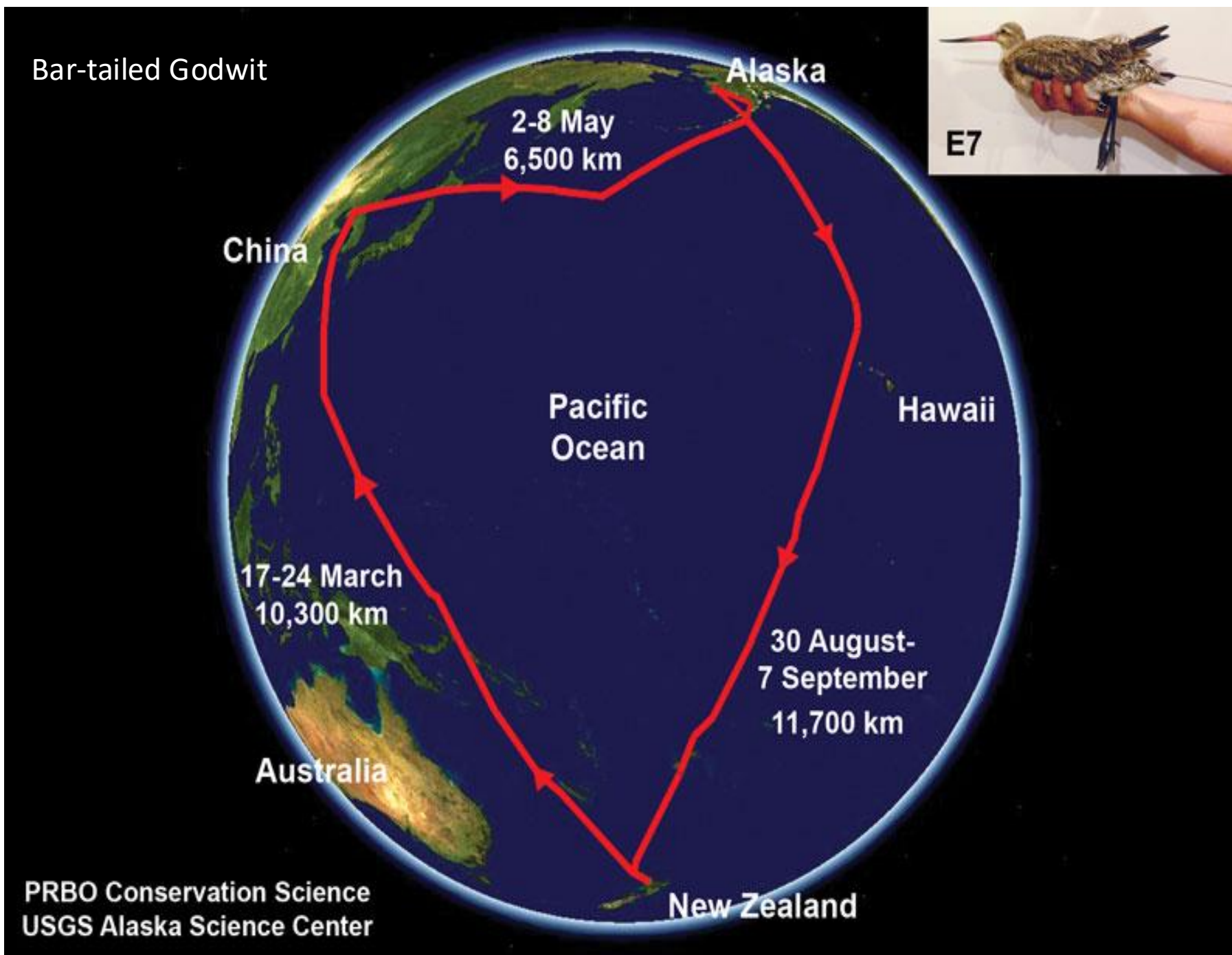
August 1999

The Condor 101:461-471
© The Cooper Ornithological Society 1999

OVERVIEW OF SHOREBIRD ABUNDANCE AND DISTRIBUTION IN WETLANDS OF THE PACIFIC COAST OF THE CONTIGUOUS UNITED STATES¹

GARY W. PAGE, LYNNE E. STENZEL AND JANET E. KJELMYR
Point Reyes Bird Observatory, 4990 Shoreline Highway, Stinson Beach, CA 94970, e-mail: gpage@prbo.org

Bar-tailed Godwit



Explore Bird Species →



Whimbrel

Numenius phaeopus

The most widespread of the curlews, nesting in the Arctic across North America and Eurasia, wintering on the coasts of six continents....
[Show more](#)

Conservation Statistics >

1 Related Story >

3 Available Maps v

Species Migration

Species Connections

Conservation Challenges

Species Migration Maps show the movements of a single species as it travels throughout the hemisphere each year.

[Learn more about this map >](#)

2 Related Links v

Whimbrel
Audubon Guide to North American Birds



Data Providers
This map shows tracks for 65 individual birds. Data generously shared by researchers from 15 studies, stored on Movebank and Motus. Hemispheric weekly distribution data from eBird at the Cornell Lab. Seasonal ranges derived from eBird and data from BirdLife International and Audubon.
[Learn more](#)

v3.1.9c1ffa62

Coasts Under Threat

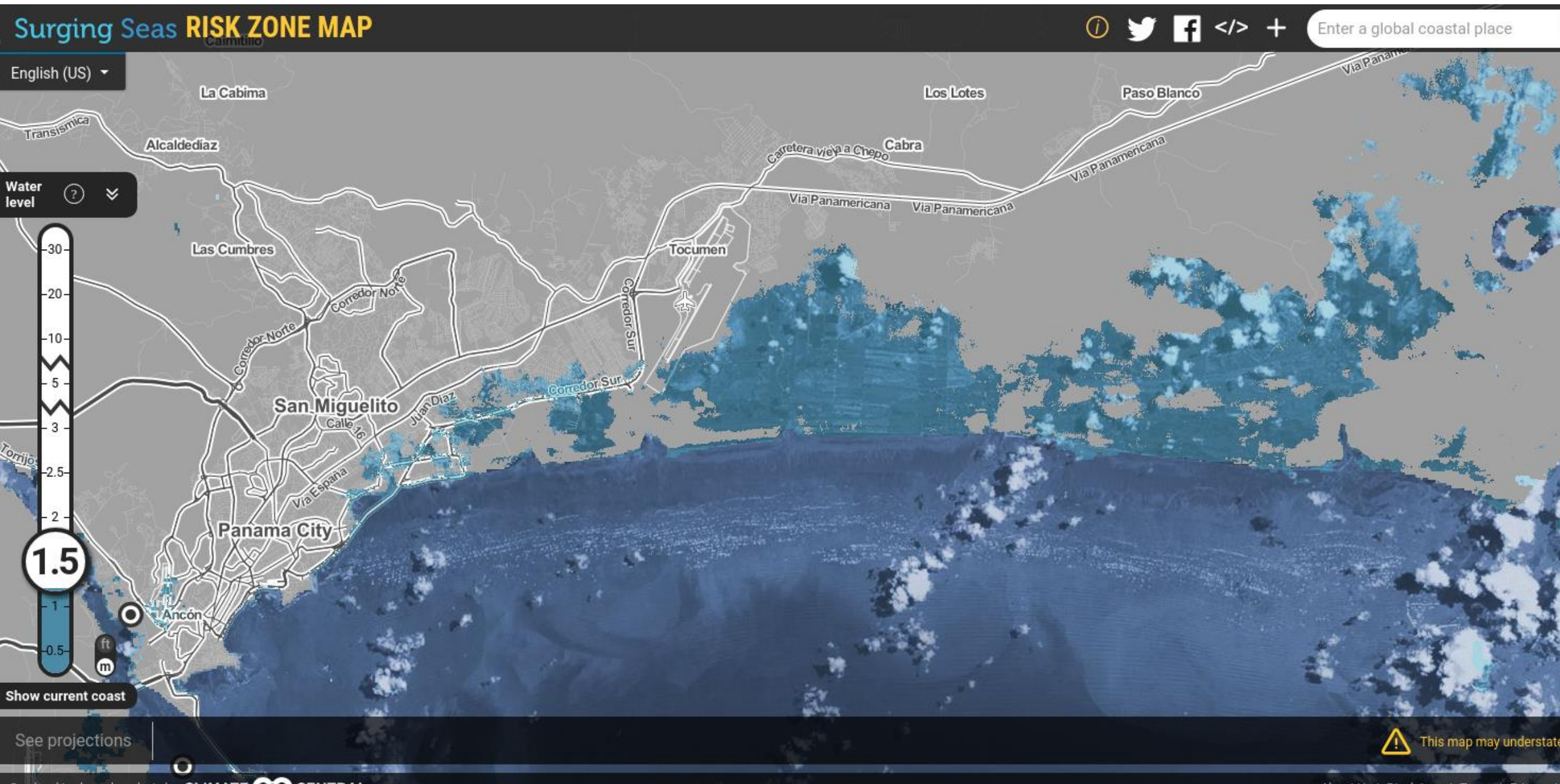


Things are changing...

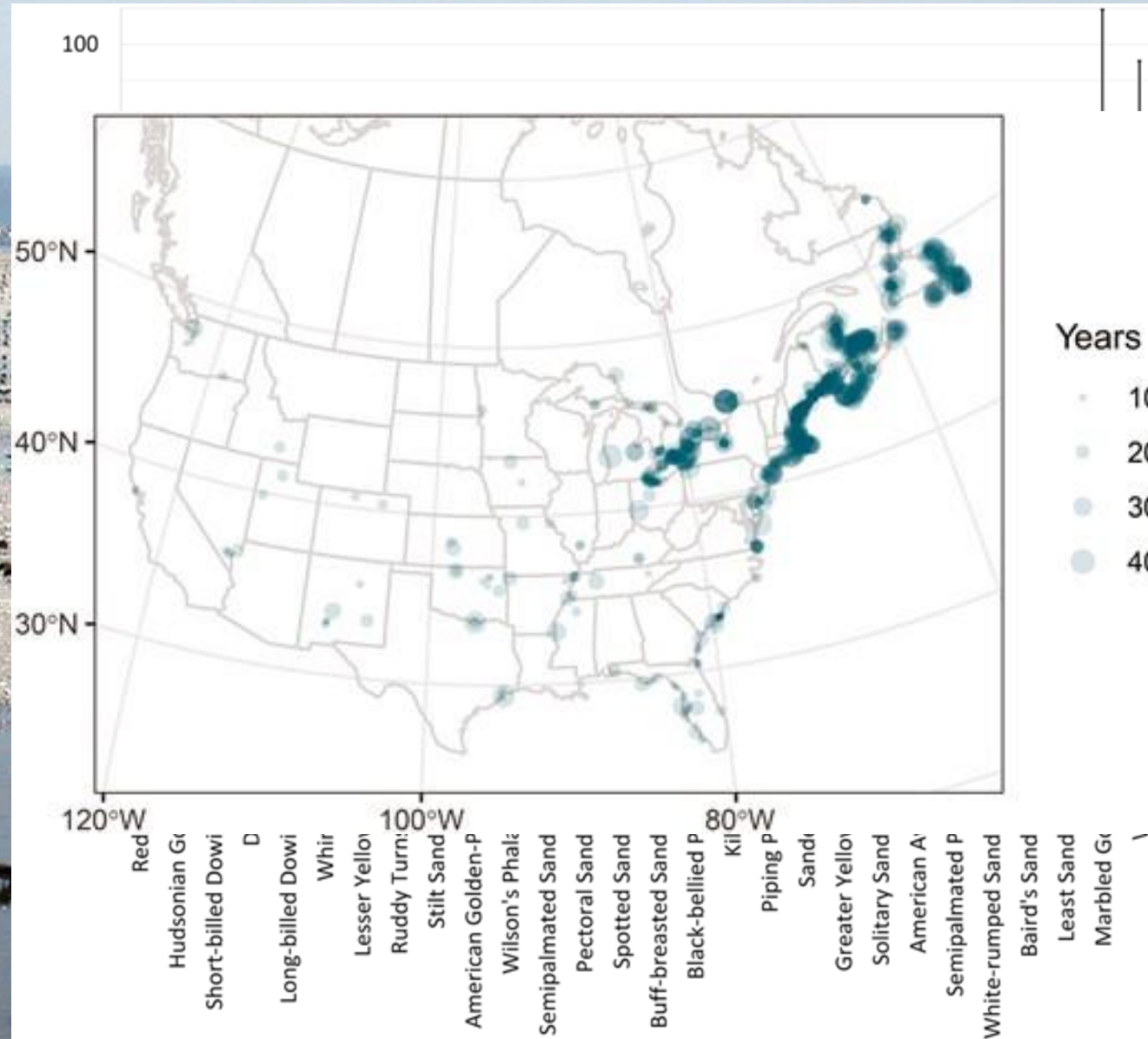
Surging Seas **RISK ZONE MAP**



Things are changing...



Shorebirds are Declining!



Our overall vision is a coordinated set of monitoring programs across the Pacific Flyway that provides a coherent view of shorebird population trends as a basis for guiding conservation priorities.



Migratory Shorebird Project

Connecting the Communities of the Americas through Conservation Science

Objectives

1. **Quantify trends** in the distribution and abundance
2. **Critically evaluate specific hypotheses** of threats
3. **Apply data to inform conservation**
4. **Increase capacity** for shorebird research and conservation



Migratory Shorebird Project

Connecting the Communities of the Americas through Conservation Science

Let's do the numbers...

50 partner organizations

13 countries

>100 wetland sites (>2000 units)

1.5 million birds per year

>500 volunteers and biologists

6 graduate students



The Places We Work



Puget Sound, Washington



San Francisco Bay, California



Panama City, Panama



Bocana de Iscuande, Colombia



Paracas NP, Peru



Chiloe Island, Chile

Connecting Data



Storage



Retrieval

Data Analysis

Dissemination

Explore Data

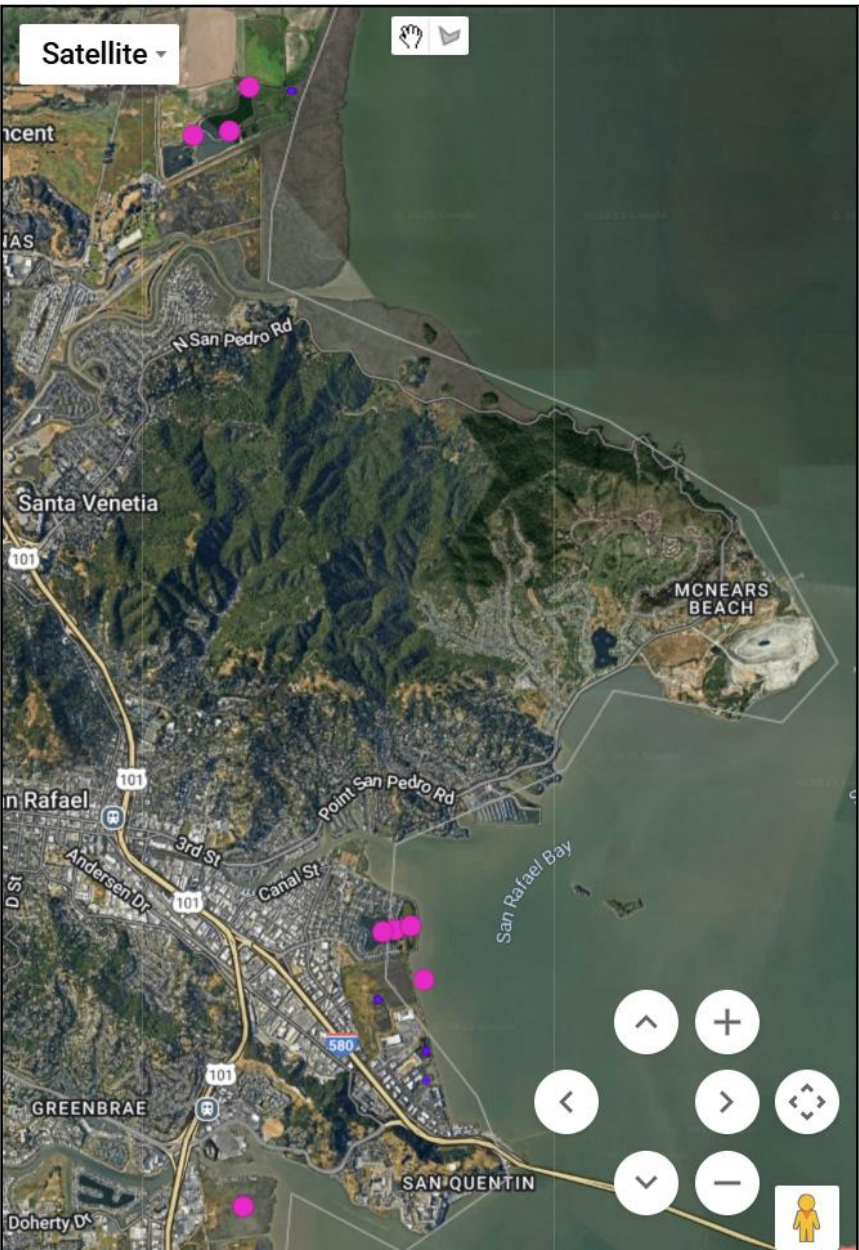
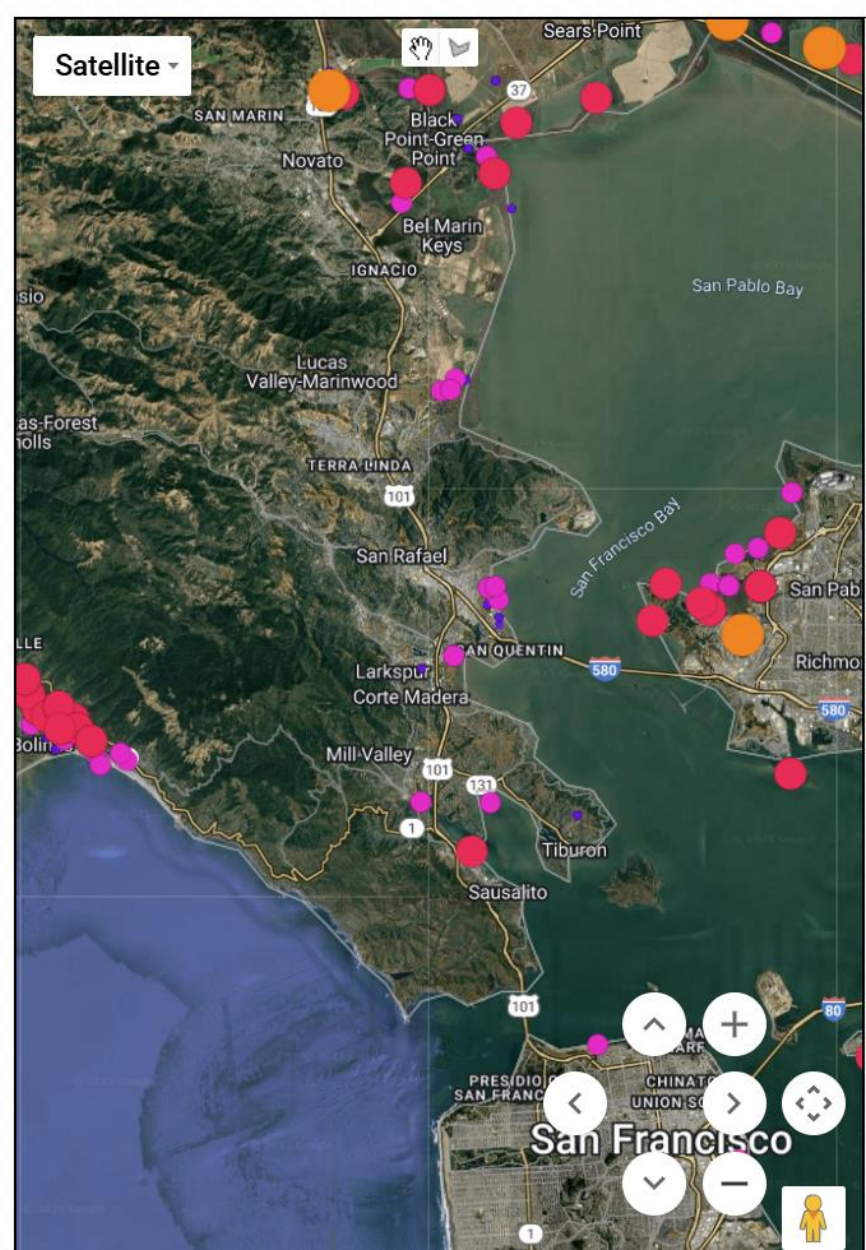
Map



migratoryshorebirdproject.org/explore-data/interactive-map/

INTERACTIVE MAP

INTERACTIVE MAP



[About These Maps](#)

Select a species from the map controls. Click on the center of a point to see a simple summary of avian observations at that location by year. Click within a summary area to see observations summarized for that area.

Choose a Species

All Species

Data Collection

☐ Shorebird/Raptor Observations (Mar–Jun)

☒ Shorebird/Raptor Observations (Nov–Feb)

Choose the Area to Summarize

☒ by State/Province (Canada/US/Mexico)

☐ by Country

Shorebird observation legend

○	0
●	1 - 10
●	11 - 100
●	101 - 1000
●	1001 - 10000
●	10001 - 50000
●	50000 +

Building Capacity

Survey training workshop
in Guatemala



Deepening Technical Expertise

Data analysis workshop
in Panama City, Panama
– October 2019



Building Constituencies for Action

Gulf of Guayaquil,
Ecuador – April 2019



Sharing Knowledge

Impact of Disturbance (Palacios et al. 2022)

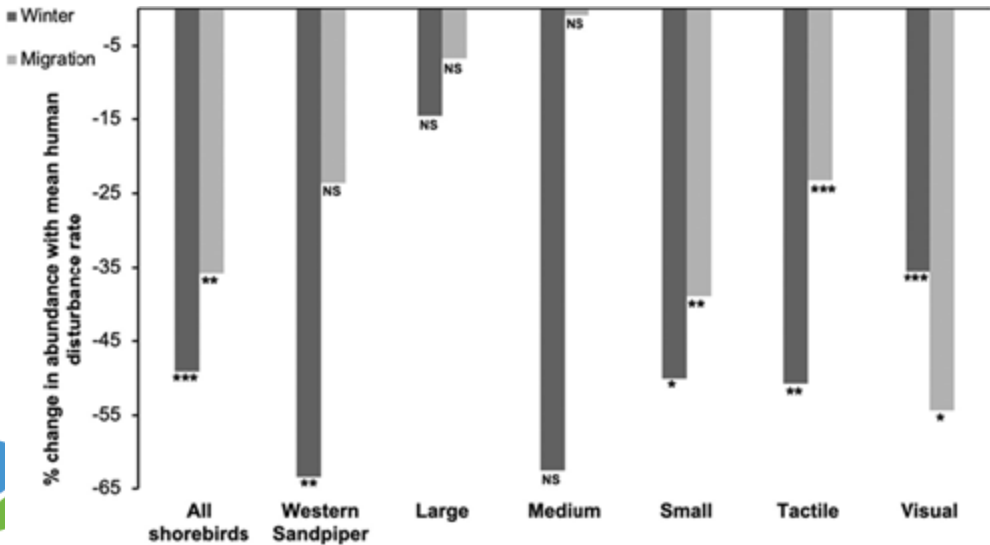
Received: 29 October 2021 | Revised: 19 May 2022 | Accepted: 28 May 2022
DOI: 10.1111/btp.13139

ORIGINAL ARTICLE

bioTROPICA ASSOCIATION FOR TROPICAL BIOLOGY AND CONSERVATION WILEY

Impact of human disturbance on the abundance of non-breeding shorebirds in a subtropical wetland

Eduardo Palacios¹ | Jonathan Vargas² | Guillermo Fernández³ | Matthew E. Reiter⁴



Population trends and drivers (Munoz-Salas et al. 2023)

Global Ecology and Conservation 46 (2023) e02557

Contents lists available at ScienceDirect

Global Ecology and Conservation

journal homepage: www.elsevier.com/locate/gecco



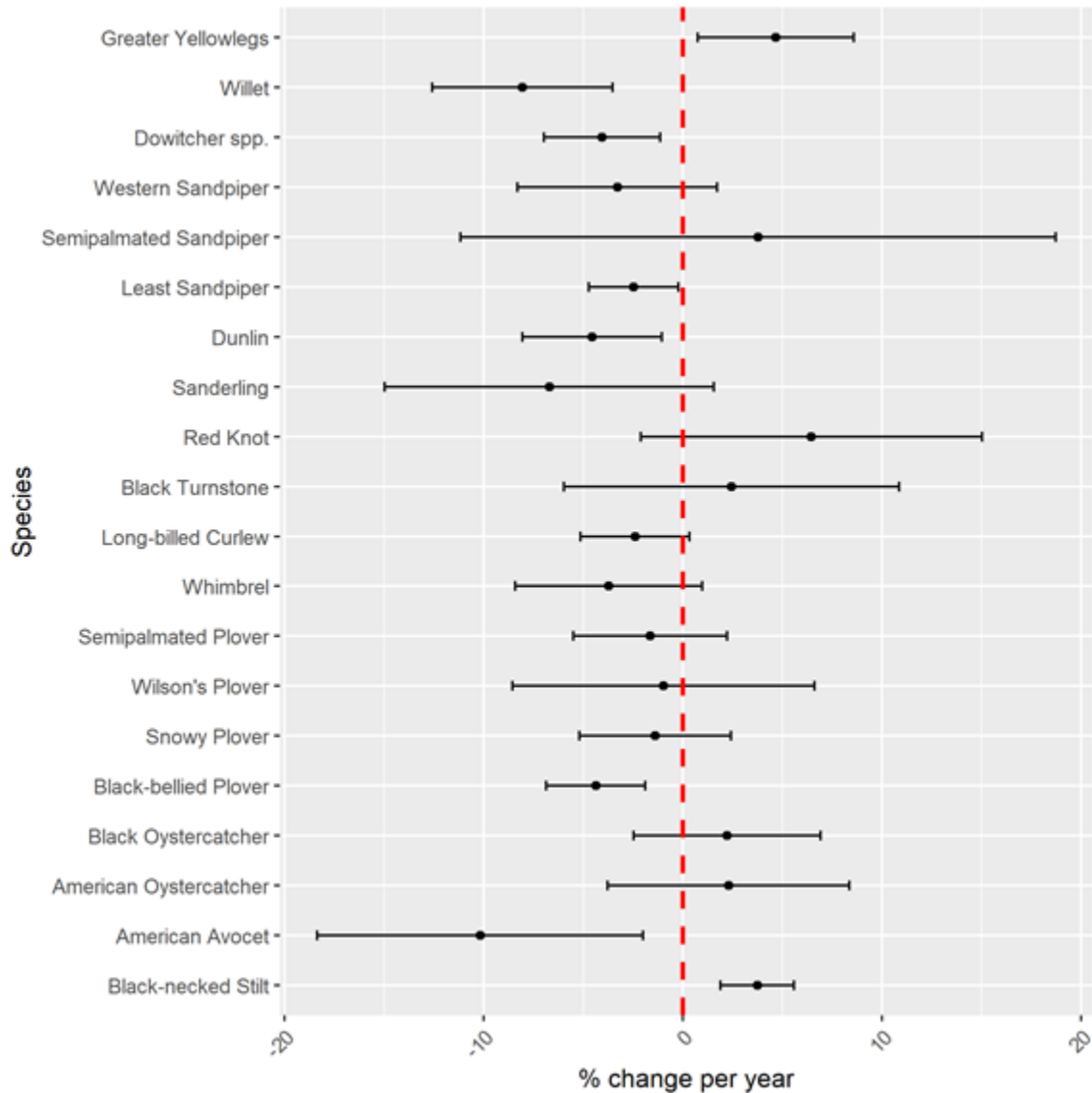
Winter population trends and environmental drivers for three species of temperate shorebirds

Estefanía I. Muñoz-Salas^a, Eduardo Palacios^{a,*}, Lucía Alfaro^b, Matthew E. Reiter^c

^a Centro de Investigación Científica y Educación Superior de Ensenada, Unidad La Paz, Miraflores 334, Col. Bella Vista, La Paz, Baja California Sur 23050, Mexico
^b Terra Peninsular, A.C., Calle Tercera No. 1282, entre Epinoca y Castillo, Ensenada, Baja California 22800, Mexico
^c Point Blue Conservation Science, 3820 Cypress Drive, Suite #11, Petaluma, CA 94954, USA

Species	Subarea	Slope β (% change)	95 % CI (% change)
Marble Godwit	West coast of North America	-0.08 (-7.7)	-0.1, -0.05 (-9.5, -4.9)
	California	-0.06 (-5.8)	-0.1, -0.01 (-9.5, -1)
	Sonora, Sinaloa and Nayarit	0.02 (2)	-0.06, 0.1 (-5.8, 10.5)
Willet	Baja California peninsula	-0.22 (-19.7)	-0.31, -0.13 (-26.7, -12.2)
	West coast of North America	-0.09 (-8.6)	-0.12, -0.06 (-11.3, -5.3)
	California	-0.07 (-6.8)	-0.2, -0.03 (-1.2, -3)
Long-billed Curlew	Sonora, Sinaloa and Nayarit	0.02 (2)	-0.04, 0.09 (-3.9, 9.4)
	Baja California peninsula	-0.24 (-21.3)	-0.31, -0.17 (-26.7, -15.6)
	West coast of North America	-0.02 (-2)	-0.06, 0.007 (-5.8, 0.7)
	California	-0.02 (-2)	-0.05, 0.02 (-4.9, 2)
	Sonora, Sinaloa and Nayarit	0.02 (2)	-0.06, 0.1 (-5.8, 10.4)
	Baja California peninsula	-0.06 (-5.8)	-0.13, 0.01 (-12.2, 1)

Strategizing Science to Understand Drivers of Trend



Reducing Human Disturbance



Wildlife Friendly Working Lands in Central America



Wildlife Friendly Working Lands in Central America

Salt Farm in Honduras



Salazar Family in Honduras

Sustainable Use Planning in Communities and National Parks of Colombia



Designation of Important Sites: Chile, Honduras, Peru, Ecuador

MSP data has been used to help designate 7 new WHSRN sites and 1 Ramsar Site in Peru

**PROYECTO DE
AVES PLAYERAS
MIGRATORIAS**

Conectando comunidades
de América

**MIGRATORY
SHOREBIRD
PROJECT**

Connecting communities
of the Americas



Species Status & Trend Assessments

PROYECTO DE AVES PLAYERAS MIGRATORIAS
Conectando comunidades de América

MIGRATORY SHOREBIRD PROJECT
Connecting communities of the Americas

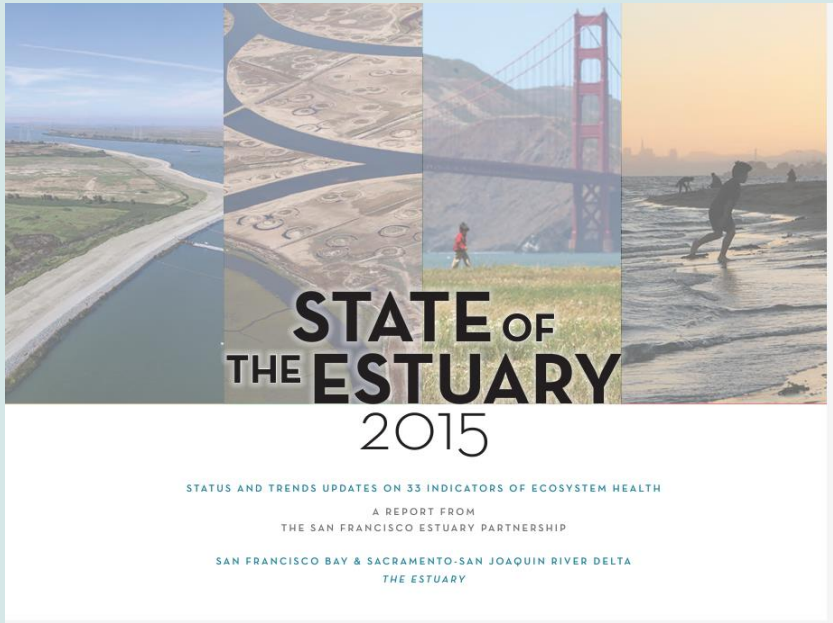


 **BirdLife International**

ABOUT HOW WE WORK NEWS ADVOCACY OUR SCIENCE SUPPORT US BECOME A MEMBER  

28 OCTOBER 2024

Press Release: New report reveals plummeting migratory shorebird populations globally



STATE OF THE ESTUARY 2015

STATUS AND TRENDS UPDATES ON 33 INDICATORS OF ECOSYSTEM HEALTH
A REPORT FROM
THE SAN FRANCISCO ESTUARY PARTNERSHIP
SAN FRANCISCO BAY & SACRAMENTO-SAN JOAQUIN RIVER DELTA
THE ESTUARY



 **COSEWIC**
Committee on the Status of Endangered Wildlife in Canada

COSEPAC
Comité sur la situation des espèces en péril au Canada



 **SWAP**
California State Wildlife Action Plan

MSP+ Science to Action Grants Program

Driving Multiple Benefit Conservation along the Pacific Coast of Latin America



Point Blue

Conservation science
for a healthy planet.



Point Blue
Conservation
Science

M S P +

Ciencia para la acción

Goal of MSP+ Science to Action



Invest funds in local people across the Pacific Flyway in Latin America to advance shorebird and multiple benefit conservation.

Through Support of ...

Conservation action, inclusive partnerships,
and planning

Improving conservation knowledge, data
management and knowledge sharing

Communication, outreach, and raising
awareness

Capacity building and training

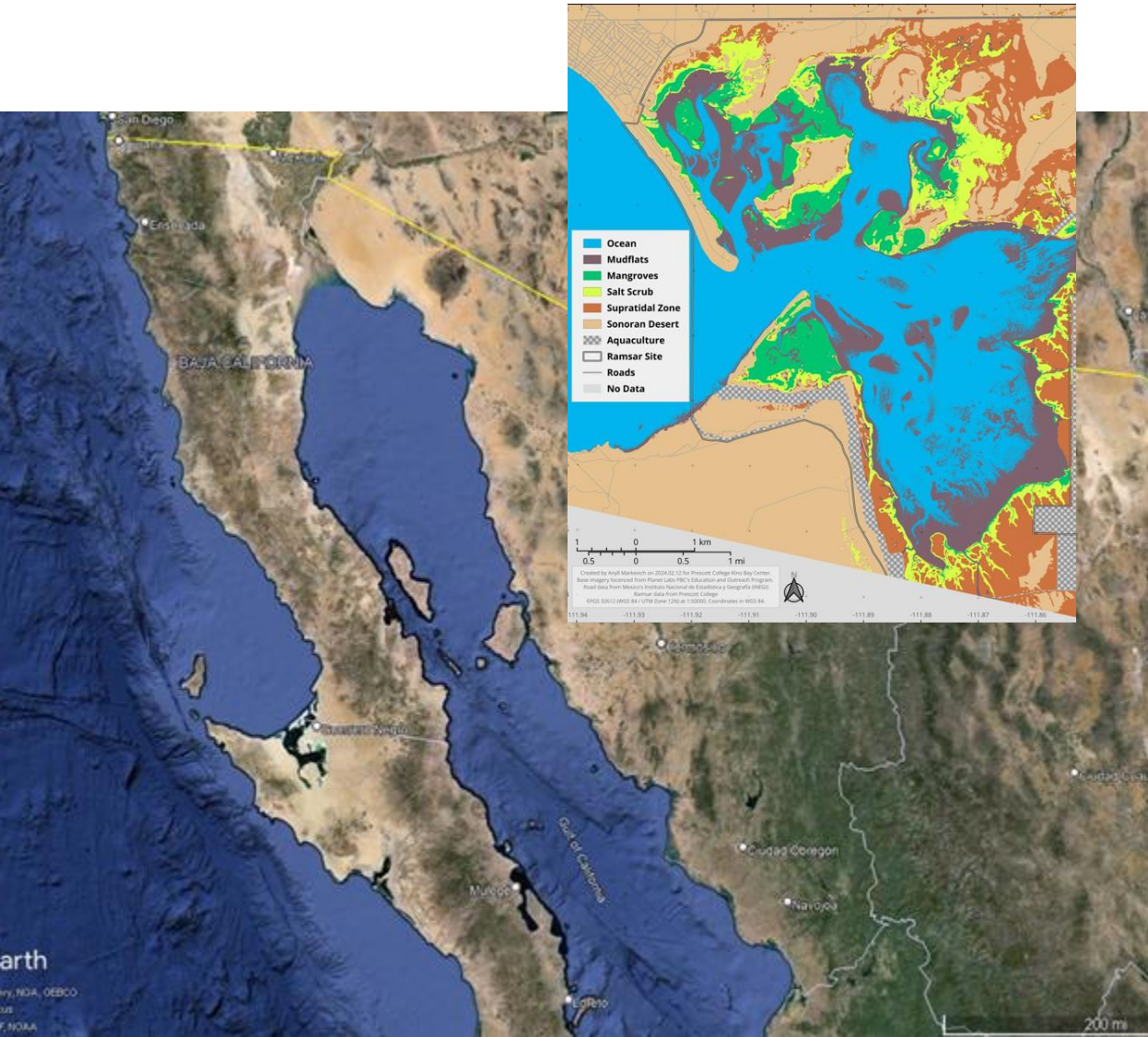


Workshop with children in salt ponds, Sipacate, Guatemala © FUNDAECO

Best management practices for threat reduction in shorebird habitats in Bahía de La Unión, El Salvador



Collaborative community action for migratory shorebird habitat protection in the central Gulf of California, México



Protecting Our Shorelines & Inspiring Conservation Action



Acknowledgments



the David &
Lucile Packard
FOUNDATION



MENNEN
ENVIRONMENTAL
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S. D. BECHTEL, JR.
FOUNDATION
STEPHEN BECHTEL FUND



MARCH CONSERVATION FUND

Bocana de Iscuande, Colombia

Thank You!

mreiter@pointblue.org

www.migratoryshorebirdproject.org

www.pointblue.org/support-us/how-to-give/

Fraser River Estuary, British Columbia, Canada