

## Indigenous and International Partnerships



**Our partnerships with indigenous peoples and international groups are essential to conserving threatened habitats and wildlife worldwide.**

The **Western Ecological Research Center (WERC)** is a USGS Ecosystems Mission Area center serving primarily California and Nevada. Through our partnerships with international organizations and universities, and indigenous groups, our research supports the study and conservation of threatened and sensitive habitats and wildlife across several continents.

As climate change and human development alter global ecosystems, international collaborations will become increasingly important for securing the world's biodiversity. WERC's partners include **Native American tribes, indigenous groups on Pacific islands, the Mexican government, scientists from overseas universities,** and U.S. agencies like the **Bureau of Ocean Energy Management (BOEM)** and **National Park Service (NPS)**. Each branch contributes unique scientific findings and perspectives on the effects of climate change, habitat loss, and invasive species in their local environments.

WERC's international projects cover topics such as golden eagle movements on U.S. and Mexican lands, the migratory behavior of endangered songbirds and seabirds, the success of restoration efforts in wetland and island ecosystems, parasites' role in ecosystems from West Africa to Norway, and efforts to identify plants most at risk across the California and Mexico Pacific islands. Together, our results can help inform conservation efforts, initiatives to build renewable energy infrastructure with limited effects on wildlife, and even issues of public health. Flip the page to learn more about WERC's current projects on these and other related themes.

### RESEARCH CONTACTS

Main Research Page  
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# WERC's Indigenous and International Partnerships



## BIODIVERSITY OF THE PACIFIC

**Robert Fisher** leads a research program spanning southern California, Mexico, and the Pacific Basin. His projects include:

- Member of an international team conducting biodiversity surveys across the Pacific islands of Samoa, Tonga, Nauru, Kiribati, the Solomon Islands, and Fiji.
- Assisting the U.S. Fish and Wildlife Service (FWS) to understand the recovery of Palmyra Atoll after rat removal.
- Conducting Fiji-wide ecological surveys to recommend conservation priorities, and monitoring the recovery and distribution of **critically endangered Fijian iguanas** in restored habitats on Monuriki Island.
- Partnering with San Diego tribes, the Mexican Government, U.S. FWS, BLM, NPS, and SanDAG to determine **golden eagle** movements across southern California and the U.S.-Mexico borderlands.

## FOOD WEBS IN WETLANDS

**Susan De La Cruz** and biologist **Isa Woo** collaborate closely with members of the **Nisqually Indian Tribe** and **Billy Frank Jr. Nisqually National Wildlife Refuge** to study the restoration of tidal wetlands surrounding the Nisqually River Delta, WA. Their studies assess connectivity within the wetlands' food webs and large-scale restoration effects on birds and fish. De La Cruz and Woo are also working with others to determine wetlands' role in absorbing and storing carbon in soils, and sea level rise's effects on this recovering ecosystem.



## ECOLOGY OF ENDANGERED SONGBIRDS

The **Least Bell's Vireo** is an endangered songbird that lives in riparian habitat in southern CA and MX. **Barbara Kus** works with researchers from the **Centro de Investigaciones Biológicas del Noroeste** to monitor the health and survival of Least Bell's Vireo and other sensitive bird species that migrate to Baja California Sur, MX, in the winter. Kus researchers endangered songbirds' response to efforts to reduce threats of invasive plants, brood parasitism, habitat fragmentation, wildfire, and climate change.

## MIGRATORY SEABIRD ECOLOGY



**Josh Adams** and geographer **Jonathan Felis** study the at-sea behavior of migratory seabirds, including **Pink-footed Shearwaters**, a species that breeds on islands off the Chilean coast before migrating to the U.S. west coast. This species is listed as "endangered" in Chile and "vulnerable" by the IUCN due to threats like invasive predators on breeding islands and fisheries bycatch at sea. Adams and Felis travel to Chile to attach satellite and GPS tracking devices to Pink-footed Shearwaters and map their movements off the Chilean and U.S. coasts. Their research supports BOEM's efforts to develop offshore **renewable energy** infrastructure with limited effects on wildlife.



## PARASITES ACROSS THE WORLD

**Kevin Lafferty** and partners study the role of **parasites** in different ecosystems across the world. Ongoing research projects include tests for effective methods for controlling schistosomiasis, a parasitic disease, in villages bordering the **Senegal River, West Africa**. Anemia, fatigue, and stunted growth are among the disease's side-effects. Lafferty's research has identified a freshwater snail as the host for the parasite that causes schistosomiasis, and has shown that reintroducing a native river prawn to the area may help suppress the disease in humans. Lafferty is also working with Norwegian scientists to assemble **food webs** in arctic lakes and has been studying food webs in estuaries throughout Baja California, Mexico.

## COLLABORATING FOR ISLAND CONSERVATION

**Kathryn McEachern** meets annually with the **Grupo de Ecología y Conservación de Islas (GECI)** to share her research on the Channel Islands National Park, CA. GECI is headquartered in Ensenada, Baja California, MX, and brings together scientists and land managers working throughout the greater California Islands archipelago. McEachern leads a team to identify the most at-risk plants across the archipelago, and advises a forest restoration project on Guadalupe Island, MX.

WERC's partners include: National Park Service • Bureau of Land Management • Bureau of Ocean Energy Management • U.S. Fish and Wildlife Service • Nisqually Indian Tribe • Billy Frank Jr. Nisqually National Wildlife Refuge • Grupo de Ecología y Conservación de Islas • UC Santa Barbara • Université Gaston Berger - Saint-Louis du Sénégal • University of the Arctic, Tromsø, Norway • University of Baja California • Oregon State University • Centro de Investigaciones Biológicas del Noroeste • San Diego Association of Governments (SanDAG) • Oikonos Ecosystem Knowledge