



prbo

PRBO Conservation Science



2007 Annual Report

Carolyn J. Johnson and Ellie M. Cohen.

PRBO photo



Partnering for Conservation

Understanding birds as indicators of ecosystem health has been at the heart of PRBO's work for more than 40 years. In a world where stresses on both the environment and the economy are great, PRBO's bird and ecosystem findings are increasingly in demand. Complex issues of our time, including climate change, habitat destruction and biodiversity loss, cannot be addressed by one agency alone. As highlighted in this Fiscal Year 2007-2008 Annual Report, PRBO continued its leadership in catalyzing innovative conservation partnerships and achieved significant results.

From studies of cross-hemispheric bird migrations and a seminal publication on seabirds as indicators of fisheries health, to riparian restoration and agricultural wetlands management rejuvenating diverse bird populations, PRBO collaborations provide creative, practical solutions to significant environmental challenges.

Wildlife and habitat managers as well as policy makers are increasingly requesting PRBO's science to guide conservation decisions. Our expertise was called to the fore during the November 2007 oil spill in San Francisco Bay that killed and debilitated tens of thousands of birds. PRBO scientists provided exceptional leadership within California's

Oiled Wildlife Care Network to understand and minimize the spill's impact on bird populations.

That devastating spill highlighted the decline of many bird populations. PRBO's long-term research, at the Farallon National Wildlife Refuge, Palomarin Field Station and other sites from the Mojave Desert to Antarctica, offers insights as to how we might reverse or slow these declines. The return of the endangered Least Bell's Vireo to the San Joaquin River National Wildlife Refuge—after a half-century's absence—exemplifies the enormous potential of science-based restoration partnerships. PRBO's expertise in long-term monitoring and adaptive management practices as well as non-traditional alliances and web-based information sharing are proving to be key to understanding declining species and enhancing the ecosystems we all rely on.

PRBO's science outreach, essential to our success, continues to expand in its breadth. Whether developing new private landowner bird habitat guides, motivating young people in multilingual trainings, or teaching recreational boaters to avoid impacts on seabirds, we continue to infuse students of all ages with a

passion for birds, ecological research and stewardship of nature.

To further PRBO's contributions in these times of rapid change, we are delighted to welcome Dr. John Wiens, an internationally renowned ecologist, as our first Chief Conservation Science Officer. We also offer our deepest gratitude to Rigdon Currie, Jack Ladd, Ewan Macdonald, and Stefan Williams who retired from the Board of Directors this year and who provided outstanding leadership over many years.

PRBO is stronger than ever—poised to address the challenges of our time—thanks to the extraordinary dedication and accomplishments of our scientists, support staff, Board of Directors, members, volunteers, and many partners. We are thankful for, and rely on, your continued generosity that makes PRBO's urgently needed work possible.

Carolyn J. Johnson
Chair, Board of Directors

Ellie M. Cohen
President and Chief Executive Officer

Bell's Vireo. The subspecies Least Bell's Vireo is federally endangered due to habitat loss and degradation, but is making a tentative return to habitat under restoration in California's San Joaquin Valley.

Bob Steele



2007 Findings and Accomplishments



Steve N.G. Howell (left), Jenny Ebes / PRBO (right).

Oiled Western Grebe. PRBO biologist Pete Warzybok holds a Northern Fulmar at the Oiled Wildlife Processing and Rehabilitation Center.



species. PRBO scientists also surveyed mainland beaches and Alcatraz and Southeast Farallon islands, as well as species of concern such as Snowy Plovers. The information gathered by PRBO and our partners will serve as a base for assessing the oil spill's impacts on birds.

Songbird, ecosystems, climate change. PRBO scientists are showing that conservation of riparian habitats can improve the capacity of ecosystems to respond to the Earth's changing climate. In partnership with public agencies, land managers and others, PRBO monitors songbirds and helps evaluate the success of habitat restoration efforts in California's Central Valley and the Sierra Nevada foothills. Symbolizing the return of native birds to restored habitat, in 2007 PRBO documented an endangered species, the Least Bell's Vireo, in a restoration site at the San Joaquin River National Wildlife Refuge. With impacts on water resources and ecosystems increasing due to climate change as well as land use, demand for PRBO riparian studies is growing. In related research, we examine how flooding and other processes linked to climate affect the riparian ecosystem and birds.

Oil spill response. After the freighter *Cosco Busan* struck the San Francisco Bay Bridge in November 2007, spilling 58,000 gallons of fuel oil during peak waterbird season, PRBO was on the front lines of the response effort. To gather key scientific data, our oil spill team, led by Diana Humple and Christine Abraham, worked under extreme conditions for weeks with the Oiled Wildlife Care Network. Biologists carefully documented effects on live and dead grebes, scaup, scoters and other bird



Yellow Warbler gleaning insects.

Tom Grey

PRBO brings a long history of science to bear on California's most pressing conservation issues and, as such, is an essential partner in delivering effective, long-term conservation.

Kevin Hunting, Deputy Director, Conservation Planning and Water Resources Division, California Department of Fish and Game

Salmon crash and seabird indicators.

Dramatic declines of Chinook salmon populations off the California coast resulted in complete closure of this fishery in 2008. Recent PRBO analyses demonstrate that breeding seabirds may be useful indicators of the ocean conditions affecting salmon, which could help predict future salmon returns. Staff scientist Jennifer Roth discussed seabirds, salmon, and the ocean in an essay published in the *Santa Rosa Press Democrat* (see www.prbo.org/inthenews).

Focus on climate change. The California Energy Commission selected PRBO to coordinate interdisciplinary studies on the biological impacts of climate change in California. PRBO scientists are working with board member Dr. Terry Root, a Stanford University professor renowned for research on the effects of global warming on ecosystems. PRBO coordinated research by 14 graduate students and post-doctoral scientists and is editing a collection of the findings.

Innovative partnerships for conservation. PRBO's Avian Monitoring on Private Lands program is part of a new conservation formula in California's Central Valley, where most remaining

wildlife habitat is privately owned. Landowners use federal and state incentives for habitat enhancement projects, and PRBO monitors the resulting changes in bird populations. In the southern San Joaquin Valley, we found 40,000 shorebirds on one 320-acre flooded field. In a restoration project near the San Joaquin River, we found a nesting pair of Yellow Warblers—once abundant in the region but rare today due to habitat loss. Congressional funders value such measures of conservation success as much as acres protected or dollars spent.

The power of information. A wealth of data and conservation applications, formerly locked up in computers, is steadily becoming available to habitat managers, policy makers, conservationists, researchers, students, and the public. PRBO's Informatics team has begun producing powerful online tools for accessing and using information about birds and their habitats. The California Avian Data Center—a new collaborative, web-based integration of datasets, incorporating two million bird observations so far—and tools such



Shorebirds flock to Central Valley wetlands. Rick Lewis.

as interactive maps are all designed to support improved conservation outcomes (see www.prbo.org/cadc).

Krill – base of the marine food web.

Dramatic fluctuations in the marine ecosystem have focused attention recently on the shrimp-like plankton known as krill. From seabirds to great whales, wildlife in the California Current relies for food upon krill. PRBO marine ecologists conduct ocean-going research, in cooperation with NOAA Marine Sanctuaries, to document links between oceanographic conditions and the living marine ecosystem. In early 2008, we found krill abundant in waters near the Farallon Islands for the first time in nearly three years—potentially good news for marine predators such as seabirds.

PRBO and other science-based NGOs are critical to the success of conservation programs on private lands: the data and expertise they provide help target conservation delivery and evaluate habitat programs.

Dave Smith, Coordinator, Intermountain West Joint Venture



Radio-tagging a long-billed Curlew in Oregon.

Nils Warnock / PRBO

Shorebirds send signals. Charting the previously unknown migration routes of large shorebird species is crucial for protecting their populations. Nils Warnock, PhD, and international colleagues worked with wintering Bar-tailed Godwits in Australia in 2007, placing lightweight, high-tech transmitters on two dozen birds that later took off for Siberia. They discovered that the Yellow Sea area is vital to Bar-tailed Godwits as a stopover site on their northward migrations. PRBO employs the same technology to study Long-billed Curlews' annual travels in North America. In winter and during migration, much of this species' entire world population may depend upon California's Central Valley, where curlews forage in fields that are flooded after the harvest.

Penguin survival. Adélie Penguins are proving remarkably flexible in the face of environmental change, as shown by PRBO collaborative long-term research. After five years of coping with giant icebergs that blocked their access to foraging areas, these small penguins have had two consecutive years of high breeding success. Adélies in the Ross Sea area enjoyed above-average productivity



Adélie Penguins must cross icy terrain that is subject to radical change. Grant Ballard / PRBO

in the 2007–08 southern summer, even though winds and snowfall were exceptionally heavy. Such conditions, a predicted consequence of global warming in this Antarctic region, actually benefit Adélies locally—at least for the present. As long as temperatures remain below freezing, windier conditions result in more extensive sea ice, critical foraging habitat for Adélie Penguins. Elsewhere in Antarctica, colonies have failed due to warming ocean and vanishing sea ice.

Landmark for California birds.

A thoroughly revised edition of *California Bird Species of Special Concern* (originally developed 30 years ago) will set clear conservation and research priorities statewide. PRBO's Dave Shuford and Tom Gardali, along with Lyann Comrack of California Department of Fish and Game, co-edited contributions from 48 experts. The book details 63 native bird species that require protection now in order to prevent challenging and costly declines. (www.dfg.ca.gov/wildlife/species/ssc/birds).

Surveying shorebirds. PRBO staff and volunteers conducted the fifth-ever comprehensive survey of shorebirds in San Francisco Bay and ten other coastal California estuaries in fall. Results add to our long-term assessment of the Pacific Flyway and its habitats. PRBO experts also participated with Audubon California in preliminary surveys of the Central Valley, to identify critical sites for wintering Long-billed Curlews.

Seabirds in a changing environment. Comparative seabird studies at several sites—estuarine Alcatraz Island, nearshore Año Nuevo Island, and the offshore Farallon Islands—enable



Pacific white-sided dolphins seen on a PRBO research cruise in the Gulf of the Farallones.

Sophie Webb

National wildlife refuges in California rely on PRBO's outstanding research and monitoring programs to inform our management decisions and support our conservation mission.

Marge Kolar, Assistant Regional Director of Refuges. USFWS Region 8 (California and Nevada)



Brandt's Cormorant chicks on Alcatraz Island in PRBO seabird monitoring. Sarah Acosta / PRBO

PRBO to understand marine ecosystem dynamics. Early in the 2008 breeding season, possibly related to record heat waves in May–June, numbers of Brandt's Cormorants were very low in colonies along the Central California coast and on Alcatraz Island in San Francisco Bay. This species first colonized Alcatraz in the 1990s following a shift in their food resources: rockfish drastically declined offshore; anchovy became more abundant inshore. PRBO studies of seabird populations as they are influenced by climate change can serve as an index of changing fish stocks and guide conservation efforts.

Snowy Plover recovery. In a promising move for Western Snowy Plovers, the U.S. Fish and Wildlife Service released a long-range plan that aims for a population large and stable enough by 2047 to warrant delisting this threatened subspecies. The plover's protected status was recently reconfirmed, thanks in part to PRBO's findings on the bird's nesting success in response to recovery efforts.

Getting the word out.

PRBO translates conservation science for a variety of end users. Recent products include: a brochure teaching boaters, hikers and pilots to avoid disturbing seabird colonies (which can result in total nest loss) in coastal California; a new *Pocket Guide to the Birds of San Francisco Bay*, with conservation tips; and the *Guide to Habitat Enhancement for Birds* in the Sacramento Valley, for landowners interested in practical methods for “bringing the birds back.”

Birds across borders. At “Tundra to Tropics,” the fourth international Partners In Flight conference, held in Texas, PRBO's 12-person delegation played a prominent role. Some 700 participants from throughout the Americas heard our scientists and educators discuss tailoring conservation plans to the local level, sharing and using bird data through the hemisphere-wide Avian Knowledge Network, and other ways of “connecting birds, habitats and people” — the conference theme.



Marine Protected Area.

A proposed reserve off California's north-central coast, under the state's Marine Life Protection Act, would aim for long-term protection of critical habitats and the recovery of at-risk marine species. The reserve would also surround the Farallon Island National Wildlife Refuge, home to a PRBO long-term research program, PRBO staff provided expert information on the ecological needs of marine wildlife in the Gulf of the Farallones to stakeholders developing recommendations for the California Fish and Game Commission.



Song Sparrow. PRBO works to help keep common birds common.

Tom Grey

Four decades on the Farallon Islands.

To mark the 40th anniversary of our Farallon Island program, PRBO friends hosted a gala Farallon Island “Blue Ball” at San Francisco’s Bently Reserve. PRBO has gained invaluable insight into the changing ocean and climate through continuous studies on Southeast Farallon Island, in partnership with U.S. Fish and Wildlife Service, since 1968. Supporters like those who attended our gala ensure the continuity of this valuable program.

Schoolchildren and birds.

Recognition and support are growing for PRBO to expand our bird science programs

for young students in the multicultural Canal District of San Rafael, California. PRBO education specialists work with neighborhood non-profit organizations and schools. They teach children in the classroom and the field about local birds, about data collection, and that birds are indicators of ecosystem and community health on and around San Francisco Bay.



Students in PRBO’s Bird Club prepare to record data on a specimen Wilson’s Warbler.

Missy Wipf / PRBO

World,” appeared in the *San Francisco Chronicle*.

Honors and awards. At the Bay Area Conservation Biology Society meeting in Davis, California, Nat Seavy, PhD, was an invited panelist on “Bridging the Gap Between Science and Management: How to Prioritize Conservation Actions.” In January, Dr. Seavy was appointed by the Society of Northwest Vertebrate Biology to be managing editor of the group’s monograph

publication, *Northwest Fauna*. Nils Warnock, PhD, served on the South Bay Science Team, Salton Sea Science Team, and the Oiled Wildlife Care Network. Melissa Pitkin, PRBO’s Education and Outreach Director, joined the Bird Education Alliance for Conservation, a new national working group for bird education, where she co-chairs the Conservation Issues Committee.

PRBO in the media.

National Public Radio’s “Climate Connections” interviewed PRBO biologists on the Farallon Islands about the links between seabirds and the changing ocean and climate. “Return to Penguin City,” an hour-long documentary about PRBO’s Ross Island studies of Adélie Penguins, aired on Animal Planet. An op-ed piece by Ellie Cohen, “Birds Warn of a Warming



Collecting data on Southeast Farallon Island. Inset: A juvenile northern elephant seal looks up from a tidepool near the island. Photos by Jenny Erbes / PRBO

PRBO is deeply grateful to our individual, foundation, and corporate donors.

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Forster's Terns. Tom Grey

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Affiliations. Organizations in which PRBO is an invited or elected member include: American Bird Conservancy, Avian Knowledge Alliance, Avian Knowledge Network, Bank Swallow Working Group, Bay-Delta Science Consortium, Bird Education Alliance for Conservation, Bolinas Lagoon Technical Advisory Committee, California Association of Winegrape Growers, California Partners in Flight, California State Parks Vehicular Recreation Areas (OHV) Review Panel, California Rangeland Coalition Research Committee, Canada-U.S. Shorebird Monitoring and Assessment Committee, Central Valley Bird Club, Central Valley Joint Venture, Cosumnes Research Group, County of Marin Wind Energy Advisory Group, Environmental Education Council of Marin, Information Center for the Environment (U.C. Davis), Intermountain West Joint Venture-California Steering Committee, Laguna de Santa Rosa Biodiversity Advisory Committee, Landbird Monitoring Network of the Americas, Mono Basin Science Council, Mono Lake Outdoor Education Center Advisory Board, North American

Banding Council, North American Bird Conservation Initiative—U.S. Committee, Oiled Wildlife Care Network, Pacific Coast Ocean Observing System (NOAA), Pacific Coast Joint Venture, Partners in Flight Research and Implementation committees, Petaluma Wetlands Alliance, Riparian Habitat Joint Venture, Sacramento River Riparian Sanctuary Technical Advisory Committee, San Francisco Bay Bird Observatory—Science Advisory Committee, San Francisco Bay Joint Venture, San Francisco Bay Upland Habitat Goals Steering Committee, San Francisco Bay Wetlands Regional Monitoring Program, San Francisco Science Collaborative, Shorebird Research Group of the Americas, Sierra Nevada Willow Flycatcher Working Group, Sonoran Joint Venture, Swainson's Hawk Technical Advisory Committee, Thank You Ocean, Tomales Bay Watershed Council, Tricolored Blackbird Working Group, USFWS Birder's Team, U.S. Shorebird Conservation Council, Waterbirds of the Americas, Western Bird Banding Association, Western Snowy Plover Working Groups—Regions 4 and 5.

A Snowy Plover incubates downy chicks. Color bands enable PRBO to closely monitor this vulnerable population.

Jenny Erbes / PRBO



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Burrowing Owl is one of the California Species of Special Concern that PRBO has found breeding in our Avian Monitoring on Private Lands program. Tom Grey

2007 Selected Publications

Peer-reviewed scientific papers. Books.

Ackerman, J.T., C.A. Eagles-Smith, J.Y. Takekawa, S.A. Demers, T.L. Adelsbach, J.D. Bluso, A.K. Miles, N. Warnock, and T.H. Suchanek. Mercury concentrations and space use of pre-breeding American Avocets and Black-necked Stilts in San Francisco Bay. *Science of the Total Environment* 384:452–466.

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PRBO authors of species accounts:

W. David Shuford—American White Pelican, Black Tern

W. David Shuford, Sue Abbott, and Tamiko D. Ruhlen—Snowy Plover

Diana Humple—Loggerhead Shrike (mainland populations)

Sacha K. Heath—Yellow Warbler, Sonora Yellow Warbler

Thomas Gardali and Jules Evens—San Francisco Common Yellowthroat

Thomas Gardali—Song Sparrow (“Modesto” population)

Hildie Spautz and Nadav Nur—Suisun Song Sparrow, Samuels Song Sparrow
Yvonne Chan and Hildie Spautz—Alameda Song Sparrow

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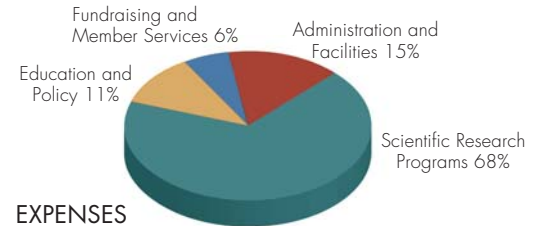
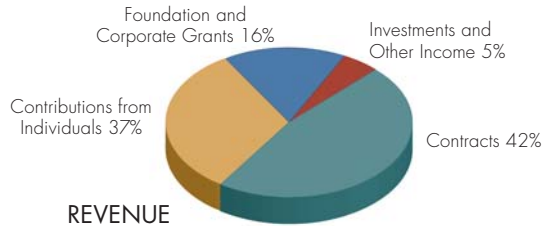
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2007 Financials

Statement of Financial Position as of March 31, 2008

Assets	
Current assets:	
Cash and cash equivalents	\$1,795,517
Accounts receivable	1,258,398
Current unconditional promises to give	152,000
Prepaid expenses and other current assets	23,759
Total current assets	<u>3,229,674</u>
Non-current assets:	
Endowment fund securities	120,414
Property, net of accumulated depreciation	6,078,282
Total non-current assets	<u>6,198,696</u>
Total assets	<u>\$9,428,370</u>
Liabilities and Net Assets	
Current liabilities:	
Accounts payable	\$302,751
Accrued vacation	186,164
Deferred revenue	311,937
Total current liabilities	<u>800,852</u>
Note payable:	<u>1,342,542</u>
Total liabilities	<u>2,143,394</u>
Net assets:	
Unrestricted	4,873,643
Temporarily restricted	2,294,096
Permanently restricted	117,237
Total net assets	<u>7,284,976</u>
Total liabilities and net assets	<u>\$9,428,370</u>

Statement of Activities for the Year Ended March 31, 2008

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Revenues and Support:				
Contracts	\$ 3,393,026	\$ 6,941	–	\$ 3,399,967
Contributions from individuals	539,481	2,445,912	–	2,985,393
Foundation and corporate grants	124,651	1,157,151	–	1,281,802
Investment income	49,813	–	(565)	49,248
Other income	298,856	39,872	–	338,728
Net assets released from restrictions	2,994,900	(2,994,900)	–	–
Total support and revenues	<u>7,400,727</u>	<u>654,976</u>	<u>(565)</u>	<u>8,055,138</u>
Expenses:				
Program services:				
Wetlands research	1,525,763	–	–	1,525,763
Terrestrial research	1,374,021	–	–	1,374,021
Marine research	1,201,858	–	–	1,201,858
Informatics	548,113	–	–	548,113
Science policy	436,142	–	–	436,142
Education and outreach	331,976	–	–	331,976
Total program services	<u>5,417,873</u>	<u>–</u>	<u>–</u>	<u>5,417,873</u>
Supporting services:				
Management and general	1,030,113	–	–	1,030,113
Development	434,591	–	–	434,591
Total supporting services	<u>1,464,704</u>	<u>–</u>	<u>–</u>	<u>1,464,704</u>
Total expenses	<u>6,882,577</u>	<u>–</u>	<u>–</u>	<u>6,882,577</u>
Change in net assets	518,150	654,976	(565)	1,172,561
Net assets, beginning of period (as restated)*	4,355,493	1,639,120	117,802	6,112,415
Net assets, end of period	<u>\$ 4,873,643</u>	<u>\$ 2,294,096</u>	<u>\$ 117,237</u>	<u>\$ 7,284,976</u>

* Note: Materially significant restatements were made to the organization's beginning net assets resulting in a net reduction to temporarily restricted net assets of \$442,839 and a net increase to unrestricted net assets of \$316,606. For a complete explanation of these corrections please see the 2007–08 audit report at www.prbo.org/2007auditreport.

The condensed financial statements presented above reflect PRBO's complete set of financial statements for the year ended March 31, 2008 which have been audited

by Perotti & Carrade, Certified Public Accountants, and on which they have rendered an unqualified opinion dated July 3, 2008. The organization's audited financial

statements and the independent auditors report can be found at www.prbo.org/2007auditreport.

Laurie Talcott
Chief Financial Officer



PRBO Conservation Science



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Kriss Neuman

W. David Shuford

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Julian Wood

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Mark Herzog, PhD, *Co-Director*

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Dennis Jongsomjit

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Lishka Arata

Jennifer Martin

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Missy Whip

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Glena Records, *Membership & Events*

Eve Williams

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James Rotenberg, PhD

Chris Rimmer

Stacy Small, PhD

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John S. Warriner

Sophie Webb

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John Winter

Steve Zack, PhD

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Association of Bay Area

Association of Bay Area

Governments

American Bird Conservancy

Arizona Bird Conservation

Initiative

Audubon California

Audubon Canyon Ranch

AT&T Labs-Research

Avocet Research Associates

The Bay Institute of San

Francisco

Bird Studies Canada

Bodega Marine Laboratory

Bureau of Land Management

Bishop Field Office

California Bay-Delta Authority

California Coastal Conservancy

California Dept. of Fish & Game

California Dept. of Parks and

Recreation

California Dept. of Water

Resources

California Institute for Energy

and Environment

California Rice Commission

California State Lands

Commission

California State Universities

Canal Family Support Program

Central Valley Joint Venture

Central Valley private

landowners

Centro de Investigación

Científica y de Educación

Superior de Ensenada

CH2M Hill, Inc.

Cordell Bank National Marine

Sanctuary

Cornell Laboratory of

Ornithology

Cornell University

Ducks Unlimited

Duke University

East Bay Municipal Water

District

East Bay Regional Parks District

East Stanislaus Resource

Conservation District

Environmental Stewardship &

Planning

Friends of the Inyo

Friends of the Tuolumne, Inc.

Golden Gate National Parks

Conservancy

Golden Gate National

Recreation Area

Greenbridges and Adobe Valley,

LLC

Gulf of the Farallones National

Marine Sanctuary

H.T. Harvey & Associates

Humboldt State University

Island Conservation

Institute for Fisheries Resources

Keith Campbell Foundation

JMartin

Klamath Bird Observatory

Las Cruces Biological Station

Laguna de Santa Rosa

Foundation

Landcare Research – Manaaki

Whenua, New Zealand

Literacy for Environmental

Justice

Los Angeles Department of

Water and Power

Marin County Dept. of Parks &

Open Space

Marin Municipal Water District

Marine Fish Conservation

Network

Massey University

Monoy Lake Committee

Monterey Bay Aquarium

National Audubon Society &

local chapters

National Aviary in Pittsburgh

National Coalition for Marine

Conservation

National Fish & Wildlife

Foundation

National Park Service & various

National Parks

National Science Foundation

Natural Resources Defense

Council

The Nature Conservancy

New Zealand Ornithological

Society

NOAA Fisheries

NOAA National Marine

Sanctuaries & Marine

Sanctuaries

North Pacific Research Board

Oceana

Oikonos

Oiled Wildlife Care Network

Olofson Environmental, Inc.

Oregon Dept. of Fish & Wildlife

Oregon State University

Pacific States Marine Fisheries

Commission

Park Flight

Philip Williams and Associates

Point Reyes National Seashore

The Presidio Trust

Prince William Sound Science

Center

River Partners

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Refuge Complex

San Francisco Bay Bird

Observatory

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Simon Fraser University

Solano County Farmlands &

Open Space Foundation

Sonoma County Agriculture &

Open Space District

Sonoma Land Trust

Sonoran Joint Venture

Smithsonian Institution

Stanford University

Stillwater Sciences, Inc.

Terra Peninsular, A.C.

Thomas Reid Associates

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Tulare Basin Wildlife Partners

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California

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US Bureau of Land Management

US Bureau of Reclamation

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Conservation Service &

Resource Conservation

Districts

US Fish & Wildlife Service &

National Wildlife Refuges

US Geological Survey

USGS California Off-Highway

Motor Vehicle Recreation

Division

US Navy

University of California, various

campuses

University of New Orleans

University of San Francisco

University of Victoria, B.C.

Vandenberg Air Force Base

Vermont Institute of Natural

Science

Wak Ka Koneke Indigenous

Association

Washington Department of Fish

and Wildlife

Washington State University at

Vancouver

Western Shasta Resource

Conservation District

Wetlands & Water Resources

Zander Associates

Front cover photo: Releasing a Bart-tailed Godwit in Australia.

Jan van de Kam