

prbo

PRBO Conservation Science



2011-12 Annual Report



Catalyzing Conservation Through Science in a Changing World

The demand for PRBO's conservation science has never been greater! During fiscal year 2011–12, our programs grew significantly, and we added over a dozen new staff, working from the Sierras to the sea and as far away as Antarctica. We collaboratively advanced win-win approaches to accelerating habitat loss, climate change, and other challenges to nature's ability to sustain wildlife and our communities.

During this past year, we launched major new initiatives on agricultural lands. A new PRBO partnership with the Natural Resources Conservation Service (NRCS) and scores of ranchers aims to "re-water" California rangelands by expanding eco-friendly cattle grazing and other beneficial practices that recharge groundwater, sequester carbon, and increase bird habitat. This \$10 million, five-year program will ultimately enhance 1.1 million acres!

Partnering with NRCS and Audubon, PRBO also helped 135 rice farmers secure \$7 million in Farm Bill funds to provide habitat and food for shorebirds and other wildlife in California's Sacramento Valley.

We are thrilled that the STRAW Project—Students and Teachers Restoring a Watershed—joined PRBO this past year. Since 1992, STRAW has engaged 25,000 students to restore over 25 miles of creek and tidal marsh habitats, guided by PRBO's science for over a decade. We are also testing new climate-smart restoration practices.

Continuing our long-term partnership with the U.S. Fish and Wildlife Service, we expanded restoration of the Farallon Islands to protect native species. Working with NOAA National Marine Sanctuaries, we developed recommendations for responding to oil spills, addressing climate change impacts, and reducing whale mortality from ship strikes. PRBO also provided scientific guidance to international policy-makers for establishing a Marine Protected Area at the Ross Sea, Antarctica—the last near-pristine ocean.

We significantly expanded PRBO's online decision-support tools and engaged with habitat managers, land use planners, and policy makers to ensure that the best available science drives decision-making.

PRBO's Board of Directors continued to provide remarkable leadership and support. We offer our deep gratitude to retiring board members Drs. Terry Root and John Eadie for their outstanding and long-term service. We are also delighted to welcome our accomplished new board members Dr. David Ackerly, Megan Colwell, and Ana Galutera!

And thanks to *your* support, PRBO continues to catalyze conservation science solutions to protect nature and secure our future. We are deeply grateful for your continued generosity that makes our work possible.

Ellie M. Cohen
President and Chief Executive Officer

Ed Sarti
Chair, Board of Directors

2011–12 Accomplishments

Rangelands in California's foothills have the potential to store vast quantities of water and sequester carbon—goals of our Watershed Enhancement Initiative. Melany Aten/PRBO



Rewatering California's Rangelands.

PRBO's new Watershed Enhancement Initiative embraces the huge potential for conservation on food-producing lands in California. We hired our first three Partner Biologists, who are now working hand-in-hand with NRCS conservationists and with more than 40 ranchers to restore nature's benefits ecologically and economically. Over the next five years, we intend to hire a total of 21 Partner Biologists and enhance 1.1 million acres of California's grazing lands—increasing natural water storage equivalent to two Hetch Hetchy reservoirs and sequestering millions of tons of atmospheric carbon.



The Warbling Vireo is one of many migratory species likely to benefit from climate-smart restoration of riparian habitat. Tom Grey

Climate-Smart Restoration. PRBO is designing and testing habitat restoration to be more resilient to extremes—creating ecological insurance for a future with more drought, flooding, heat, and changes in migration timing. We are planting a wider variety of native trees and shrubs that tolerate more extreme conditions and produce food earlier and later in the year, helping to ensure that restorations can thrive over the long term. In 2011, we initiated two climate-smart restoration pilot projects in northern Marin County. Implemented by our STRAW project with students and teachers, we are proactively addressing climate change while also engaging the next generation in innovative conservation leadership.

Unlocking the Data. Powerful online tools created by PRBO help resource managers prioritize in the face of accelerating environmental change. In the past year we developed a new version of the San Francisco Bay Sea Level Rise restoration tool, assessing the viability of tidal marsh habitats and dependent birds; we ranked existing and planned restoration projects in the Bay to best preserve marshes now and

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We greatly appreciate PRBO's leadership in our efforts to establish the largest network of no-take marine reserves and marine protected areas in the world, in the waters around Antarctica.

Steve Campbell, Campaign Director, Antarctic Ocean Alliance



Adélie Penguins in the Ross Sea region. Viola Toniolo

into the future; we ranked conservation lands across California based on bird needs, vegetation, and future climate impacts; and we initiated new bird and climate-change models from the Pacific Northwest to the Mexican desert. One major next step, in partnership with USGS and NOAA marine sanctuaries, is to incorporate scenarios of increasing storm intensity into new tools for planning for climate-related impacts in the greater San Francisco Bay Area.



The Last Ocean. PRBO is a leader in international scientific efforts to secure protection for the Ross Sea in Antarctica, where we have worked since 1972 studying Adélie Penguins. Growing fisheries as well as climate change threaten the marine ecosystem. We help facilitate a collaboration by more than 50 researchers from six countries to establish the scientific basis for a Ross Sea marine protected area—one of the largest ever proposed. Over the past year, at workshops in the United States and South Korea, we helped deliver scientific findings to key stakeholders, including the U.S. State Department and delegates to the multinational organization that manages the Southern Ocean.

International Shorebirds. PRBO is leading a new international effort to document shorebird populations throughout the Pacific Flyway, from Alaska to South America, in order to improve the effectiveness of management actions in the face of habitat loss and climate extremes. In 2011, we conducted workshops in Canada, Mexico, and

Ross Sea, Antarctica: minke whales, the U.S. Coast Guard icebreaker *Polar Star*, and Ross Island in the distance. Viola Toniolo.

Panama, partnering with more than 20 organizations to implement wintering shorebird studies. The first coordinated surveys took place between December 2011 and February 2012 at 50 sites in seven countries. More than 350 partner biologists and volunteers counted over one million shorebirds of more than 30 species on their wintering grounds. This is one of the most extensive shorebird surveys ever along the Pacific Coast of the Americas, and it will continue annually, expanding coverage in 2012–13 to Oregon and Washington.

Habitat in Rice Landscapes. PRBO is a leader in the Waterbird Habitat Enhancement Program, a major new project launched by NRCS in 2011 to create wildlife habitat in rice-growing lands. Already 135 growers are implementing bird- and other wildlife-friendly practices on their land with \$7 million in federal Farm Bill support. Key partners include Audubon California and the California Rice Commission. Providing wetland habitat, urgently needed for survival of wildlife populations, is especially valuable in an area where 95% of wetlands have been lost.

PRBO has been an extremely valuable partner in the protection of seabirds along the Central Coast of California.

Eric Morgan, Area Coordinator, BLM Seabird Protection Network



Common Murre colony. Mojosc coast

Southern California Marine Protection.

PRBO's coastal program, now in its 13th year, is expanding the use of seabird studies to assess the effectiveness of new marine protected areas (MPAs) throughout California. We are evaluating the ability of MPAs to enhance seabird foraging habitat and the utility of seabirds to aid in monitoring nearshore fish populations. In 2011, we established new monitoring sites at Santa Cruz Island and the southern California mainland to contribute to a multidisciplinary baseline assessment of initial MPA conditions.

Core partners include California's Monitoring Enterprise, The Nature Conservancy, and National Park Service.

Sierran Ecosystems.

High-elevation meadows are critical for storing water, especially as the mountains' permanent snowpack is lost. PRBO works in the northern Sierra Nevada region to ensure the long-term viability of meadow habitat. In the past year, we helped guide restoration and management of over

3,000 acres of Sierran meadows managed by diverse public and private entities.

At one working ranch, volunteers helped plant more than 2,000 willows. In a long-term partnership with the U.S. Forest Service, PRBO evaluates aspen, meadow, and burned habitats, using birds as indicators of ecological restoration. We also completed the 16th year of monitoring by over 20 PRBO biologists in national forests throughout the Sierra Nevada to help assess management actions and improve outcomes.

Find more information on all of PRBO's work at www.prbo.org.



Vital Rivers. PRBO ecologists are guiding conservation planning, and are monitoring restorations, in the critical floodplains of California's Central Valley. This past year we initiated a major monitoring project along the full length of the Sacramento and San Joaquin rivers to document regional bird population sizes for the first time. We also worked to ensure that California's new Central Valley flood protection plan includes restoration as a key strategy and expands river ecosystems in the decades ahead.

Indicators of Ocean Change. Long-term monitoring of Farallon Island seabirds reveals increasing unpredictability in the marine ecosystem. For more than three decades, PRBO documented a strong link between Common Murres' and Brandt's Cormorants' yearly breeding success, but this has begun to unravel. In 2011, Common Murres on the Farallones had favorable foraging and above-average breeding success, as did Cassin's Auklets. However, Brandt's Cormorants

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Montane meadow habitat, here in the Lassen region of Northern California, is vital to wildlife and for water storage. Ryan Burnett/PRBO

We are proud to collaborate with STRAW and PRBO in projects that nurture people's appreciation for natural ecosystems and our working lands.

Nancy Scolari, Executive Director, Marin Resource Conservation District, California

experienced nearly complete failure, and even Western Gulls had low productivity. These findings may reflect long-term changes in the ocean.

Protecting Whales. The rich ocean environment off the San Francisco Bay region supplies abundant food for whales, porpoises, and other wildlife that migrate here from across the Pacific. These same waters are the site of major shipping lanes, with increasing traffic over recent years resulting in multiple whale strikes. Our collaborative at-sea studies with NOAA marine sanctuaries are contributing to recommendations for modifying shipping traffic near the Golden Gate to better protect whales.



Children in a STRAW project plant native shrubs to restore streamside habitat. PRBO photo

Community-based Student Restoration.

The award-winning Students and Teachers Restoring A Watershed (STRAW) Project became part of PRBO in 2011! In our first year together, STRAW conducted over 40 restorations across the North Bay—the most ever in a single year—with more than 3,500 students. STRAW works at the forefront of conservation informed by science to restore creeks and tidal habitats, engaging students and community members.

Humpback whales and storm-petrels are among the species feasting on krill in coastal waters not far from the Golden Gate. Sophie Webb

Restoring the Farallon Islands.

“California’s Galapagos,” the Farallon National Wildlife Refuge, has experienced remarkable recovery from centuries of hunting, egg harvest, and human habitation, but many challenges remain. Dramatic success stories include northern fur seals, hunted out of the region in the 1800s: they began returning to the Farallones in the late 1990s and by 2011 numbered almost 500. Now, planning and research are under way to protect half the world’s population of Ashy Storm-Petrels from the effects of non-native rodents on the Farallones.

Mapping Migration for Conservation.

PRBO tracked Golden-crowned Sparrows for the first time from wintering grounds in California to breeding sites in coastal Alaska. The birds carried tiny data-collecting tags that biologists at our Palomarin Field Station recovered from returning sparrows! We also examined the Long-billed Curlew’s migration, using satellite tags, and found distinct timing, routes, and stopover strategies for three populations of this species of conservation concern. Pinpointing important breeding and stopover sites for migratory birds is critical to prioritizing conservation investments.



It's difficult to express just how important field *training* positions like those offered here at Palomarin are to post-fledged biologists like me.

Kim Kayano, PRBO intern at the Palomarin Field Station

Palomarin intern Xeronimo Castañeda holds a White-crowned Sparrow nestling. Kim Kayano

TomKat Ranch. This 2,000-acre habitat mosaic in the coastal hills south of San Francisco is a grass-fed beef ranch and the site of PRBO's newest field station. We collaborate with ranch managers to conduct ecological monitoring and guide sustainable and wildlife-friendly agriculture. In 2011, we began using birds as indicators to assess the impact of management decisions and support the TomKat goal of creating sustainably produced beef, promoting land stewardship, and enhancing biodiversity and wildlife protection.

State of the Birds. PRBO produced the first-ever "State of the Birds Report for San Francisco Bay," coauthored with the San Francisco Bay Joint Venture. It shows most species doing well after decades of conservation investment around the Bay. The report also highlights threats such as rising sea levels and increased storm activity. Resource managers welcomed this landmark summary of current trends and actions recommended for sustaining bird populations.

Invaluable Long-Term Data Sets.

PRBO's ongoing data collection encompasses uncommon time spans and provides the foundation for our innovative conservation efforts. We are grateful to our partners who make this possible (see page 13). Some 2011–12 landmarks:

- Palomarin Field Station – 46 years
- Farallon Islands – 42 years
- Bolinas Lagoon – 41 years
- Coastal Snowy Plovers – 36 years
- Mono Lake Gulls – 30 years
- Ross Island, Antarctica – 29 years
- STRAW – 20 years
- Central Valley riparian – 19 years
- Sierra Nevada meadows – 16 years

- San Francisco Bay tidal marsh – 16 years
- Northern Spotted Owls – 14 years
- Vandenberg A.F.B. – 13 years
- Alameda Least Terns – 12 years
- California/Arizona deserts – 10 years
- Sierra Nevada aspen restoration – 9 years
- Gulf of the Farallones (ACCESS) – 8 years

Palomarin at 45. The year 2011 marked the 45th anniversary of PRBO's Palomarin Field Station, site of one of North America's longest continuous bird ecology monitoring programs. In an anniversary reunion, more than 100

PRBO friends and former interns, some dating back to PRBO's founding, joined to celebrate Palomarin. Over the years, some 1,400 student scientists have trained as PRBO interns, with many going on to influential positions in conservation and academia, including leadership roles at PRBO!

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The Palomarin Field Station is open to visitors. Diana Humple/PRBO

Curlew and yellowlegs in agricultural landscape. Rick Lewis



Bilingual students led by PRBO educators teach their community about birds and habitats of San Francisco Bay. Annie Schmidt/PRBO

Bilingual Conservation Outreach. PRBO and our partners are actively increasing bilingual Spanish/English programming for elementary students. One 2011 highlight: In the largely Latino Canal Community, just north of San Francisco, students in PRBO's after-school science enrichment program created outreach videos to raise conservation awareness of local birds and habitats. PRBO also co-leads a bilingual Christmas Bird Count on San Francisco Bay and International Migratory Bird Day event.

Media Spotlight. PRBO is making headlines across the country and beyond! Highlights in 2011: songbirds

are increasing in size with a warming climate; habitat restoration can help marshes survive sea level rise; and ocean surveys identify food-web “hot spots” for protection. Learn more at www.prbo.org.

Staff Recognition. Catherine Hickey and Geoffrey Geupel received “Outstanding Partnership” awards from NRCS for their roles in securing over 100,000 acres of easements in the Wetlands Reserve Program. PRBO staff and colleagues in the Migratory Bird Conservation Partnership also received NRCS recognition as the new Waterbird Habitat Enhancement Program began. Jaime Jahnce, PhD, was recognized as “Outstanding Volunteer” for contributions to the National Marine Sanctuaries. Geoffrey Geupel represented U.S. Partners In Flight at the international Hula Valley Bird festival in Israel. Grant Ballard, PhD, was invited to speak on the Ross Sea at the Korean Polar Research Institute's 18th International Symposium. Bay Nature Magazine recognized Ellie Cohen as an “Environmental Hero” for leadership addressing climate change.

Find more information on all of PRBO's work at www.prbo.org.

Publications Peer-reviewed papers and

Climate Change

A climate change vulnerability assessment of California's at-risk birds. T. Gardali, N.E. Seavy, R.T. DiGaudio and L.A. Comrack. *PLoS ONE* 7: [e29507](https://doi.org/10.1371/journal.pone.029507).

Avian body size changes and climate change: Warming or increasing variability? R.E. Goodman, G.Lebuhn, N.E. Seavy, T. Gardali and J.D. Bluso-Demers. *Global Change Biology* 18:63–73.

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Identifying climatic analogs for Wisconsin under 21st-century climate-change scenarios. S. Veloz et al. *Climatic Change* 112:1037–1058.

No-analogue climates and shifting realized niches during the late Quaternary: Implications for species distribution models. S.D. Veloz et al. *Global Change Biology*, 18: 1698–1713.

Protected areas in climate space: What will the future bring? J.A. Wiens, N.E. Seavy and D. Jongsomjit. *Biological Conservation* 144:2119–2125.

Marine Protection

Where the wild things are: Predicting hotspots of seabird aggregations in the California Current system. N. Nur, J. Jahnce, M.P. Herzog, J. Howar, D. Hyrenbach, J. Zamon, D.G. Ainley, J.A. Wiens, K. Morgan, L.T. Balance and D. Stralberg. *Ecological Applications* 21:2241–2257.

Antarctica

Coexistence of mesopredators in an intact polar ocean ecosystem: The basis for defining a Ross Sea marine protected area. G. Ballard, D. Jongsomjit, S. D. Veloz and D. G. Ainley. *Biological Conservation* (online): www.sciencedirect.com/science/article/pii/S0006320711004356

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PRBO brings biology to the table in our unique partnership with the NRCS! The expertise of PRBO staff is highly regarded by our local farmers, ranchers, and community members.

Kandi Manhart, Executive Officer, Glenn County Resource Conservation District, California

selected reports and online tools, April 2011 through March 2012

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San Francisco Bay

Evaluating tidal marsh sustainability in the face of sea-level rise: A hybrid modeling approach applied to San Francisco Bay. D. Stralberg, M. Brennan, J.C. Callaway, J.K. Wood, L.M. Schile, D. Jongsomjit, M. Kelly, V. Thomas Parker and S. Crooks. *PLoS ONE* 6:e27388.

State of the birds San Francisco Bay. M. Pitkin and J. Wood (ed.). PRBO and the San Francisco Bay Joint Venture.

Tidal marsh bird population and habitat assessment for the San Francisco Estuary under future climate change conditions: Version 1.0. S. Veloz, N. Nur, L. Salas, D. Stralberg, D. Jongsomjit, J. Wood, L. Liu and G. Ballard. Report to the California Landscape Conservation Cooperative.

Working Lands

The value of pollinators and pollinator habitat to rangelands: Connections among pollinators, insects, plant communities, fish, and wildlife. W. Gilgert and M. Vaughan. *Rangelands* 33:14–19.

Ecological Restoration and Forest Management

Interactive effects of vegetation structure and composition describe bird habitat associations in mixed broadleaf-conifer forest. N.E. Seavy and J.D. Alexander. *Journal of Wildlife Management* 75:344–352.

Maximizing benefits from riparian revegetation efforts: Local- and landscape-level determinants of avian response. T. Gardali and A.L. Holmes. *Environmental Management* 48:28–37.

Migratory Connectivity

Contrasting extreme long-distance migration patterns in Bar-tailed Godwits *Limosa lapponica*. P.F. Battley, N. Warnock, T.L. Tibbitts, R.E. Gill, Jr, et al. *Journal of Avian Biology* 43:21–32.

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Demographics of Aechmophorus grebes killed in three mortality events in California. D.L. Humple, H.M. Nevins, E.M. Phillips, C. Gible, L.A. Henkel, K. Boylan and D.J. Girman. *Marine Ornithology* 39: 235–242.

Forty-five years and counting: Reflections from the Palomarin Field Station on the contribution of long-term monitoring and recommendations for the future. E.L. Porzig, K.E. Dybala, T. Gardali, G. Ballard, G. Geupel and J.A. Wiens. *Condor* 113: 713–723.

Growth, age at maturity, and age-specific survival of the arboreal salamander (*Aneides lugubris*) on Southeast Farallon Island, California. D.E. Lee, J. Bettaso, M.L. Bond, R.W. Bradley, J. Tietz and P.M. Warzybok. *Journal of Herpetology* 46:64–71.

How safe is mist netting? Evaluating the risk of injury and mortality to birds. E.N. Spotswood, K.R. Goodman, J. Carlisle, R.L. Cormier, D.L. Humple, J. Rousseau, S.L. Guers and G.G. Barton. *Methods in Ecology and Evolution* 3:29–38.

Quantitative assessment of current risks to Harlequin Ducks in Prince William Sound, Alaska, from the Exxon Valdez oil spill. M.A. Harwell, J.A. Wiens et al. *Human and Ecological Risk Assessment* 18: 261–328.

Conservation Education

Developing a conservation message. K. Ehrenberger, A. Dayer, J. Duberstein and M. Pitkin. *Legacy: Journal of the National Association for Interpretation* 23: 27–29.

Bird Ecology and Conservation

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Arctic foxes, lemmings, and Canada Goose nest survival at Cape Churchill, Manitoba. M.E. Reiter and D.E. Andersen. *Wilson Journal of Ornithology* 123:266–276.

How avian nest site selection responds to predation risk: Testing an 'adaptive peak hypothesis'. Q.S. Latif, S.K. Heath and J.T. Rotenberry. *Journal of Animal Ecology* 81:127–138.

Incidence of eccentric molt in first-year Wrentits increases with fledge date. M.L. Elrod, N.E. Seavy, R.L. Cormier and T. Gardali. *Journal of Field Ornithology* 82:325–332.

Male-skewed adult sex ratio, survival, mating opportunity and annual productivity in the Snowy Plover *Charadrius alexandrinus*. L.E. Stenzel, G.W. Page, J.C. Warriner, J.S. Warriner, K. Neuman, D.E. George, C.R. Eyster and F.C. Bidstrup. *Ibis* 153: 312–322.

Patterns in movement, captures, and phenology of Sharp-shinned Hawks in central coastal California. S. Culliney and T. Gardali. *Journal of Raptor Research* 45:160–167.

Recruitment of Cassin's Auklet (*Ptychoramphus aleuticus*): Individual age and parental age effects. D.E. Lee, R.W. Bradley and P.M. Warzybok. *Auk* 129:1–9.

Status and distribution of the Barred Owl in Marin County. S. Jennings, R.L. Cormier, T. Gardali, D. Press and W.W. Merkle. *Western Birds* 42: 103–110.

Online Tools

Applied California Current Ecosystem Studies (ACCESS) mapping tool. J. Jahneke, D. Moody and T. Fonseca. data.prbo.org/cadc/tools/multimap/aoccean.php

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Environmental change network. S. Veloz, T. Gardali, T. Fonseca and G. Ballard. data.prbo.org/apps/ecn/

San Francisco Bay sea level rise: Climate change scenarios for tidal marsh habitats. S. Veloz, M. Fitzgibbon, D. Stralberg, S. Michale, D. Jongsomjit, D. Moody, N. Nur, L. Salas, J. Wood and G. Ballard. www.prbo.org/sfbayslr

The climate conservation commons: Making climate change and related environmental data more accessible and useable for conservation practice. D. DiPietro, Z. Stewart, A. Hollander, T. Fonseca, D. Moody, J. Quinn, M. Fitzgibbon and G. Ballard. climate.calcommons.org

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Mary Farr
Ellen and Jim Strauss
George and Helene Strauss
Dr. and Mrs. Bill Talmage
Joanna Thayer
Alan A. and Ruth Tobey
Peter J. Watkins
Craig and Connie Weatherup
Janet Wessel
Rev. Jan Hickmann West
Rachel Woodard
Robert and Lynne Zolli



The Rufous Hummingbird depends upon high montane meadows as it migrates in fall to Mexico. Tom Grey

Tern Society

Anonymous (3)
Janet W. and Bruce Allen
Robert E. and Gertrude
Allen
Gail Anderson and King
McPherson
Gayle A. Anderson
Estate of Richard
Bachenheimer
Len and Patti Blumin
Avis Boutell and Alice Miller
Dix and Didi Boring
Dr. Richard Bradus
Mrs. John Carson
Barbara Champion
Valerie Chenoweth Brown
Estate of Julia E. Chitwood
Judith Ciani Smith
Rick and Jillian Clark
Estate of Dr. Howard
Cogswell
Ellie M. Cohen and Miki
Goralsky
Rigdon Currie and Trish
Johnson
John Dakin
Martha Day
John and Sara Donnelly
Ted and Pat Eliot
Linda Fisher
Geoff Geupel and Janet
Kjelmyr
Doris Grau

Dean and Nancy Hanson
Jack and Deyea Harper
Estate of Dorothy A. Harvey
Totton and Joanne
Heffelfinger
Estate of Shirley Hicklin
Aaron Holmes
Estate of William S. and
Vivienne Howe
Dorothy Bell Hunt Trust
Robert E. and Ann Hunter
Diane Ichiyasu
Estate of Alexander Imlay
Emily Hanna Johnson and
Dick Bricker
Carolyn Johnson and Richard
Theis
Don C. and Louise Johnston
Joy Kennedy-Maxion
Harvey and Mary King
Nancy Kling
Mark Leggett
Estate of Doris F. Leonard
Robin L. C. Leong
Ewan Macdonald and
Kirsten Walker Macdonald
Estate of Roderick
Macpherson
Sara Mathews
Mary V. Mayer
Estate of Margaret
McDowell

Leah Norwood
Estate of Judith B. Nadai
Linda O'Neill
Doris Panzer
Carolyn Pendery
Estate of Wilson Pendery
Regina Phelps
Willis J. and Gloria R. Price
John and Cynthia Rathkey
Glena and John Records
Donald A. Reinberg
Mark Reynolds, PhD and
Gretchen Le Buhn
Estate of Margina Rhyne
Jacqueline Robertson
Marie W. Ross
Victoria Rupp
Steve Rutledge and Julie
Beer
Estate of Mel Stamm
Peggy Sloan
Ann Stone
Matthew and Polly Stone
Estate of Carter and Mary
Thacher
Stephen and Britt Thal
David Thomas
Linda Vetter and Terry
Blanchard
Estate of Mary Ellen Wartens
Nadine Weil
Estate of Ruth V. Wilson

Tern Society members are individuals who have notified us that PRBO is included in their estates.



The Golden-crowned Sparrow is a PRBO study species at the Palomarin Field Station, where we are mapping migration for conservation. Tom Grey

Affiliations

Organizations in which PRBO is an invited or elected member include:

Almanor Basin Watershed Advisory Committee, American Bird Conservancy, Avian Knowledge Alliance, Avian Knowledge Network, Bank Swallow Technical Advisory Committee, Bay Area Ecosystems Climate Change Consortium, Bay Area Watershed Network, Bay Delta Conservation Plan Science Advisory Panel, Bay-Delta Science Consortium, Bird Conservation Alliance, Bird Conservation Funding Coalition, Bird Education Alliance for Conservation, Bolinas Lagoon Technical Advisory Committee, California Association of Winegrape Growers, California Landscape Conservation Cooperative, 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 Flood Management Program, Central Valley Joint Venture, Cordell Bank Sanctuary Advisory Council, 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, Migratory Bird Conservation Partnership, 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, San Joaquin River Partnership, Shorebird Research Group of the Americas, Sierra Nevada Willow Flycatcher Working Group, Society for Northwest Vertebrate Biology, 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 Hemisphere Shorebird Group, Western Snowy Plover Working Groups—Regions 4 and 5, Yellow-billed Cuckoo Working Group.

Farallon Patrol

The volunteer skippers of the Farallon Patrol provide year-round boat transportation for PRBO and U.S. Fish and Wildlife Service to our field station on Southeast Farallon Island. We thank all Patrol members, including the following skippers who served actively this past year.

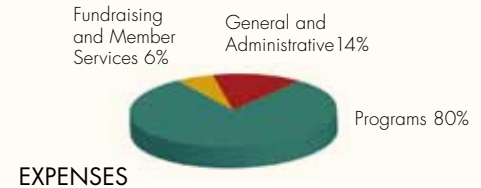
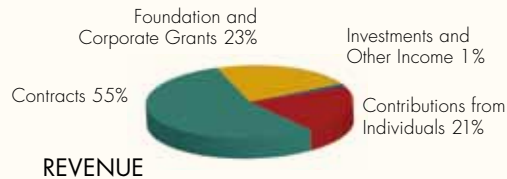
Keith Sedwick,
Commodore
Harry Andrews
Don Bauer
Jim Bewley
Laurie Chaikin
Tom Charron
Henry Corning
Paul Dines
Al diVittorio

Jim Ellis
Jody Harris
Sam Lavanaway
Rob MacFarlane
Warren Sankey
Clifford Shaw
Harmon Shragge
John Wade
Alan Weaver



Approaching Southeast Farallon Island, where PRBO works year-round in cooperation with U.S. Fish and Wildlife Service.

Isabel Luevano



2011-12 Financials

Statement of Financial Position as of March 31, 2012 and 2011

	2012	2011
Assets		
Current assets:		
Cash and cash equivalents	\$ 2,146,961	\$ 1,383,735
Certificates of deposit	627,002	862,818
Contracts receivable	1,158,226	1,847,928
Contributions, grants and bequest receivable	101,500	361,500
Prepaid expenses and other current assets	75,718	86,506
Total current assets	<u>4,109,407</u>	<u>4,542,487</u>
Non-current assets:		
Endowment fund	138,655	134,609
Property, net of accumulated depreciation	<u>5,502,696</u>	<u>5,606,006</u>
Total non-current assets	5,641,351	5,740,615
Total Assets	<u><u>9,750,758</u></u>	<u><u>10,283,102</u></u>
Liabilities and Net Assets		
Current liabilities:		
Accounts payable	217,956	360,346
Accrued vacation	263,319	219,474
Deferred revenue	<u>348,728</u>	<u>358,953</u>
Total current liabilities	830,003	938,773
Net assets:		
Unrestricted		
Board-designated funds	1,857,822	2,066,276
Building and other	<u>5,742,407</u>	<u>5,787,133</u>
Total unrestricted	7,600,229	7,853,409
Temporarily restricted	1,320,526	1,490,920
Total Net Assets	<u>8,920,755</u>	<u>9,344,329</u>
Total Liabilities and Net Assets	<u><u>\$9,750,758</u></u>	<u><u>\$10,283,102</u></u>

Statement of Activities for the Years Ended March 31, 2012 and 2011

	2012	2011
Changes in unrestricted net assets:		
Revenue and Support:		
Government and other contracts	\$ 4,398,666	\$ 3,671,753
Contributions from individuals	521,311	468,039
Foundation and corporate grants	14,704	27,235
Investment and other income	88,010	133,962
Net assets released from restrictions:		
Contributions from individuals	1,164,162	1,952,665
Foundation and corporate grants	<u>1,848,132</u>	<u>1,662,614</u>
Total revenue and support	8,034,985	7,916,268
Expenses:		
Program services	6,665,969	5,676,029
General and administrative	1,138,259	1,037,146
Fundraising and member services	<u>483,937</u>	<u>450,177</u>
Total expenses	<u>8,288,165</u>	<u>7,163,352</u>
Change in unrestricted net assets*	(253,180)	752,916
Changes in net assets restricted for a future period:		
Contracts and other income	148	2,775
Contributions from individuals	1,154,866	1,810,723
Foundation and corporate grants	1,686,886	1,502,777
Net assets released from restrictions	<u>(3,012,294)</u>	<u>(3,615,279)</u>
Decrease in temporarily restricted net assets	(170,394)	(299,004)
Change in net assets	(423,574)	453,912
Net assets at beginning of year	<u>9,344,329</u>	<u>8,890,417</u>
Net assets at end of year	<u><u>\$ 8,920,755</u></u>	<u><u>\$ 9,344,329</u></u>

*NOTE: The 2012 change in unrestricted net assets is due to a planned allocation of net asset reserve funds to high-priority programs and depreciation..

The condensed financial statements presented above reflect PRBO's complete set of financial statements for 2011 and 2012 which have been audited by Perotti &

Carrade, Certified Public Accountants, and on which they have rendered an unqualified opinion dated July 9, 2012. The organization's complete audited financial statements

and the independent auditor's report can be found at www.prbo.org/2011auditreport.

Laurie Talcott
Chief Financial Officer

We are becoming better stewards because of PRBO's involvement. I see the benefits of our collaboration every day—more birds in my fields.

Don Bransford, rice farmer, Colusa County



American Bittern in a rice field. Dan Skalos/PRBO

PRBO Partners

AECOM

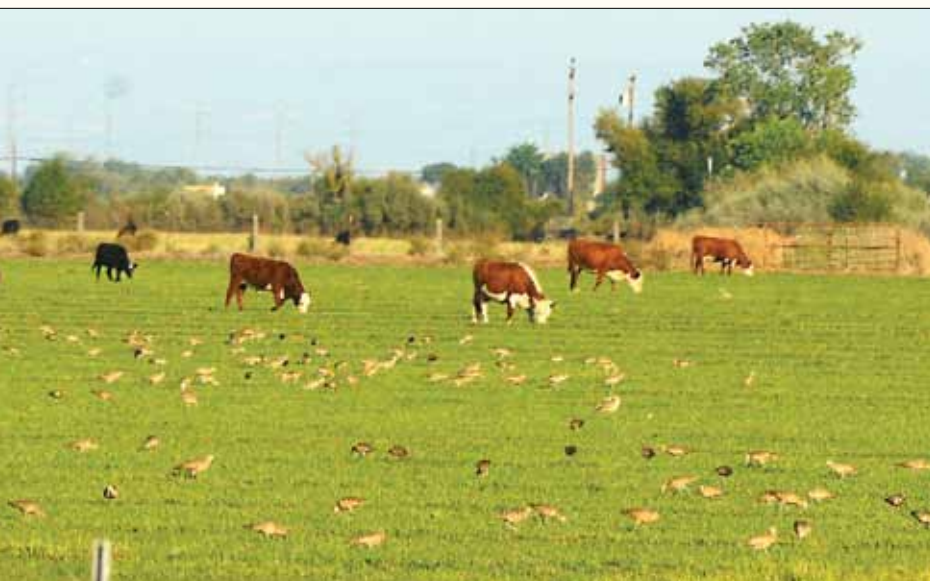
The Amargosa Conservancy
 American Bird Conservancy
 American Rivers
 Army Corps of Engineers
 Asociación Calidris
 Association of Bay Area Governments
 AT&T Labs—Research
 Audubon California
 Audubon Canyon Ranch
 Aves y Conservacion, Birdlife in Ecuador
 Avocet Research Associates
 Ayuda Management Corporation
 The Bay Institute
 Big Sur Land Trust
 BirdLife International

Bird Studies Canada
 Bodega Marine Laboratory
 Cache Creek Conservancy
 California Academy of Sciences
 California Bay-Delta Authority
 California Coastal Conservancy
 California Dept. of Fish and Game
 California Dept. of Parks and Recreation
 California Dept. of Water Resources
 California Landscape Conservation Cooperative
 California Rangeland Conservation Coalition

California Resource Conservation Districts
 California Rice Commission
 California State Parks Off-Highway Motor Vehicle Recreation Division
 California State Universities
 Canal Family Support Program
 Center for Ecosystem Management and Restoration
 Central Valley Joint Venture
 Centro de Investigacion Cientifica y de Educacion Superior de Ensenada
 CH2M Hill, Inc.
 City of American Canyon
 City of Petaluma
 City of Santa Rosa

Cordell Bank National Marine Sanctuary
 Cordell Marine Sanctuary Foundation
 Cornell Laboratory of Ornithology
 Cornell University
 Council on Ocean Affairs, Science and Technology
 County of Napa
 Defenders of Wildlife
 Ducks Unlimited
 Environmental Defense Fund
 ERT, Inc.
 Farallones Marine Sanctuary Association
 Filmmakers Collaborative
 Friends of the Tuolumne, Inc.
 Golden Gate National Parks Conservancy
 Golden Gate National Recreation Area
 Great Basin Bird Observatory
 Grupo de Aves del Noroeste de México
 Gulf of the Farallones National Marine Sanctuary
 Hagar Environmental Science
 Hawaii Pacific University
 H.T. Harvey & Associates
 Imperial Irrigation District
 Intermountain West Joint Venture
 Institute for Fisheries Resources
 Institute for Bird Populations
 Island Conservation
 Klamath Bird Observatory

Laguna de Santa Rosa Foundation
 Landcare Research—Manaaki Whenua, New Zealand
 Literacy for Environmental Justice
 ManTech SRS Technologies, Inc.
 Marin County Dept. of Parks & Open Space
 Marin Dept of Public Works
 Marin Municipal Water District
 Marine & Coastal Conservation Spatial Planning Center.
 Marine Fish Conservation Network
 Massey University
 McEvoy Ranch
 Mono Lake Committee
 Monterey Bay Aquarium
 MWH Americas, Inc.
 National Audubon Society & local chapters
 National Coalition for Marine Conservation
 National Fish & Wildlife Foundation
 National Park Service & national parks
 National Science Foundation
 Natural Resources Defense Council
 The Nature Conservancy
 New Zealand Ornithological Society
 NOAA National Marine Fisheries Service



Long-billed Curlews and other shorebird species feed in a field in California's Central Valley, during their migration.

Cory Gregory/PRBO

Snowy Plover nestlings. PRBO and partners are working toward this threatened species recovery. PRBO photo



NOAA National Marine Sanctuaries
 North American Bird Conservation Initiative
 Oceana
 Oiled Wildlife Care Network
 Olofson Environmental, Inc.
 Oregon State University
 Panamá Audubon
 Parques Nacionales de Peru
 Partners in Flight
 Pepperwood Preserve
 Pomona College
 Philip Williams and Associates⁴
 Point Reyes National Seashore
 Pomona College
 The Presidio Trust
 Prince William Sound Science Center
 Private Landowners
 Prunuske Chatham Inc.
 Resources Legacy Fund
 Riparian Habitat Joint Venture
 River Partners
 Romberg Tiburon Center for Environmental Studies
 San Francisco Bay Bird Observatory
 San Francisco Bay Joint Venture
 San Francisco Bay National Wildlife Refuge Complex
 San Francisco Estuary Institute
 San Francisco Estuary Project
 Santa Lucia Conservancy
 San Luis National Wildlife Refuge Complex
 Science Applications International Corporation

Scripps Institution of Oceanography
 Sequoia Riverlands Trust
 Simon Fraser University
 Solano County Farmlands & Open Space Foundation
 Sonoma County Agriculture & Open Space District
 Sonoma County Regional Parks
 Sonoma County Water Agency
 Sonoma Ecology Center
 Sonoma Land Trust
 Sonoran Joint Venture
 Smithsonian Institution
 Stanford University
 Stillwater Science 5
 Sustainable Conservation
 Tejon Ranch
 Tetra Tech, Inc.
 Thomas Reid Associates
 TomKat Ranch
 Tulare Basin Wildlife Partners
 United Anglers of Southern California
 U.S. Army
 U.S. Bureau of Land Management
 U.S. Bureau of Reclamation
 U.S. Environmental Protection Agency
 USDA Forest Service
 USDA Forest Service International
 USDA Forest Service Pacific Southwest Research Station
 USDA Natural Resource Conservation Service
 U.S. Fish & Wildlife Service & National Wildlife Refuges
 U.S. Geological Survey

University of California, various campuses
 UC Agricultural Extension
 University of Illinois
 University of New Hampshire
 University of New Orleans
 University of San Francisco
 University of Victoria, B.C.
 University of Washington, Seattle
 Vandenberg Air Force Base
 Wak Ka Koneke Indigenous Association
 Washington State University at Vancouver
 Western Bird Banding Association
 Western Shasta Resource Conservation District
 Wetlands & Water Resources
 World Wildlife Fund



Conservation Partnerships. PRBO works effectively with many valued partners to create win-win solutions for protecting natural systems into the future. We play a lead role in the California Landscape Conservation Cooperative (LCC), recently formed by U.S. Fish and Wildlife Service to bring together scientists and managers for effective conservation in the face of rapid environmental change. We helped draft this LCC's charter and now serve on both the steering committee and the science subcommittee. In regional Joint Ventures established to protect wetland and adjacent habitat for birds, Ellie M. Cohen chairs the Central Valley Joint Venture, Geoffrey Geupel chairs the Sonoran Joint Venture, and Ellie Cohen and Melissa Pitkin are executive committee members of the San Francisco Bay Joint Venture. We also are active in the Intermountain West and Riparian Habitat Joint Ventures. PRBO's collaborative at-sea monitoring is now part of the West Coast Ecosystem-Based Management Network extending from Washington to Southern California.

At work in our at-sea monitoring partnership, Jaime Jahncke shows a krill sample—shrimplike plankton that are food for creatures as large as blue whales in the Gulf of the Farallones.

Sophie Webb



PRBO Conservation Science



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Front cover photo: Black-necked Stilt in a California rice field. Agricultural lands, including the rice landscape in the Central Valley, are providing habitat for birds and other wildlife through innovative programs in which PRBO is a key partner. Photo by Stuart Mackay