



**Point Blue**

Conservation science  
for a healthy planet.

# Annual Impact Report

## 2018-19



# Cycles

The natural world moves in cycles. In just one example, our biologists observe these cycles every day on the amazing ecosystems of the Farallon Islands. While fall brings the end of the breeding season and the departure of seabirds like Common Murres and Tufted Puffins, it also brings the arrival of migrant songbirds and the return of the white sharks. As the days get shorter and winter sets in, the songbirds move on to their winter homes and elephant seals take over the islands to mate and raise their pups. And in the spring, the last of the recently independent seal pups head out on their own for the first time, making way for the seabirds to return and begin the cycle anew.

Organizations also move in cycles. This past year, Point Blue has seen one phase of a cycle end and another begin, as it bid a fond farewell to one CEO and welcomed another. Through these changes, we've been grateful that your support has stayed constant. From the heartfelt sendoff event in Bolinas for Ellie Cohen, to the warm welcome you've given incoming CEO Manuel Oliva, we're honored to have you as part of the Point Blue community.

We also know that cycles can be disrupted. We are seeing this play out with increasing disturbances to natural cycles as climate change, habitat loss, and other environmental stressors threaten both wildlife and human communities.

In response, and through your support, we are doubling down on our commitment to address the global climate, water,

and biodiversity crises. From creating and sharing tools that prepare our coasts for rising seas and severe storms to testing and sharing restoration techniques that make habitats more resilient to climate change, we're creating breakthroughs to safeguard our planet's health for wildlife and people. We're increasing the pace, scale, and impact of our climate-smart conservation as we continue to innovate to help nature and our communities prepare, adapt, and thrive in a changing future.

In this annual impact report, we offer a handful of examples of our many accomplishments from the past year. Of course the cycle continues, and our eyes are on the future and all that we'll accomplish in the years ahead with your support.

Sincerely,



Manuel J. Oliva  
CEO



Geoffrey Gordon-Creed  
Chair, Board of Directors



## OUR MISSION

We conserve birds, other wildlife, and ecosystems through science, partnerships, and outreach.

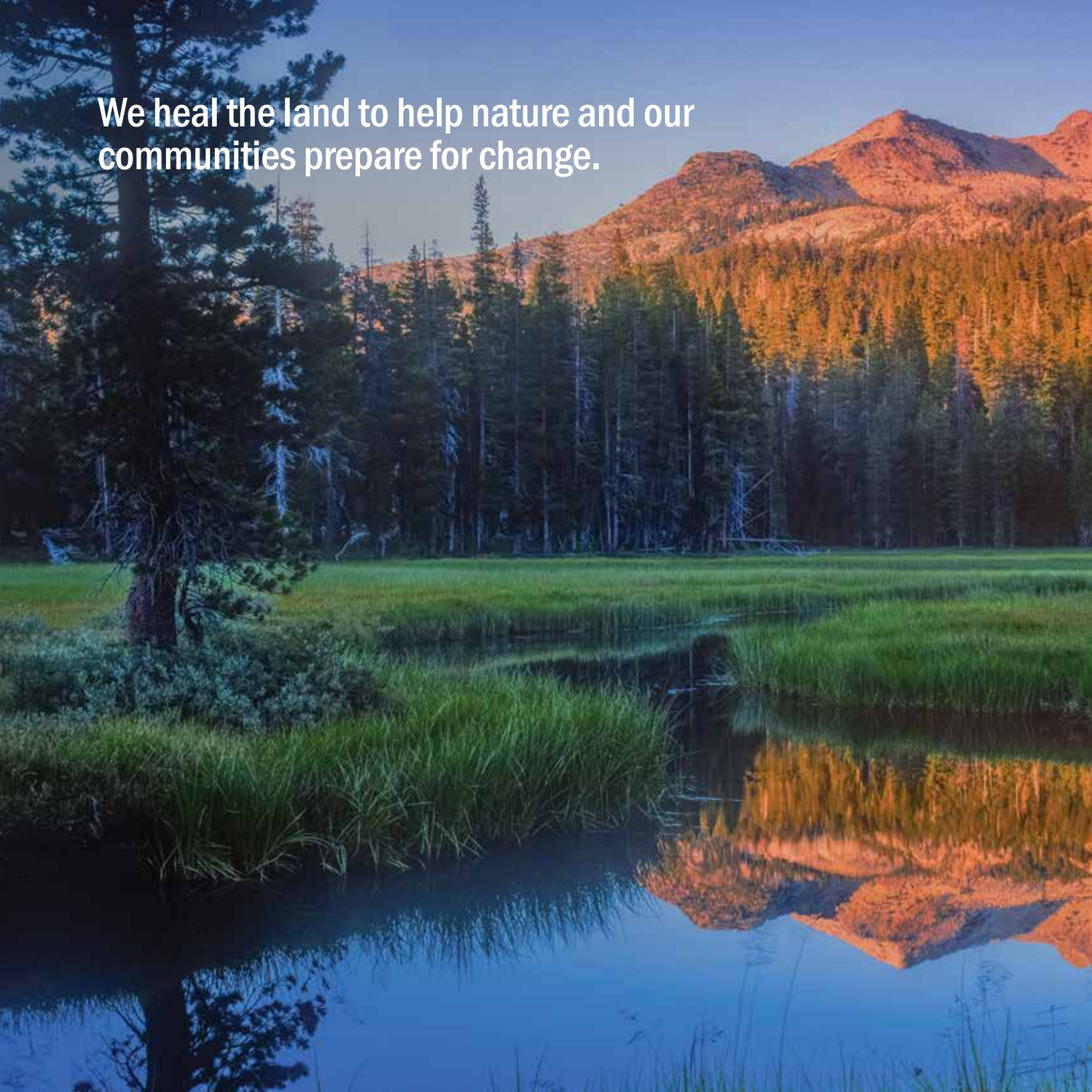
## OUR VISION

Because of our collaborative climate-smart conservation actions today, healthy ecosystems will sustain thriving wildlife and human communities, well into the future.





We heal the land to help nature and our communities prepare for change.







Sunset over a Sierra Nevada meadow.  
Photo: Ron and Patty Thomas.

### Leading the Way in Meadow Restoration

Sierra Nevada Group Director Ryan Burnett became chair of the Sierra Meadows Partnership, a passionate group of 30+ organizations and 100+ individuals dedicated to meadow restoration, protection, and conservation. Working together, partners are increasing the pace and scale of Sierra meadow restoration efforts for the benefit of people and ecosystems. With Ryan's leadership and the hard work of all our colleagues, the partnership aims to restore and protect 30,000 acres of meadows by 2030. Point Blue's innovative tools, including climate-smart meadow restoration guides, are available to all partners to help them consider climate change in restoration planning and implementation.

### Riparian Restoration a Win-Win for Birds and Climate

Studies by Point Blue scientists and colleagues revealed that riparian forest restoration is not only a valuable strategy for creating bird habitat, it can help fight climate change. We found that riparian forests store as much carbon as any other forest type, and actively planting trees jump-starts their growth and more than doubles the rate of carbon storage over the first 10 years. Additionally, our observations at sites in California's Central Valley showed that it's possible to optimize the design and management of restorations to maximize the bird and carbon benefits.

### Spreading the Word on Climate-Smart Restoration

Sharing our pioneering climate-smart restoration science helps amplify and accelerate our conservation impact. This year, we conducted 7 intensive workshops and gave 11 presentations, reaching almost 1,000 restoration practitioners, funders, and influencers. Participants brought real projects and collaborated with our scientists to develop creative restoration plans that restore biodiversity, enhance carbon storage, and improve water quality on degraded or destroyed lands, all while addressing climate vulnerabilities and maintaining ecosystem resilience. And from Santa Barbara to Alaska and as far away as France, we took our climate-smart restoration expertise on the road, sharing our science with stakeholders around the world to increase our impact.

### Safeguarding Little Fish with Big Impact

Little ocean dwellers like krill, anchovy, and other “forage fish” are big players in healthy ocean food webs. Their absence or decline can cause devastating collapses in predators such as salmon, seabirds, and whales. To get a more accurate estimate of forage fish abundance, our Farallon Islands biologists monitored nesting Common Murres, identifying and counting each fish brought back to the chicks. At sea, Point Blue scientists aboard research vessels used sound signals to reveal swarms of forage fish in the water. The combined data helps agencies like NOAA Fisheries make better decisions about the quantities of forage fish that can be sustainably harvested—leaving enough to ensure a resilient population and also support other wildlife.

### Our Science Protects Whales

Point Blue has taken a leadership role in addressing the growing problem of whale death by ship strike, leveraging our long-term research and monitoring data to help secure the health and vitality of vulnerable whale populations. Using innovative research methods and collaborating with wildlife managers, our scientists designed effective and comprehensive new plans that will keep ships from killing whales in deadly collisions. NOAA is now using our estimates of whale deaths to assess the strike risk to west coast whales, and together we’re collaborating with the shipping industry—discussing technical, logistical, and economic factors—to implement our management recommendations in key risk areas.

### Connecting Communities to Coastal Ecosystems

As the human population has rapidly increased in coastal areas, so has the pressure on local ecosystems. This can lead to disturbances to wildlife, habitat destruction, and increased competition for resources. Point Blue is responding by building an active network of volunteer, community-based science groups to reduce human impacts on birds and other marine wildlife along the coast of California. Partners like California State Parks and the California Coastal National Monument use our seabird science to inform ocean tour groups and specific ocean user groups, helping them decrease disturbances while continuing to provide engaging ocean experiences.



Humpback whale breaching in the Pacific Ocean.  
Photo: Izanbar.



**We help reduce threats to wildlife and ensure  
sustainable human uses of our oceans.**



We safeguard our diverse and vibrant shorelines  
for future generations.





### Empowering Communities to Take Action

The Our Coast Our Future (OCOF) team is providing coastal communities the tools and information they need today to plan for higher seas in the future. In a study with the US Geological Survey and other partners, our scientists applied a new modeling approach to understand coastal California's vulnerabilities in our changing world. The results revealed that, when combined with a severe storm, sea-level rise could flood more than \$150 billion in property and place half a million residents at risk—three times more people than previous models that considered only sea-level rise. Planners in over 70 city, county, regional, and state agencies—covering 95% of the urbanized California coast!—are already using OCOF to make their communities more resilient.

### Nature-Based Solutions = More Resilient Coasts

In partnership with The Nature Conservancy and Environmental Science Associates, we released guidance for using natural infrastructure to make California's coasts more resilient to increasing flood hazards. Our report, included as a chapter in California's Fourth Climate Change Assessment, provides the first ever technical guidance for nature-based approaches to sea-level rise adaptation on California's Coast. We demonstrated how nature-based solutions like living shorelines—built up of vegetated dunes, marshes, and native oyster reefs, for example—can be more cost-effective and more resilient than man-made levees. The technical section of our report received the 2019 'Outstanding Environmental Resource Document' award from the Association of Environmental Professionals.

### Strengthening Pacific Flyway Partnerships

Along with Migratory Shorebird Project partners, our scientists traveled to Ecuador, Peru, and Mexico for coastal wetland conservation meetings with NGOs and local, regional, and national governments (including the US State Department). Discussions focused on linking wetland habitat, current and future threats, and the use of biodiversity data in conservation strategies. Meetings also covered actions on both wild and working lands, and ideas to promote designation of protected areas. Point Blue is now collating, analyzing, and sharing data on coastal wetland biodiversity and conditions across all 13 countries on the Pacific Coast of the Americas.

Sanderlings on a California beach.  
Photo: Keith B. Winn.

### Improving Soil Health on Working Lands

Point Blue is partnering with the California Department of Food and Agriculture to make the soil on working lands healthier—able to store more carbon, perform natural water and nutrient cycling, and support productive plant growth. Their Healthy Soils Program helps landowners explore sustainable farming methods such as applying compost, tilling less, or planting native vegetation. We assist landowners in meeting the program's funding requirements, including technical planning and, in some cases, rigorous monitoring and data tracking. We're also exposing a wider audience to sustainable farming techniques. We led four rangeland soil health demonstration projects, which involve field-scale presentations of climate-smart practices, data collection on soil carbon sequestration and biodiversity impacts, and community engagement.

### Keeping Rice Fields Flooded Helps Waterbirds

A study by Point Blue scientists and colleagues found that staggered water removal from flooded rice fields successfully extends the duration of habitat availability for a diversity of waterbirds. This practice creates a mosaic of water depths, appealing to a range of birds from dabbling ducks to long-legged waders. This alternative water drawdown method has been part of Natural Resources Conservation Service (NRCS) incentive programs since 2011 and has been implemented on over 100,000 acres since that time. By “ground-truthing” the practice, we found that delaying the drawdown of rice fields by three weeks from the traditional timing supported the highest response by waterbirds. We hope the new evidence will lead to more landowners implementing this and other practices that benefit waterbirds.

### Working Lands Reap Conservation Rewards

Over the past year, Point Blue-NRCS Partner Biologists have engaged with more than 119 farmers and ranchers, supported planning and implementation of conservation practices on 43,465 acres, and helped leverage \$4.94 million in Farm Bill funds. Generally these resources invested are matched 1:1 by producer investment, for a total of ~\$10 million in working lands conservation investments through EQIP and other Farm Bill conservation programs this year.



Partner Biologists Kelly Weintraub (r) and Corey Shake sample rangeland soil.  
Photo: Ryan DiGaudio/Point Blue.



**We use science and partnerships to maximize the benefits farms and ranches provide to people and wildlife.**





We empower people of all ages to tackle the greatest environmental challenges of our time.





## Scaling STRAW


Growing beyond its North Bay roots, STRAW (Students and Teachers Restoring A Watershed) has expanded to Plumas County as well as four South Bay counties. Being in new geographies not only results in adding new partnerships, schools, and community members to the program, but new habitat types, too. Mountain meadows and agricultural hedgerows were two new restoration types that STRAW incorporated into our community-based, climate-smart approach in the last year, and with great success. In these new regions, we engaged with 13 community partners and 300 students and teachers, building connections that bring people and nature together.

## Nurturing Plants and Students

A new partnership has been formed with the city of Petaluma and Casa Grande High School to utilize an existing empty plant nursery facility to grow many of the 4,500 oaks, buckeyes, and other native trees and plants needed for STRAW's habitat restorations—all with the help of students! This partnership is enabling STRAW to further engage and empower students by providing hands-on science education and career training in ecological restoration. The nursery will collect and propagate native plants to the highest climate-smart standards, while taking great care to prevent the spread of *Phytophthora*, a highly destructive water mold. This last year, the team focused on cleaning, weeding, and repairing and purchasing equipment to get the facility running for the school year beginning in fall 2019.

## New Intern Training Center Opens

Point Blue's new Rich Stallcup Intern Training Center—named in memory of one of our greatest teachers—provides an immersive space where budding conservationists can exchange bold new ideas with peers and learn from experienced leaders every day. Located in Petaluma's historic Martin Farmhouse, the new Center houses 10 future conservation leaders, enabling interns from different programs to connect as one cohort, share experiences, and learn from each other.



Students participate in a STRAW restoration  
along the Pajaro River.  
Photo: Ethan Inlander /The Nature Conservancy.



### Tracking Water from Space

Extreme drought is forecast to become more of the norm for California, making it harder to meet the state's many demands for water. In response, Point Blue and partners launched Water Tracker, an online tool that analyzes satellite imagery to provide near real-time data on the availability of open surface water and wetlands in California's Central Valley. Resource managers and planners are now using Water Tracker to decide how best to allocate limited freshwater resources to meet the needs of wildlife and people. Within months of launching the tool, we heard from partners at the US Fish and Wildlife Service, other federal and state agencies, and conservation NGOs that the system is already guiding when and where water should be allocated for habitat in order to maximize biodiversity benefits.

### Avian Knowledge Network 2.0

In 2003, Point Blue and partners launched The Avian Knowledge Network (AKN), an online platform for bird scientists that centralizes data and makes it available for scientific analysis. This year, we released AKN 2.0. With a more user-friendly website, the AKN presents a toolkit for scientists to enter and manage their own data and also discover and download data from other scientists. The AKN contains data going back 50 years and spanning the Americas, from Alaska to Chile, making it an invaluable tool for researchers across the country. With over 9,000 active, registered researchers using the platform, the AKN is just one example of how Point Blue's leadership in data management and storage helps partners achieve their conservation goals.

### Securing Valuable Data

Point Blue currently manages over 1.5 billion scientific observations, collected by our own scientists as well as by scientists from around the country. With our longstanding partnerships with federal and state agencies, NGOs, universities, and others, we need to be leaders in data security. Over the past year, we've launched a project to make all of our data storage and management practices meet national and international standards for data security. Once complete, we'll be one of the few NGOs that has the necessary certification to be a qualified partner with federal agencies.



Aerial view of the Sacramento River and surrounding agriculture.  
Photo: E. Pantha.



An aerial photograph showing a wide, winding river flowing through a landscape of agricultural fields. The fields are divided into various shapes and sizes, with colors ranging from light tan to deep green, indicating different crops or stages of growth. The river is a dark, winding line that meanders through the landscape, creating a complex pattern of bends and loops. The overall scene is a high-angle view of a rural, agricultural area.

We turn data and knowledge into game-changing conservation actions.



# 2018-19 Publications

## Peer-Reviewed Publications

*Post-fledging Survival of Adélie Penguins at Multiple Colonies: Chicks Raised on Fish Do Well.* By Ainley, D.G., K.M. Dugger, M. La Mesa, G. Ballard, K. Barton, S. Jennings, B. Karl, A. Lescroël, P. O'B. Lyver, A. Schmidt, P. Wilson. In *Marine Ecology Progress Series*.

*Rapidly Diverging Population Trends of Adélie Penguins Reveal Limits to a Flexible Species' Adaptability to Anthropogenic Climate Change.* By Ballard, G., D.G. Ainley. In *Biodiversity and Climate Change: Transforming the Biosphere* by Lovejoy, T. and L. Hannah [Eds.].

*Fine-Scale Oceanographic Features Characterizing Successful Adélie Penguin Foraging in The SW Ross Sea.* By Ballard, G., A. Schmidt, V. Toniolo, S. Veloz, D. Jongsomjit, K.R. Arrigo, D.G. Ainley. In *Marine Ecology Progress Series*.

*Dynamic Flood Modeling Essential to Assess the Coastal Impacts of Climate Change.* By Barnard, P.L., L.H. Erikson, A.C. Foxgrover, J. Finzi Hart, P. Limber, A.C. O'Neill, M. van Ormondt, S. Vitousek, N. Wood, M. Hayden, and J.M. Jones. In *Scientific Reports*.

*Microbial Ecology of the Western Gull.* By Cockerham, S., B. Lee, R.A. Orben, R.M. Suryan, L.G. Torres, L. G., P. Warzybok, R. Bradley, J. Jahncke, H.S. Young, C. Ouverney, and S. Shaffer. In *Microbial Ecology*.

*Carbon Sequestration in Riparian Forests: A Global Synthesis And Metaanalysis.* By Dybala K.E., V. Matzek, T. Gardali T, N.E. Seavy. In *Global Change Biology*.

*Optimizing Carbon Storage and Biodiversity Co-Benefits In Reforested Riparian Zones.* By Dybala K.E., K. Steger, R.G. Walsh, D.R. Smart, T. Gardali, N.E. Seavy. In *Journal of Applied Ecology*.

*Projected 21st Century Coastal Flooding in the Southern California Bight, Part 2: Tools for Assessing Climate Change-Driven Coastal Hazards and Socio-Economic Impacts.* By Erikson, L.; P. Barnard.; A. O'Neill.; N. Wood; J. Jones; H. Finzi ; S. Vitousek; P. Limber; M. Hayden; M. Fitzgibbon; J. Lovering; A. Foxgrover. In *Journal of Marine Science and Engineering*.

*Classic Pattern of Leap-Frog Migration in Sooty Fox Sparrow (*Passerella iliaca Unalaschcensis*) is Not Supported by Direct Migration Tracking of Individual Birds.* By Fraser, K.C.; A. Roberto-Charron; B. Cousins; M. Simmons; A. Nightingale; A. Shave; R.L. Cormier; D.L. Humple. In *The Auk*.

*Water and the Future of the San Joaquin Valley.* By Hanak, E., A. Escrive-Bou, B. Gray, S. Green, T. Harter, J. Jezdimirovic, J.R. Lund, J. Medellin-Azuara, P. Moyle, N. Seavy. In Public Policy Institute of California report.

*2018 Increased Reproductive Investment Associated with Greater Survival and Longevity in Cassin's Auklets.* By Johns M.E., Warzybok P., Bradley RW, J. Jahncke , M Lindberg, GA Breed. In *Proceedings of the Royal Society B*.

*Killer Whales Redistribute White Shark Foraging Pressure on Seals.* By Jorgensen, S.J., S. Anderson, F. Ferretti, J.R. Tietz, T. Chapple, P. Kanive, R.W. Bradley, J. Moxley, and B.A. Block. 2019. In *Scientific Reports*.

*Global Phenological Insensitivity to Shifting Ocean Temperatures Among Seabirds.* By Keogan, K., F. Daunt, D.G. Ainley, G. Ballard, J. Jahncke, A. Lescroël, p. Warzybok, A. Phillimore, S. Lewis, et al. 2018. In *Nature Climate Change*.

*A Possible Adélie Penguin Sub-Colony on Fast Ice By Cape Crozier, Antarctica.* By LaRue, M., D. Iles, S. Labrousse, L. Salas, G. Ballard, D. Ainley, B. Saenz. In *Antarctic Science*.

*Physical and Ecological Factors Explain the Distribution of Ross Sea Weddell Seals During the Breeding Season.* By

La Rue, M., L. Salas, D. Ainley, N. Nur, S. Stammerjohn, L. Barrington, Luke, K. Stamatiou, J. Pennycook, M. Dozier, Melissa, J. Saints, and H. Nakamura. In *Marine Ecology Progress Series*.

*Initial Growth of Northern Fur Seal (*Callorhinus Ursinus*) Colonies at the South Farallon, San Miguel, And Bogoslof Islands.* By Lee D.E, R.W. Berger, J.R. Tietz, P. Warzybok, R. W. Bradley, A. J. Orr, R. G. Towell, and J. Jahncke. In *Journal of Mammology*.

*Evidence of Age Related Improvement in the Foraging Efficiency of Adélie Penguins.* By Lescroël, A., G. Ballard, M. Massaro, K. Dugger, S. Jennings, A. Pollard, E.L. Porzig, A. Schmidt, A. Varsani, D. Grémillet, D.G. Ainley. In *Scientific Reports*.

*Light-Level Geolocator Analyses: A User's Guide.* By Lisovski, S., S. Bauer, M. Briedis, S. C. Davidson, K. L. Dhanjal-Adams, M. T. Hallworth, J. Karagicheva, C. M. Meier, B. Merkel., J. Ouwehand, L. Pedersen, E. Rakhimberdiev, A. Roberto-Charron, N.E. Seavy, M. D. Sumner, C. M. Taylor, S. J. Wotherspoon, E. S. Bridge. In *Journal of Animal Ecology*.

*Migration Pattern of Gambel's White-crowned Sparrow Along the Pacific Flyway.* By Lisovski, S., Z. Németh, J. C.





Wingfield, J. S. Krause, K. A. Hobson, N.E. Seavy, J. Gee, M. Ramenofsky. In *Journal of Ornithology*.

*Prevalence of Three-Chick Nests in Adelle Penguins (Pygoscelis adeliae) at Cape Crozier, Ross Island.* By Morandini, V., A. Lescroël, D. Jongsomjit, S. Winquist, A. Schmidt, G. Ballard, Kappes, P. & Dugger, K.M. In *Marine Ornithology*.

*Changes In Abundance and Distribution of Nesting Double-Crested Cormorants Phalacrocorax auritus in the San Francisco Bay Area, 1975-2017.* By Rauzon, M.J., M.L. Elliott, P.J. Capitolo, L.M. Tarjan, G.J. McChesney, J.P. Kelly, and H. Carter. In *Marine Ornithology*.

*Impact of Extreme Drought and Incentive Programs on Flooded Agriculture and Wetlands in California's Central Valley.* By Reiter, M.E., N. Elliott, D. Jongsomjit, G. Golet, M.D. Reynolds. In *PeerJ*.

*Recent Drought and Tree Mortality Effects on the Avian Community in Southern Sierra Nevada: A Glimpse of the Future?* By Roberts, L.J., R. Burnett, J. Tietz, and S. Veloz. In *Ecological Applications*.

*Waterbird Response to Variable-Timing of Drawdown in Rice Fields After Winter-Flooding.* By Sesser, K.A., M. Iglecia, M.E. Reiter, K.M. Strum, C.M. Hickey, R. Kelsey, D.A. Skalos. In *PLoS ONE*.

*The Relative Importance of Agricultural and Wetland Habitats to Waterbirds in the Sacramento-San Joaquin River Delta of California.* By Shuford W.D., M.E. Reiter, K.A. Sesser, C.M. Hickey, G.H. Golet. In *San Francisco Estuary Watershed Science*.

*Breeding Biology of Charadrius Plovers.* By Stenzel, L. E., and G. W. Page. In *Studies in Avian Biology: The Population Ecology and Conservation of Charadrius Plovers* by M. A. Colwell and S. M. Haig (Editors).

*A Comparative Analysis of Common Methods to Identify Waterbird Hotspots.* By Sussman, A. L., B. Beth Gardner, E. M. Adams, L. Salas, K. P. Kenow, D. R. Luukkonen, M. J. Monfils, W. P. Mueller, K. A. Williams, M. Leduc-Lapierre, and E. F. Zipkin. In *Methods In Ecology and Evolution*.

*Interacting and Non-Linear Avian Responses to Mixed Severity Wildfire and Time Since Fire.* By Taillie, P.J., R.D. Burnett, L.J. Roberts, B.R. Campos, M.N. Peterson, C.E. Moorman. In *Ecosphere*.

*Combining Seabird Diets, Acoustics and Ecosystem Surveys to Assess Temporal Variability and Occurrence of Forage Fish.* By Thayne, M.W., J.A. Santora, B. Saenz, P. Warzybok, J. Jahncke. In *Journal of Marine Systems*.

*Seasonal Abundance and Distribution of the Farallon Camel Cricket, Farallonophilus cavernicolus Rentz, 1972 (Orthoptera: Rhaphidophoridae), and Other Arthropods on Southeast Farallon Island.* By Valianis, M., B. Robinson, S. Anand, R. Bradley, J. Jahncke, J. Honda. In *The Pan-Pacific Entomologist*.

*Weak Effects of Geolocators on Small Birds: A Meta-Analysis Controlled for Phylogeny and Publication Bias.* By

Brlík, Vojtěch, J., M. Burgess, S. Hahn, D. Humple, et al. In *Journal of Animal Ecology*.

*Genome Sequence of a Gyrovirus Associated with Ashy Storm-Petrel.* By Waits, K., R.W. Bradley, P. Warzybok, S. Kraberger, R.S. Fontenele, and A. Varsani. In *Microbiology Resource Announcements*.

*Prey Switching and Consumption by Seabirds in the Central California Current Upwelling Ecosystem: Implications for Forage Fish Management.* By Warzybok, P., J.A. Santora, D.G. Ainley, R.W. Bradley, J.C. Field, P.J. Capitolo, R.D. Carle, M. Elliott, J.N. Beck, G.J. McChesney, M.M. Hester, J. Jahncke. In *Journal of Marine Systems*.

*Fluorescent Ornamentation in the Rhinoceros Auklet (Cerorhinca monocerata).* By Wilkinson, B., M. Johns, P. Warzybok. In *Ibis*.

*Global Synthesis of Conservation Studies Reveals the Importance Of Small Habitat Patches for Biodiversity.* By Wintle, B. A., H. Kujala, A. Whitehead, A. Cameron, S. Veloz, A. Kukkala, and A. Moilanen. In *Proceedings of the National Academy of Sciences*.

### Select Reports and Other Publications

*Toward Natural Infrastructure to Manage Shoreline Change in California.* By Newkirk, S., S. Veloz, M. Hayden, W. Heady, K. Leo, J. Judge, R. Battalio, T. Cheng, T. Ursell, and M. Small (The Nature Conservancy and Point Blue Conservation Science). In *California's Fourth Climate Change Assessment*, California Natural Resources Agency: Sacramento, CA.

*Assessing and Communicating the Impacts of Climate Change on the Southern California Coast.* By Erikson, L.H., P.L. Barnard, A. O'Neill, P. Limber, P., S. Vitousek, J. Finzi Hart, M. Hayden, J. Jones, N. Wood, M. Fitzgibbon, A. Foxgrover, and J. Lovering. In *California's Fourth Climate Change Assessment*, California Natural Resources Agency: Sacramento, CA.

*Informing Sea Level Rise Adaptation Planning Through Quantitative Assessment of the Risks and Broader Consequences of Tidal Wetland Loss: A Case Study in San Mateo County.* By Hayden, M., S. Veloz, L. Salas, N. Elliott, D. Jongsomjit, N. Nur, J. Wood, H. Papendick, and K. Malinowski. Point Blue Conservation Science Technical Report.

*A Guide to Climate-Smart Meadow Restoration in the Sierra Nevada and Southern Cascades.* Vernon, M.E., B.R. Campos, R.D. Burnett. Point Blue Conservation Science Handbook.

*Ensuring a Resilient Tidal Marsh Ecosystem through Healthy Upland Transition Zones: Assessment and Recommendations.* By Wood, J.K., N. Nur, M.L. Elrod, A. Schmidt, D. Ball, D. Thomson. Point Blue Conservation Science Final Report to the National Fish and Wildlife Foundation.

*Methane Emissions from Livestock.* By Carey, C.J. Seavy, N.E. 2019. Point Blue Conservation Science Issue Brief.

## THE YEAR AT A GLANCE Our Impact

# 2,726

Number of students connected with nature through hands-on STRAW restoration projects

# 35

Number of peer-reviewed publications authored or co-authored by Point Blue scientists, helping fellow conservationists around the world put knowledge into action

# 43,465

Acres of working lands on which our Partner Biologists supported the planning and implementation of conservation practices that benefit soil, water, air, plants, and animals

# 56

Number of aspiring conservation leaders who participated in Point Blue's Intern Training Program

# 10,909

Linear feet of watershed restored, thanks to students in our STRAW program

## Friends of Point Blue

### Gifts of \$500 or Higher Received Between April 1, 2018 and March 31, 2019

Friends help Point Blue's scientists reduce the impacts of climate change, habitat loss, and other environmental threats while promoting nature-based, climate-smart solutions for wildlife and people. Thank you for your support!

#### \$100,000 +

Gayle A. Anderson Trust  
Anonymous (5)  
Martha Ehmann Conte  
The David and Lucile Packard Foundation  
Elinor Patterson Baker Trust  
The Elizabeth R. and William J. Patterson Foundation  
Richard Grand Foundation  
Hellman Foundation  
Sabrina and Mick Hellman  
Gordon and Betty Moore Foundation  
Regenerative Agriculture Foundation  
S. D. Bechtel, Jr. Foundation  
Sustainable Markets Foundation  
TomKat Ranch Educational Foundation

#### \$50,000 to \$99,999

Anonymous (4)  
Doris Duke Charitable Foundation  
The Kimball Foundation  
Makray Foundation  
March Conservation Fund  
Marin Community Foundation

Giles W. & Elise G. Mead Foundation  
Moore Family Foundation  
R. Thomas Goodrich and Rebecca Patton  
Resources Legacy Fund  
Ivan Samuels  
Ed and Michelle Sarti

#### \$25,000 to \$49,999

Paul M. Angell Family Foundation  
Anonymous (2)  
Arntz Family Foundation  
Bella Vista Foundation  
Bernice Barbour Foundation, Inc.  
Thelma Doelger Trust for Animals  
San Francisco Foundation  
Larry and Anki Gelb  
The Henry Mayo Newhall Foundation  
Rich and Nancy Tietz  
The Volgenau Foundation

#### \$10,000 to \$24,999

Anonymous (2)  
#NoRegrets Initiative  
Don R. Baldocchi

Bob Battagin and Deborah Fitzpatrick  
Blackie Foundation  
Steven Atnip and Kathleen Brown Atnip Trust  
Sallie Calhoun and Matt Christiano  
Frank A. Campini Foundation  
Anne Chadwick  
Julie Chase Baldocchi  
Megan Colwell and Bonnie Stewart  
Community Foundation for San Benito County  
Electra de Peyster  
Carole E. Deitrich  
Firedoll Foundation  
Gannett Foundation  
Geoffrey Gordon-Creed and Jean Fraser  
Susie Hagemeister and Mark Martin  
Heffelfinger Family Trust  
Carolyn Johnson and Rick Theis  
The Karen A. & Kevin W. Kennedy Foundation  
Maidenherren Fund  
Marisla Foundation  
Peter and Kristan Norvig

Quest Foundation  
Dorothy & Jonathan Rintels Charitable Foundation  
Susan Flagg and Carlo Rocco Fund  
The Rose Foundation for Communities and the Environment  
Robert Shwartz  
Tahoe Truckee Foundation

#### \$5,000 to \$9,999

Anonymous (3)  
Ian Altman & Laura Scher  
The Bear Gulch Foundation  
CrankStart Foundation  
Constance Crawford  
Teresita Haag  
Shirley Hicklin Fund  
J.W. & H.M. Goodman Family Foundation  
Teke and Elizabeth Kelley  
Lamar Leland  
Clinton Moloney and Henry Alvidres  
RHE Charitable Foundation  
Brett Robertson and Dave Schrader  
Leon and Peggy Sharyon

Alec Shuldiner and Talia Friedman  
Dr. Barbara Holzman and Dr. David B. Smith  
The Springcreek Foundation  
Mary Stroh-Twicheil and Chuck Twicheil  
White Family Trust

#### \$2,500 to \$4,999

Anonymous (8)  
Glenda and Henry Corning  
Margaret and Eric Davis  
Edith and Jeb Eddy  
Phyllis Faber  
Wendell Gilgert  
Donald and Louise Heyneman  
Diane Ichiyasu  
Johnson & Johnson Family of Companies  
Dwight L. Johnson  
Arthur Kern  
Jack and Adrienne Ladd  
Helene B. Marsh  
Bob and Joan McGrath  
Mennen Environmental Foundation  
John, Susan, and Eddie Monson





David Myles, Ph.D. and Carrie Horsey  
 Outrageous Foundation  
 Nadine Peterson and Michael Tuciarone  
 Point Blue Tomales Bay Ecosystem Endowment Fund  
 Nadine Peterson and Michael Tuciarone  
 Steve Vallarino and Raini Sugg  
 The Reverend Jan H. West

#### \$1,000 to \$2,499

Anonymous (5)  
 Cheryl Abel  
 Marilyn Bates  
 Alan and Janet Baumann  
 Margaret and Thomas Blankenship

L & L Borok Foundation  
 Jack C. Borok  
 Darrell and Lauren Boyle  
 Donald and Diane Bransford  
 Susanne E. Campbell  
 Rick and Jillian Clark  
 Carole and Peter Clum  
 Community Foundation Sonoma County  
 Sue Conley and Nan Haynes  
 Jean Conner  
 Janelle Cortese  
 Bruce De Benedictis and Caroline Kim  
 Linda De Lucchi and Laurence Malone  
 Daniel and Lee Drake  
 Ted Eliot\*

Fischer Family Fund  
 Robert and Michelle Friend  
 Dr. John Good and Dr. Janet Arnesty  
 Kim David Greenwood and Sean Fischer  
 Griffith Fund  
 Nan Haynes and Susan Conley  
 Helen and Thomas Merigan Charitable Trust  
 Barbara Holzman PhD  
 Erik Jansen  
 Andy Jones  
 Jack and Marilyn Jones  
 Patricia Kelso  
 Karen and Robert Kustel  
 Nancy and Peter Lang  
 Francine Lent

Laurence Malone and Linda De Lucchi  
 Helen McKenna Ridley and H. Allen Ridley  
 Miles and Mary Ellen McKey  
 Barbara J. Meislin  
 Helen & Thomas Merigan Charitable Trust  
 Clark and Carol Mitchel  
 Mark Mushkat  
 Susan and Franklin Orr  
 Carolyn H. Pendery  
 Petit Teton Foundation  
 Philanthropic Ventures Foundation  
 Patricia and Tim Preston  
 Marjorie Randolph  
 Gayle Rohrbasser

Lisa Rooney-Zarri and Philip Zarri  
 Arthur and Lois Roth  
 Joyce Schnobrich  
 Olivia and Craig Sears  
 Michael and Janet Shane  
 Shasta Wildlife Conservation Foundation  
 Sara and Bill Snyder  
 Ann Stone  
 Livia and Biz Stone  
 Matthew and Polly Stone  
 Marilyn M. Strand  
 Ellen and Jim Strauss  
 Laney and Pasha Thornton  
 Samuel Thoron  
 John F. Ungar  
 Nadine Weil

*continued on next page*



## Friends of Point Blue *continued*

Marshall and Jennifer White  
Alfred Wood and Florence  
Monnier

### \$500 to \$999

Alan Abel  
Jane A. Allen  
Anonymous (2)  
Carol Baird and Alan Harper  
Marian and Dick Baldy  
Carroll and Susanne  
Barrymore  
Lorraine Bazan and Chris  
Stover  
Judy and Jerome Blackman  
Yvonne M. Blaine  
Theresa and Dale Blue  
Avis Boutell and Alice Miller  
Barbra and Robert Brandriff  
Phyllis Browning  
Kayla Rose and Charles  
Chapin  
Theodore and Victory Chase  
Everett Clark  
Collin Cochrane  
Terry and Zeo Coddington  
Ellie M. Cohen and Miki  
Goralsky  
Robert and Carol Coon  
Hannah and Lawrence  
Crutcher  
Robert and Carol Dettling  
O'Neil Dillon

John and Sara Donnelly  
Kenneth Drexler and Sarah  
Leach  
Judith J. Dugan  
Charlotte and Roy Ekland  
Doug and Charlene Elliott  
Theodore and Peggy Elliott  
Michael Fitzgibbon and Wendy  
Eliot  
Mark H. Forney  
William and Karen Foss  
Linda Graziano  
Jean Greaves  
Dorothy D. Gregor  
Sherman Gromme  
Dolores M. Hansen  
Avery Hellman and Andy Allen-  
Fahlander  
John and Hermi Hiatt  
Brian Hicks  
Terry and Richard Horrigan,  
MD  
Donald K. Howard Jr.  
Elizabeth and Thomas Jones,  
III  
Jeffrey Kimball and Pamela  
Hogan  
Harvey and Mary King  
Paul C. Klahr  
Chris Knight and Sarah Powell  
Sarah Leach and Kenneth  
Drexler  
A. Lane Leckman M.D.

Jeff Loomans and Patricia  
Munter  
Sarah Loughran  
Ewan Macdonald\* and Kirsten  
Walker Macdonald  
Danelle and Thomas Mann  
Jennifer L. Matkin  
Dorothy Mayer  
Mike Mecham  
Sherie Michaile and Greg  
Yarwood  
Michael Nelligan  
George Nolte  
Linda O'Neill  
Nancy Painter  
Michael Perrone  
Sally Powell and Christopher  
Knight  
Micah Rimer  
John Rotenberry PhD  
Jim Salzman  
Lynda and Tim Schaefer  
Penny Schultz  
Jean Snuggs  
Lynne E. Stanley  
Langdon R. Stevenson  
Wayne and Jean Suzuki  
Kristen J. Tackmier  
Richard Taylor and Tracy  
Grubbs  
John and Carry Thacher  
Lou and Kathy Williams

Greg Yarwood and Sherie  
Michaile  
**In-Kind Gifts**  
Lawrence M. Crutcher  
Echoview Software Pty Ltd  
Ida Lou Glass  
Ingenuity Design

North Coast Fire and EMS  
Training  
Paella del Reyes  
Susie Tompkins Buell  
Charles H. Wray

\*deceased



## Farallon Patrol

We rely upon the skill and generosity of volunteer skippers in the Farallon Patrol for year-round transportation between the mainland and our research station at the Farallon Islands National Wildlife Refuge. We are grateful to our current Patrol skippers for helping to make our Farallon program possible.

Keith Sedwick,  
Commodore  
Don C. Bauer  
Tom L. Charron  
Paul N. Dines  
Andy C. Jones  
Jamis H. MacNiven

Thomas Marlow  
Kixon Meyer  
Jan Passion  
Harmon Shragge  
John Wade  
Richard J. Webber  
Alan Weaver

## Tern Society Members and Estate Gifts

The Tern Society honors individuals who are building an enduring legacy of conservation science through their planned gifts to Point Blue. We gratefully acknowledge our Tern Society members.

Anonymous (6)	Ted and Pat Eliot Trust	Helene B. Marsh	Marie W. Ross
Bunny and Chick Hoyez Charitable Fund	Nancy W. Gamble	Lorraine Masten	Victoria Rupp
Estate of Jacqueline Robertson	Geoffrey Geupel and Janet Kjelmry	Sara Mathews Trust	Ellen Sabine
Cheryl Abel	Doris W. Grau	Mary V. Mayer	Ed and Michelle Sarti
Robert and Gertrude Allen	Estate of Patricia D. Gunther	David McDonald	Keith Sedwick
Gayle A. Anderson Trust	Dean and Nancy Hanson	Miles and Mary Ellen McKey	Peggy Sloan
Sara and Andy Barnes	Jack and Deyea Harper	Mike Mecham	Ann Stone
Don and Barbara Bauer	Jim Havlena	John and Susan Monson	Matthew and Polly Stone
Dix and Didi Boring	Karen A. Havlena	Mark Mushkat	Steve and Britt Thal
Avis Boutell and Alice Miller	Heffelfinger Family Trust	Len and Charlotte Nelson	David J. Thomas
Richard Bradus, M.D.	Claudia and Scott Hein	Leah Norwood and Linda Fisher	John F. Ungar
Barbra and Robert Brandriff	Aaron Holmes	Linda O'Neill	Linda L. Vetter
Anne Chadwick	Diane Ichiyasu	Doris Panzer	John Wade
Valerie Chenoweth Brown	Ellie C. Insley	R. Thomas Goodrich and Rebecca Patton	Nadine Weil
Judith Ciani Smith	Stuart Jacobson		Rona Weintraub
Rick and Jillian Clark	Carolyn Johnson and Rick Theis	Carolyn H. Pendery	Gretchen Whisenand
Carole and Peter Clum	Emily Johnson and Dick Bricker	Regina Phelps	White Family Trust
Ellie Cohen and Miki Goralsky	Estate of Louise and Don Johnston	Willis and Gloria Price	Cam and Dennis Wolff
Megan Colwell and Bonnie Stewart	Joy Kennedy-Maxion	C. J. and Carol Ralph	
Martha Ehmann Conte	Harvey and Mary King	John and Cynthia Rathkey	
Rigdon and Trish Currie	Nancy Kling	Mark Reynolds and Gretchen Le Buhn	
John Dakin	Lamar Leland	Roberta Rigney	
Martha Day	Robin L. C. Leong	Brett Robertson and Dave Schrader	
Carole E. Deitrich	David A. Loeb		
John and Sara Donnelly	Ewan Macdonald and Kirsten Walker Macdonald Trust		

**Become a member of the Tern Society and create your own legacy of conservation.**  
**Please contact us at 707.781.2554 or [legacy@pointblue.org](mailto:legacy@pointblue.org) for more details.**

Opposite: Point Blue supporters attend an event at Gabilan Ranch. Photo: Julie Chase Baldocchi.

Right: A Point Blue biologist carefully prepares to weigh and measure a Cassin's Auklet chick.

Photo: Point Blue.





## Board of Directors

Geoffrey Gordon-Creed, Chair  
Megan Colwell, Immediate Past Chair  
Manuel Oliva, CEO  
Anne Chadwick, Vice Chair  
Ivan Samuels, Secretary  
David Ackerly, PhD  
Julie Chase Baldocchi, Co-Chair,  
Development Committee  
Ana Galutera  
Avery Hellman  
Ellen Hines, PhD, Chair, Science Advisory  
Committee  
Jeffrey Kimball  
Clinton Moloney, Chair, Strategic Planning  
Committee  
David C. Myles, PhD, Chair, Finance  
Committee  
Peter Norvig, PhD  
Nadine Peterson, Chair, Policy Committee  
Robert S. Shwartz, Chair, Human  
Resources Committee

### Honorary Board Members

Bill Foss  
Carolyn Johnson  
Jack W. Ladd  
Ed Sarti  
Ann Stone  
Steve Thal

## Science Advisory Committee

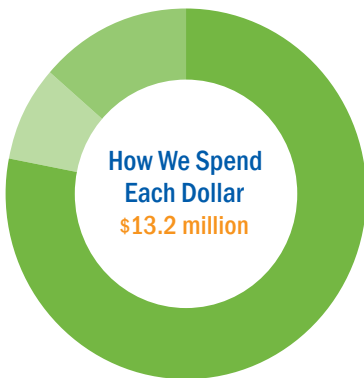
David Ackerly PhD  
Grant Ballard, PhD, Chief Science  
Officer, Co-Chair  
Kristen Dybala, PhD, Point Blue  
Principal Ecologist, Staff Liaison  
Valerie Eviner, PhD  
Ellen M. Hines, PhD, Co-Chair  
Matthew Johnson, PhD  
Adina Merenlender, PhD  
David Myles, PhD  
Karina Nielsen, PhD  
Peter Norvig, PhD  
Jim Quinn, PhD  
Hugh Safford, PhD

# 2018-19 By the Numbers

Consolidated financial statements for the fiscal year ending March 31, 2019



CONTRACTS	39%
FOUNDATION & CORPORATE GRANTS	29%
INDIVIDUAL GIFTS	20%
BOARD-DESIGNATED RESERVES	8%
INVESTMENT & OTHER INCOME	4%



PROGRAM EXPENSES	78%
MANAGEMENT & GENERAL	13%
FUNDRAISING	9%

### Summary of Revenue and Expenses

Contribution, Contract, and Grant Revenue	\$11,681,776
Investment and Other Revenue	\$531,259
Board-Designated Reserves: Strategic Investments	\$995,621
Program Services Expenses	(\$10,301,328)
Fundraising and Administration Expenses	(\$2,907,328)

### Liabilities, Assets, & Net Assets

Total Assets	\$15,161,717
Liabilities	\$1,045,795
Net Assets	\$14,115,922

The condensed financial statements presented above reflect Point Blue's complete set of financial statements for 2018 & 2019, which have been audited by Armanino LLP, Certified Public Accountants, and on which they have rendered an unmodified opinion dated July 23, 2019. The organization's complete audited financial statements and the independent auditor's report can be found at [pointblue.org/about-us/our-accountability](https://pointblue.org/about-us/our-accountability)

## THE YEAR AT A GLANCE

### People Power

**74**

Number of days Senior Marine Ecologist Pete Warzybok spent living and working at Point Blue's Farallon Islands National Wildlife Refuge field station this year, bringing his lifetime total to 2,286

**13,660**


Number of hours STRAW volunteers committed to restoration and education programs this year

**14**

Number of days it took Antarctica Program Leader Annie Schmidt, PhD, to travel from California to our Cape Crozier, Antarctica, research site

**402**

Number of regurgitated pellets and feces samples analyzed by our marine laboratory staff and volunteers as part of our work to understand how diet is affecting recovery of the endangered Least Tern

A photograph of three researchers on the deck of a research vessel. On the left, a woman (Meredith Elliot) wears a pink hard hat, an orange and grey jacket, and green pants. In the center, a man (Ryan Anderson) wears an orange hard hat, an orange life vest over a grey jacket, and blue jeans. On the right, a woman (Carina Fish) wears an orange hard hat, a red life vest over a light blue jacket, and yellow pants. She is holding a clear plastic tray containing several small white vials. They are all smiling at the camera. The background shows the white structure of the ship with various equipment and a sign that reads 'WHITT ON 1-58-3 TO FERRIS LAB 1-58-4'.

(l-r) Senior Scientist/ACCESS Program Coordinator Meredith Elliot and graduate students Ryan Anderson and Carina Fish collect and analyze water and plankton samples aboard a research vessel.  
Photo: Julie Chase Baldocchi.





3820 Cypress Drive #11

Petaluma, CA 94954

T: 707.781.2555

E: [pointblue@pointblue.org](mailto:pointblue@pointblue.org)

[pointblue.org](http://pointblue.org)



## Thank you.

Your continued investment in Point Blue enables us to address the most urgent conservation issues of our time with climate-smart, nature-based solutions to secure a healthy, blue planet. We are grateful for your support, which makes all we do possible.

To make a gift, please contact Nancy Gamble, Director of Philanthropy, at 707.781.2554 or Bennett Smith, Director of Philanthropy, at 707.779.1200. Or give online at [pointblue.org/donate](http://pointblue.org/donate).