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Point Blue Quarterly

Conservation science for a healthy planet

From Data to Action



Ellie M. Cohen, PRESIDENT AND CEO OF POINT BLUE CONSERVATION SCIENCE

Visit Ellie's blog at pointblue.org/blog/sciencenews

For an online version of this announcement, including a list of collaborative Point Blue accomplishments during Ellie's tenure (thanks to your partnership and support!), as well as a letter from our current and immediatepast Board Chairs, please visit **pointblue.org/transition**.

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To Everything There is a Season

Dear friends and colleagues,

After 19 years at the helm of Point Blue, I have decided to step down from my role as CEO. I am deeply proud of all we've accomplished together to advance conservation and secure a healthy future for us all.

The opportunity to have led Point Blue during this time of profound environmental change and consequently this time of great opportunity—has been a tremendous honor. I am filled with pride looking back over the past two decades on the difference we've made for our collective future.

I am also genuinely grateful for your support and friendship throughout my journey here. And what an incredible journey it has been!

When I started in 1999, Point Blue's annual budget was \$2.5 million with 30 staff working out of a former house provided by Audubon Canyon Ranch. Today, our budget is almost \$14 million with over 180 staff, we own our 20,000 square foot Petaluma headquarters, and we recently acquired the 3,000 square foot Rich Stallcup Intern House, also in Petaluma.

Building on our long term studies of land birds, seabirds, shorebirds, and vegetation, we now also study krill, whales, soil, water, microbes, carbon, and more. When I began, most of our data was entered by hand, stored in paper notebooks. Today, we are an informatics powerhouse, managing over one billion ecological observations collected by partners from across the Western Hemisphere—all stored electronically in the "cloud" to advance conservation.

In 1999, we had dozens of mostly public wildlife, land, and ocean management agency partners. Today we've expanded our circle to include over 1,000 ranchers and farmers, 50,000 students and teachers, as well as land trusts and other NGOs. We're advancing conservation on one million privately owned acres—through our STRAW program, Rangeland Watershed Initiative, flooded agriculture collaborations, and meadow restoration partnerships. Our conservation science career-building efforts have fledged from informal internships to world-renowned training and empowerment programs engaging youth, college students, and post-docs.

From PRBO to Point Blue Conservation Science, and from Point Reyes to the United Nations—with official observer status at the global climate change body (the UNFCCC)—we've come a long way together!

What's next? Former Board Chair Ed Sarti will lead a transition committee to launch a national search for Point Blue's new CEO. They will manage a transparent and inclusive process engaging staff, members, partners, and funders. I plan to remain on staff through the end of the year unless my successor is hired sooner.

I'm excited for this new leader to guide the organization in taking bold action to increase the pace and scale of climate-smart conservation. Thanks to your support, Point Blue is stronger than ever, with the Board and staff poised to achieve even greater impact in the years ahead.

Thank you for continuing your generosity to Point Blue, especially important during this time of transition. I hope you will consider making a one-time special gift today at pointblue.org/donate to lay an even stronger foundation for our next CEO's success.

This is a bittersweet time for me personally. Point Blue will always be a part of me and I will always be a part of Point Blue. Thanks again to each of you for giving me the honor of a lifetime these past two decades here at Point Blue.

With heartfelt gratitude always,

Contents



FROM DATA TO ACTION: Point Blue Science Catalyzes Conservation Impact

Above: Ecologist Ryan DiGaudio collects wetland data in the San Joaquin Valley. Photo: Point Blue.











52 Years of Conservation Wins

IN THIS ISSUE

- 2 From the CEO
- 4 From Data to Action
- 12 Rice, Methane, and Data: Win-Win Solutions
- 14 Marian Vernon and the Social Side of Conservation
- 15 Conservation's Frontman: John Alexander
- 16 Living an Impactful Life: Helene Marsh
- 17 News Bites
- 17 Calendar
- 18 Focus

On The Cover:

Alissa Fogg, Central Sierra Project Leader, collecting soil data on a ranch in El Dorado County, CA. **Photo:** Ryan DiGaudio/Point Blue.

Left: Flooding at China Camp State Park. **Photo:** Peter Baye/ USGS.

Center: Black-Necked Stilt, Cosumnes River. **Photo:** Bob Wick/Bureau of Land Management.

Right: Adélie Penguins on ice and in water, Ross Sea, Antarctica. **Photo:** Annie Schmidt/Point Blue.



FROM DATA TO ACTION **Point Blue Science Catalyzes Conservation Impact**

There is something deeply satisfying about recording observations of the natural world, in field notebooks, on data sheets, and, more and more, on electronic devices. Knowing that the moment that you are experiencing, often alone in a beautiful place, will contribute to vast numbers of other observations recorded in standardized ways by thousands of other people across decades, gives one a sense of belonging. It also serves as a reminder of our proper, humble place in the natural world.

Long-term ecological databases are foundational to wise natural resource management. It is only by establishing "baselines of normality" over decades of observation and record-keeping that we can understand when human-caused changes are perturbing our environment in unprecedented ways, thereby calling us to action. Such data also contain vital information about what action is likely to be most effective.

Point Blue maintains several of the longest-term ecological databases in the world, beginning in the late 1960s at Palomarin and in the early 1970s

Opposite: Point Blue partner biologists (with NRCS) gather data during a training workshop near Dye Creek, CA. Photo: Point Blue.

on the Farallon Islands. And we have added many more databases that span decades since then—from the Sierra, throughout the Pacific Flyway, to Antarctica. These databases are a key element of Point Blue's long-term strategy, mission, and vision, helping us to fill a unique niche in conservation science.

Protecting communities from rising seas, securing critical habitat for migratory

birds, and providing the basis for new conservation policy—Point Blue's data drives conservation action. The stories that follow are a sampling of the many ways Point Blue data powers change. Read on to learn more about how we're putting data into action to make a tangible difference for the health of our planet. 💙

by Grant Ballard, PhD, Chief Science Officer

facts:

Point Blue Data, By The Numbers

- 52~ Number of years (and counting!) that we've been continually collecting data at our Palomarin Field Station. This information—our longest-term data set—allows our scientists to understand both natural and human-created changes over time, in order to guide conservation action.
- Number of technical reports and peer-reviewed scientific 2,176 articles by Point Blue scientists to date. We use these databased findings to address real-world challenges, working handin-hand with land, ocean, and wildlife managers to maximize nature's benefits for wildlife and people.
- Number of bird and vegetation observations on the California ~ 50 million Avian Data Center (CADC), hosted by Point Blue. A regional node of the Avian Knowledge Network, CADC integrates data on birds and ecosystems to improve conservation outcomes.

Number of ecological observations managed by Point Blue, billion+ comprised of our work and that of our collaborators across the country and the world.

6



Ariel view of the Sacramento River Delta. **Photo:** Bill Dally.

From Space to Spigot: Guiding Water Management with Satellite Data

A drier than average winter hit California in 2017—only a year since the recent drought (2013-2016) was declared over. In a warming climate, extreme drought is forecast to become more of the norm for California, making it harder and harder to meet the state's many demands for water.

Getting current and accurate water data into state and regional decisionmaking is critical for sustaining healthy ecosystems and human communities into the future. With this aim, Point Blue and partners at The Nature Conservancy, US Fish and Wildlife Service, the California Landscape Conservation Cooperative, NASA, and others developed Water Tracker. This easy-to-use online system harnesses satellite imagery to show near-real time surface water distributions in California's Central Valley. Despite the importance of water resources in this region, data on available surface water had not been available until the creation of Water Tracker.

Resource managers and planners can now use Water Tracker to decide how best to allocate limited freshwater resources to meet the needs of wildlife and people. This includes moving water—through complex systems of irrigation ditches and other water control structures—to natural and agricultural-based wetlands and wildlife refuges to benefit millions of waterbirds, other wildlife, and human communities.

Water Tracker is guiding dynamic conservation and has helped answer important questions about the impact of droughts and floods on the landscape. It has also helped address emerging health concerns about the effect of West Nile Virus control efforts on bird habitats. It has been particularly useful in guiding The Nature Conservancy's conservation incentive program, BirdReturns, which has been implemented on tens of thousands acres of Central Valley agricultural fields since it was established in 2013. "By integrating water distribution data from Water Tracker into our decisionmaking about when and where to pay farmers to flood, we have seen an impressive return on investment with some of the highest densities of shorebirds ever recorded in the Central Valley in our BirdReturns fields," says Mark Reynolds, Lead Scientist of the California Migratory Bird Program at The Nature Conservancy and former Point Blue board memeber.

Water Tracker paints a near-real time picture of water availability, and is already being used to implement successful conservation actions. Given its use of publicly accessible satellite data, Water Tracker is an example for other regions and could expand broadly to help increase the pace and scale of climate-smart conservation of water and wetlands. See for yourself by exploring it online at pointblue.org/watertracker! **>**

by Matt Reiter, PhD, Principal Scientist/ Quantitative Ecologist



Lupines bloom above Stinson Beach. **Photo:** Tupungato.

Securing a Better Tomorrow for California's Coasts

I sat on the sandy expanse of Stinson Beach on a recent warm day, imagining the future of this iconic part of the Marin County shoreline. When studying climate change is your day job, such visions—a tiny strip of beach, the area dramatically altered by flooding and erosion caused by rising seas—can be depressing. On this day, however, my thoughts were hopeful. I knew that the County of Marin was not sitting idly by, but embracing the science of sea level rise and working with Point Blue to develop solutions that emphasize working with nature, such as building coastal dunes. It felt good knowing that Point Blue is playing such an important role in securing our shorelines here and elsewhere through the partnerships forged in the Our Coast Our Future (OCOF) project.

Part of Point Blue's work involves translating science and facilitating information exchange between producers and consumers. The OCOF web application (data.pointblue.org/ apps/ocof/cms) is the perfect example of a co-developed product that delivers complex science in an accessible, userfriendly format.

Here's a look at how we turn data into action through OCOF. First, our partners at the USGS Pacific Coastal and Marine Science Center run a series of computer models based on actual storm data known as the Coastal Storm Modeling System (CoSMoS). CoSMoS takes projected climate and wave conditions, including sea level rise, and tells us where we might expect to see flooding and erosion at the coast. The team turns the outputs into information that you can see on a map—like what part of the Stinson Beach parking lot might be flooded from three feet of sea level rise and a big coastal storm.

The data then gets passed to the Point Blue Informatics Team, who transform the data for display. Once we have new data in the OCOF map viewer, USGS and Point Blue provide technical training and support to folks like the planners at Marin County. Marin County was one of the first in the Bay Area to use OCOF to map what—and who—might be vulnerable to rising seas and coastal storms and to begin collaborating with communities to prepare for a more resilient future. Their forward-thinking and collaborative work has earned them two Achievement Awards from the American Association of Planning.

OCOF has helped more than 70 city, county, regional, state, and federal agencies across 95% of the urbanized coast of California to plan for climate change. Our coast is on the front line of climate change. Through collaborative efforts like OCOF, we can tap the power of science, partnerships, and outreach to secure a better tomorrow. **>**

by Maya Hayden, PhD, Coastal Adaptation Program Leader 7

River Power

The Cosumnes River is a wild one. Flowing from the western slope of the central Sierra Nevada to the Sacramento-San Joaquin Delta, it is one of the few rivers in the region without a terminal dam or hydropower facility. The Cosumnes rises with rain, bringing water, seeds, and nutrients to encourage the growth of trees, shrubs, and wildflowers in its floodplain (the area that is consistently flooded when the river rises). This is how the Cosumnes River watershed has managed to hold on to some of the best remaining riparian habitat in the Central Valley, home to many birds, fish, and other wildlife. Nonetheless, levees, water diversions, and land-use change have altered the ecological function of the Cosumnes floodplain over the years.

Point Blue has studied the Cosumnes ecosystem for decades. Our work has included songbird population monitoring, developing statistical models to inform adaptive conservation planning, evaluating shorebird response to flooding, and many other projects. Our long-term data sets are used to help guide management of the Cosumnes River Preserve, home to 250 bird species, more than 40 fish species, and some 230 plant species.

Taking our cue from the river, Point Blue is now collecting data to learn whether river power can be tapped to improve the success of riparian habitat restoration. Together with partners at The Nature Conservancy, we have designed a unique experiment to discover whether restoring more of the river's natural flooding process is enough to also increase thriving riparian habitat, or whether planting

Cosumnes River Preserve, near Galt, California. **Photo:** John Ciccarelli/Bureau of Land Management. and irrigation are still necessary. At a large restoration site where a levee has been breached to allow more regular flooding, we're testing the effectiveness of three approaches: no planting at all, a reduced planting effort, and intensive planting and irrigation of vegetation. By collecting and analyzing data that tracks changes in the vegetation, bird community, and other factors, we will learn which combination of restoration methods is the most cost-effective without sacrificing restoration results.

Experiments like ours are critical to advancing the field of ecological restoration as we face an uncertain future. Conventional methods may not hold up as well to changing weather conditions, shifts in species distribution, and disruptions to ecosystem processes due to climate change. But approaches that also restore connections between rivers and floodplains can provide multiple benefits to wildlife and people, including reducing flood risk elsewhere, recharging groundwater, and improving resilience to change. And, if allowing floodplains to be inundated more frequently helps riparian vegetation to return on its own, we can focus more intensive restoration efforts in the places that need the most help.

Because riparian habitat is so important yet so limited in the Central Valley, enhancement of river ecosystems is a priority for Point Blue and our partners. A long-term riparian restoration target of more than 300,000 acres has been set by the Central Valley Joint Venture—a public-private conservation consortium working to protect and restore habitat for birds. Point Blue has been an active Joint Venture leader for over 2 decades. Revealing the most effective methods through our data will help Point Blue and our partners achieve this ambitious goal, and ultimately inform the restoration of other riparian ecosystems that are capable of supporting large, healthy populations of wildlife. \triangleright

by Kristen Dybala, PhD, Senior Research Ecologist



Rangeland Science with a Personal Touch

I spend a lot of time collecting data including on soil composition, bird point counts, and vegetation measurements that help us understand and evaluate ecological health on working lands. My work is part of our Rangeland Monitoring Network, a large scale effort to preserve the ecological value of rangelands and recommend conservation actions that enhance the benefits they can provide for wildlife and people.

While information has long been collected on public lands, data on private lands has been much more limited. And Point Blue's approach sets our efforts apart from those limited collection efforts. As just one example, we present "landowner letters" that make our research relevant and meaningful to the landowner.

We hand deliver these reports and sit down together to review what we found and what it might mean for the rancher. When I write these reports, I think about who the landowners are and what might

be most useful to them. Each packet is personalized, so they don't get a generic report full of jargon and graphs that you'd need a PhD to interpret. Instead, they receive information broken down into layman's terms and simple araphics to help them visualize the data

Point Blue's personal approach builds trust.

Landowners get to see that we're not just scientists collecting data and leaving; we are real people, engaged with them in a mutual-learning process. And we want our letters to make it more likely that our data will be used to inform management decisions and



facilitate longlasting dialogue. Then the question becomes... *does it?*

I checked in with one rancher I work with, Carrie Richards of Yuba County, California, to ask how our landowner letter helped inform conservation choices on her property. She replied with a photograph (left), pointing out "a tree that Kate convinced me to save for bird habitat."

Carrie went on to praise Point Blue's "way of helping people look at the whole picture-not just grass growth, not just how many cows or sheep you can carry, but how to look at the birds, wildlife, plant life, soil, and water to understand the health of the land." She cited the landowner letter as a big motivator, saying "after receiving my land owner letter I felt very proud of my bird population and plant diversity and was inspired to improve it." And I'm still smiling from her conclusion: "I am completely switching the way we run our ranch, and I credit Kate as one of the biggest influencers of this monumental change."

So do Landowner Letters make a difference? Just ask the cows and the birds. 📎

by Kate Howard, Partner Biologist, Point Blue and NRCS

Above: A dead blue oak tree (behind cows) remains valuable wildlife habitat. **Left:** Rancher Carrie Richards and son Lincoln. **Photos:** Carrie Richards.





Science Helps \$500M in Wetland Restoration Funds Flow

They say that good things take time. And the story of how Point Blue's science helped lead to \$500 million in grants for wetland restoration including \$2.7 million for our STRAW (Students and Teachers Restoring A Watershed) program—is a perfect illustration.

In the early 2000s, Point Blue and other groups were becoming more and more concerned with the effect that sea level rise in the Bay Area could have on the birds, wildlife, and human communities that depend on tidal wetlands. These wetlands had already suffered losses and degradation from development, and early efforts were in place to conduct restoration projects. Now, the local conservation community was afraid that these restoration efforts would be in vain if sea level rise put these restored wetlands underwater in fifty years. The community needed tools to determine where restoration would be most effective—and we needed resources to do the restorations themselves.

Point Blue stepped in to do one of the things we do best: making sure critical science was accessible to those who needed it most. Culminating in a 2011 publication, we took raw data on potential sea level rise in the San Francisco Bay and created elevationbased spatial models that visually showed how sea level rise would affect wetlands around the bay. These maps were used by a coalition of partners who worked together to chart a path for future wetland restoration in the estuary. And this group came up with a stark conclusion that was the backbone of an important scientific report: We could still help birds, wildlife, and people with targeted wetland restoration, but we needed to start now and act fast.

Our collaborative research—along with the hard work and leadership of many dedicated partners—helped lay the scientific foundation for Measure AA, a proposition to raise a half-billion dollars for wetland restoration over 20 years. Placed on the ballot by the San Francisco Bay Restoration Authority in



June 2016, Measure AA passed with overwhelming voter support.

As icing on the cake, Point Blue was thrilled and honored to be awarded \$2.7 million in the Restoration Authority's first round of grants, which was just announced this spring. We'll be using these funds to implement climatesmart wetland restoration around San Francisco Bay. Through STRAW, we will engage more than 5,000 North Bay students, as well as teachers and community members, to provide vital habitat for wildlife, sequester carbon, and reduce flooding. We couldn't be more grateful for the great work of our partners and to Bay Area voters who supported restoring the health of San Francisco Bay, a critical step to preparing for our climate-altered future. ٧

by Zachary Warnow, Director of Communications

Opposite: Alviso Wetlands and Diablo Mountain Range. **Photo:** Y. Helfman. **Above right:** Banding California Gull chicks at Mono Lake. **Photo:** Nora Livingston.



Data-Powered Conservation Victories Through the Decades

Data is a necessary ingredient in almost any formula for conservation achievement. Reliable knowledge—about both the problem and the best solution—supports stakeholder agreement and can guide the chosen action. Point Blue has a deep and long commitment to unlocking the power of long term ecological data for conservation impact. The following are highlights of pivotal conservation accomplishments that have been catalyzed by Point Blue data:

1969: Point Blue data on key shorebird feeding areas resulted in the National Park Service ensuring that Limantour Estero would remain a natural area.

1982 - 1990: Our data contributed to the establishment of three National Marine Sanctuaries and an International Biosphere Reserve in Central California.

1987: Point Blue led the campaign to end gill-net fishing in Central California, resulting in a ban on gill-netting in the Gulf of the Farallones and in northern Monterey Bay.

1988: Point Blue began the Pacific Flyway Project to document the reliance of shorebirds on major wetland sites in western North America. Our research resulted in the designation of San Francisco Bay as a site of "hemispheric importance" in 1989.

1993: Our Farallon science was crucial to the passing of a law to prevent the hunting of white sharks in California state waters.

1994: Point Blue data proved crucial in the State Water Board decision to protect the Mono Lake ecosystem.

1996: 20 years of Point Blue data resulted in the federal protection and listing of the Western Snowy Plover under the Endangered Species Act and protection of many miles of coastal dune habitat in California.

2000: Point Blue data helped to develop catch limits on commercial squid, a critical food base for marine bird and mammal populations.

2010: Point Blue data contributed to the establishment of Marine Protected Area regulations around the Farallon Islands, as part of the California Marine Life Protection Act.

2014: Point Blue data was instrumental in reducing by half the planned salvage logging of the Yosemite Rim Fire region and prioritizing where logging should happen to best conserve the benefits of fire to birds, other wildlife, and ecosystem function.

2016: Point Blue helped establish the scientific basis for the designation of the Ross Sea (Antarctica), the world's last near-pristine ocean, as a Marine Protected Area (MPA). This MPA designation prohibits commercial fishing across a vast area of the Ross Sea and protects its rich food web, including Adélie Penguins, Antarctic toothfish, and Weddell seals.

Rice, Methane, and Data: Win-Win Solutions

Rice is a grass. Or more precisely, the seed of a grass. But its miniscule stature belies the significance of this venerable grain. Rice is one of the world's most important foods, providing more than 3.5 billion people with at least 20% of their calories each and every day. And with the loss of wetlands worldwide, rice fields have become globally important agricultural ecosystems, serving as sources of water, food, and resting places for migrating birds and other wildlife.

Point Blue and our partners have long documented the importance of California's rice fields to birds like breeding Black Terns, migrating Dunlins, and wintering White-Faced Ibises. These and millions of other birds along the Pacific Flyway once depended upon a vast complex of seasonal and permanent wetlands throughout the Central Valley. Today only around 10% of these historic wetlands remain. Flooded rice fields can serve as surrogate wetlands, providing many of the ecosystem services of natural ones. And like some wetlands, rice farming produces substantial amounts of methane—a powerful contributor to climate change.

We wanted to know how we could maximize the benefits of ricelands for birds while reducing negative climate impacts, and we identified three priority actions:

- pin-point the farming practices that most benefit waterbirds;
- work with our partners to help make those practices stick; and,
- strike the right the balance between enhancing the ecological function of rice fields for birds while also minimizing greenhouse gas emissions.



To accomplish these objectives, we produced rigorous, applied science in close collaboration with diverse partners, including Audubon California, The Nature Conservancy, the California Rice Commission, the Natural Resources Conservation Service, and local rice growers. We hitched up our waders and went into the field to collect data on bird abundance and diversity. And we got a "bird's eye view" of the situation by using satellite imagery to develop models of surface water. After evaluating our results, together we put our data into action to secure conservation wins for wildlife and people.

Our collaborative research on wildlifefriendly rice farming practices helped lay the groundwork for two programs that help cover rice growers' costs to enhance habitat for birds. First, the Natural Resources Conservation Service created a program which has provided more than \$13 million of federal Farm Bill funds to enhance habitat on 150.000+ acres of California ricelands from 2012 to the present. Second, beginning in 2014, The Nature Conservancy created an innovative market-based program called BirdReturns to fund similar practices. Both of these programs, supported by Point Blue data, help sustain agriculture while also providing wildlife habitat when fields are not in production.

As we made this exciting progress, we were concerned about methane and discovered that not all production methods are equal. We examined several rice growing methods that reduce methane emissions—including reduced flooding in winter, removal of rice straw after harvest (baling), and drill seeding (a planting technique that minimizes soil disturbance)—to determine whether they still maintain habitat quality for birds. Our findings were used to help develop a protocol for the California Air Resources Board which allows rice growers to participate in California's carbon market and earn financial rewards for their stewardship.

Our work on ricelands is just one of the ways Point Blue data is helping us realize our vision for a healthier Central Valley—one that provides more wetland habitat for wildlife than it does today, and at the same time continues to feed millions of people and sustain valuable ecosystem services. Looking forward, we plan to expand our collaborative, multibenefit approach to different types of agriculture. Up next: we're investigating the potential for alfalfa production to benefit birds and recharge groundwater. Stay tuned for the results! 🜔

by Tom Gardali, Pacific Coast and Central Valley Group Director



MEET THE TEAM Marian Vernon and the Social Side of Conservation

"Environmental problems are social problems, and conservation is a social process," says Marian Vernon, Point Blue's Sierra Meadow Adaptation Leader. Marian believes that we can achieve better conservation outcomes by understanding the social dimensions of environmental issues. "Humans are the source of our most pressing environmental crises," she says, "and they are also the solution."

As a graduate student at the Yale School of Forestry and Environmental Studies, Marian investigated the institutional and social dynamics of wildlife conservation in the greater Yellowstone ecosystem. "In the case studies I examined, decisions were not being informed by science, and social conflict was rampant. I wanted to understand why."

Like the natural sciences, social sciences are data-driven. Marian conducted stakeholder interviews and analysis to understand the source of conflict and identify integrative solutions. Her research led her to conclude that natural science alone can't solve the challenges of climate change, habitat loss, and other threats. As she puts it, "Conservation science is a diverse and interdisciplinary field. We need to draw on natural and social sciences to shape effective collaborations and partnerships, and to develop technical and social solutions that last."



When Marian joined the Point Blue team in November 2017, she brought along her holistic approach to conservation. She views her work through a social science lens whenever she engages with people, organizations, and agencies—"which is all the time!" she says. Her current projects include developing a framework to guide meadow restoration in the Sierra Nevada, partnering with land trusts to incorporate climate-smart conservation principles into management of private lands, and working with

Left: STRAW Sierra meadow restoration. Photo: Melissa Pitkin/ Point Blue. Above right: Marian Vernon. Photo: Point Blue.



schools in Plumas County, California, to pilot our first-ever STRAW meadow restoration in the Sierra Nevada.

According to Marian, Point Blue is poised to lead the way with the dynamic approach to conservation she champions. "Point Blue recognizes the importance of engaging and working with people to apply conservation science to our most pressing environmental problems," she says.

This comprehensive outlook is critical to Marian's work to secure the health of Sierra Nevada meadows, which provide wildlife and people with benefits like carbon sequestration, groundwater recharge, and water quality improvements. "We need to increase the pace and scale of climate-smart meadow restoration and protection," Marian says. "This is a challenge we're addressing through both our conservation science expertise and our skills at coordinating multiple partners, agencies, and community stakeholders around a common goal."

Looking forward, Marian's insightful approach promises to have far-reaching impact. "I find it very rewarding," she says, "to develop tools and approaches that others can use on meadow restoration and land conservation in the Sierra Nevada and beyond."

by Stacey Atchley-Manzer

PARTNERSHIP Conservation's Frontman: John Alexander, Klamath Bird Observatory

"Imagine applying the stage presence of Mick Jagger to bird conservation," says Point Blue Research Director Nat Seavey, PhD. "That's John Alexander."

For more than 20 years, one of Point Blue's most enduring partnerships has been with Klamath Bird Observatory (KBO) and its "rock star" Executive Director, John Alexander, PhD.

Just as when great musicians get together, collaboration across conservation organizations can spark new ideas that wouldn't have been possible without working side-by-side. "It's about relationships and friendships," says John. "Our partnership with Point Blue has continued to grow, and new and important outcomes continue to emerge."

Based in the ruggedly beautiful and wildlife-rich Klamath-Siskiyou bioregion of southern Oregon and northern California, KBO applies high caliber science to bird monitoring and research projects that improve natural resource management. "John founded KBO (along with C.J. Ralph—also a Point Blue co-founder) on values that align with those of Point Blue: long term monitoring, data sharing, and using birds as indicators of the health of the world around us," continues Nat. "Partnering with KBO just makes sense."

Essential to this natural partnership is an exceptional willingness to collaborate and share science. Aggregating bird observations and other scientific information through exchanges like the Avian Knowledge Network, for example, produces more robust datasets that help natural resource managers better prioritize and protect important habitat.

And KBO and Point Blue, along with other partners, are informing climatesmart decision making through the collaboratively-developed Pacific Northwest Climate Change Avian Vulnerability Tool. The tool is comprised of models that were developed by combing bird observation data—from 23 different studies by 17 different agencies—with climate and other environmental data to predict the occurrence of vegetation and density of birds for current and future climate conditions. Resource managers can use the tool to understand the effects of climate change on 26 bird species found in the Pacific Northwest. Understanding how bird distributions and abundances are likely to be altered can inform management and planning activities, resulting in more robust conservation. The tool is currently being used to guide a landscape-scale forest restoration project in the Snoqualmie National Forest in Washington State.

"One of my biggest conservation concerns," says John, "is that great information and data go unused, and thus management decision making is often more uninformed than it needs to be. Much of our collaboration with Point Blue involves making data available, producing relevant published science with the data, and then ensuring that the science is delivered in a meaningful way to those who can do good things for birds."

Shared science can also help both organizations amplify impact. "KBO has been instrumental in helping Point



John Alexander, Klamath Bird Observatory Executive Director. **Photo:** Courtesy John Alexander.

Blue increase the pace and scale of ecosystem conservation in the West," says Geoff Geupel, Point Blue's Emerging Programs and Partnerships Group Director and long-time collaborator with John. "We can now ask questions at scales never possible before."

The KBO-Point Blue partnership helps keep John energized and hopeful in spite of the daunting environmental issues of our day. "It's great to see conservation actions that are successful and that are informed and measured by science," he says. "We need to care for this partnership and be strategic as we move forward towards even deeper and more impactful collaboration."

by Stacey Atchley-Manzer

LIVING AN IMPACTFUL LIFE Helene Marsh

Protecting our planet is far more than an interest for Helene Marsh—it's a way of life. A passionate advocate for the natural world, Helene has a master's degree from the Bren School of Environmental Science and Management at the University of California, Santa Barbara. She is also the owner/developer of a LEED Platinum certified home and a dedicated leader inspiring positive change in her community. It's no surprise that Helene chose to make a gift to Point Blue as part of her conservation legacy.

Formative Inspirations

"My father studied chemistry and understood early on, alongside Rachel



Carson and others, that pesticides were toxic for the environment. He was a pioneer in organic farming in the 1960s and I was raised on organic food. His work inspired me to study environmental science and become involved in conservation."

The Importance of Taking Action Now

"We know of only one planet like the earth, our home, and it is under extreme threat now due to climate change. Now more than ever, we need to understand how to conserve what we have to prevent further decline of the planet. We must do

> everything we can to protect the planet through financial support of effective conservation groups like Point Blue, and engagement in education, volunteering, and building community."

Creating a Conservation Legacy

"I heard Ellie Cohen give a talk about climate change 10 years ago when I first arrived in Marin. I was so impressed by Ellie's talk and Point Blue's work that I've been a supporter since then. Over the years, I've enjoyed so many interesting learning experiences at Point Blue events. I have observed the growth and impact of Point Blue Conservation Science in that time and am proud to support the organization's continued success into the future."

Hope for a Healthier Tomorrow

"The people that I meet who are dedicated to environmental conservation work, such as the Point Blue staff, inspire me daily and give me hope. In the last 18 months I have been advocating for government agencies in Marin to use 100% renewable electricity to reduce greenhouse gas emissions and support a clean energy economy in California. I'm particularly excited about Point Blue receiving official observer status as a non-governmental organization to the United Nations Framework Convention on Climate Change. I hope that Point Blue's work will become more known internationally and serve as an example for conservation work around the world." 🕥

Like Helene, you can make a lasting difference for birds, wildlife, and human communities by making a bequest to Point Blue in your will or trust. When you let us know about your gift, you'll become a member of the Tern Society, our community of visionary legacy donors who are committed to securing a healthy blue planet for future generations.

To learn more, please contact Nancy Gamble, Director of Philanthropy, at 707.781.2555, ext. 324 or at legacy@ pointblue.org.

news bites



Sea of Cortez Trip: an Unparalleled Nature Experience

A group of supporters joined three Point Blue staff in April for an incredible week on the Sea of Cortez aboard the *National Geographic Sea Bird*. The opportunity to experience nature in such a stunning setting alongside our scientists was truly unique. As board member Julie Chase Baldocchi wrote, "Having Ellie and Grant from Point Blue there was excellent and their talks were a highlight." We hope you'll join us on our next adventure!

Congratulations to our 2018 Award Winners!

Outstanding Conservation Partner 50-Year Anniversary Award: Point Blue is celebrating 50 years of continuous presence on the Farallon Islands, in partnership with USFWS. Colleagues Anne Morkill, Gerry McChesney, and Jonathan Shore of the Farallon Islands National Wildlife Refuge have been named recipients of the this award.

Outstanding Foundation Partner: We're proud to recognize Ivan Samuels of March Conservation Fund for his work in establishing Point Blue as an early player in the use of miniaturized tag technology to track small birds. Ongoing support has helped establish Point Blue as a leader in migratory ecology coupled with long term data collection. We are also grateful to Ivan for serving on our Board of Directors.

Outstanding Land Steward: This award has been given to Joe Silveira of USFWS. For more than 20 years, Joe has been a major force helping to restore the Sacramento River system. He continues to push land management in innovative, climate-smart directions in partnership with Point Blue.

Point Blue to Unveil New Website

Watch for our brand new website, scheduled to launch in late June—it might even be live now! Visit pointblue.org.

POINT BLUE CALENDAR

SUPPORTER EVENTS

SONOMA MOUNTAIN MUSIC FESTIVAL JULY 7, 2018 12:00-7:00 PM FIVE SPRINGS FARM 4497 OLD ADOBE RD., PETALUMA, CA



Enjoy a day of live music in the beautiful setting of Five Springs Farm in Petaluma. Hosted by Avery Hellman, this day of performances will also feature an afternoon nature walk, tour of a STRAW restoration site, and silent auction. Pack a picnic lunch or bring a potluck item to share. A \$20 donation fee is suggested, with proceeds to benefit Point Blue. Featuring live music by: American Nomad, Ismay, Jeffrey Manson Band, and Rainy Eyes. To RSVP or for further information, please visit sonomamountainmusic.app. rsvpify.com.

VISIT POINT BLUE!

Visit our field sites and learn about our cutting-edge studies. Explore online at pointblue.org/walks or contact Lishka Arata at larata@ pointblue.org.

SCIENCE EVENTS

INTEGRATIVE SCIENCES AND SUSTAINABLE DEVELOPMENT OF RIVERS JUNE 4-8, 2018 LYON, FRANCE	Point Blue's Kristen Dybala, PhD, will present on carbon sequestration in riparian forests.
ANNUAL MEETING, ECOLOGICAL SOCIETY OF AMERICA AUG 5-10, 2018 NEW ORLEANS, LA	Point Blue's Brent Campos and Ryan Burnett will discuss implications for a future of extreme wildfire events.
2018 CALIFORNIA ADAPTATION FORUM AUGUST 27-29, 2018 SACRAMENTO, CA	This biennial event fosters knowledge exchange, innovation, and mutual support to create resilient communities throughout the state. Ellie Cohen serves on the Advisory Committee and Dr. Libby Porzig will co-lead a session on ecosystem services.

Above left: Ellie Cohen and a juvenile Brown Booby aboard the *National Geographic Sea Bird*. **Photo:** Julie Chase Baldocchi. **Above:** Isaiah Thalmayer, Restoration Project Manager and musician, performs at 2017 Sonoma Mountain Music Festival. **Photo:** Lishka Arata/Point Blue.



focus: Whisper Song

Point Blue's founding naturalist, Rich Stallcup, inspired several generations of birders and conservationists. His original Focus essays imparted bird identification skills and love of nature. Find the entire collection online at pointblue.org (search for "Focus"). The column excerpted below, originally published in spring 2012, was one of the last Rich wrote before he died. We feel his spirit when we hear birds sing—or whisper their songs.

Throughout the world, the songs of birds are perhaps the most diverse, ethereal, and spirit-reviving sounds there are. In the spring, veteran males sing loudly from defined territories to attract mates and to threaten other males of the same species, warning them to stay away. All species (and some subspecies) have their own unique music.

Whisper songs are different and special, barely if at all known to even the most attentive naturalists or birders.

After accidentally hearing my first whisper song (I hadn't even known there was such a thing), I wrote in my journal "a whisper song is a complicated, quiet melody that Steller's Jays sing when



A human must be silent and close to be allowed entry to this hushed, warbling symphony that may roll on for more than two minutes. The singer never seems to breathe during its solo—nor does the other jay, "cooing" nearby.

Song Sparrows can deliver a whisper song that is totally different from their normal sounds, and maybe only during the fall. If heard at all by birders it may remind them of some kind of thrasher singing in the distance. I have charged off through coastal scrub searching for this rare singer only to flush a Song Sparrow a few feet in, still whispering a long, very complicated, discordant melody.

Another whisper song variation consists of delivering the primary song muted in volume. Recently on a bird walk some of us watched a Song Sparrow perched in a small patch of tules, powered up and postured up to sing. We were amazed when the utterance delivered was a barely audible, high reproduction of its bold song. Might this happen to be a youngster not yet ready to go full blast? Might whisper song happen when a wandering male finds itself in the depths of an already established male's territory?

No one knows for sure! 🕥

Rich Stallcup (1944–2012) was a Point Blue co-founder and our naturalist extraordinaire. His knowledge continues to deepen our appreciation of all things wild.

FROM DATA TO ACTION 19

Point Blue is deeply grateful to Point Reyes National Seashore, the Farallon Islands National Wildlife Refuge, Cordell Bank and Greater Farallones National Marine Sanctuaries, and Tomkat Ranch Educational Foundation for providing facilities and field stations where we work.

We gratefully acknowledge all our generous donors on our website. Please see www.pointblue.org/supporters. Thank you!

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FARALLON PATROL Our Farallon Islands program relies upon the skills 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 acknowledge all Patrol skippers in our Annual Report.

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"STRAWLINGS" Bird-A-Thon team. Photo: Point Blue.

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Point Blue Conservation Science 3820 Cypress Drive, Suite 11 Petaluma, CA 94954 t. 707.781.2555 f. 707.765.1685 e. pointblue@pointblue.org **pointblue.org**

Save the Date!

Bird-A-Thon is back. September <u>19-October 19, 2018</u>

Visit pointblue.org or contact Jaime Lilly at jlilly@pointblue.org for more details.

Point Blue • Advancing nature-based solutions to climate change, habitat loss, and other environmental threats for wildlife and people, through science, partnerships, and outreach.