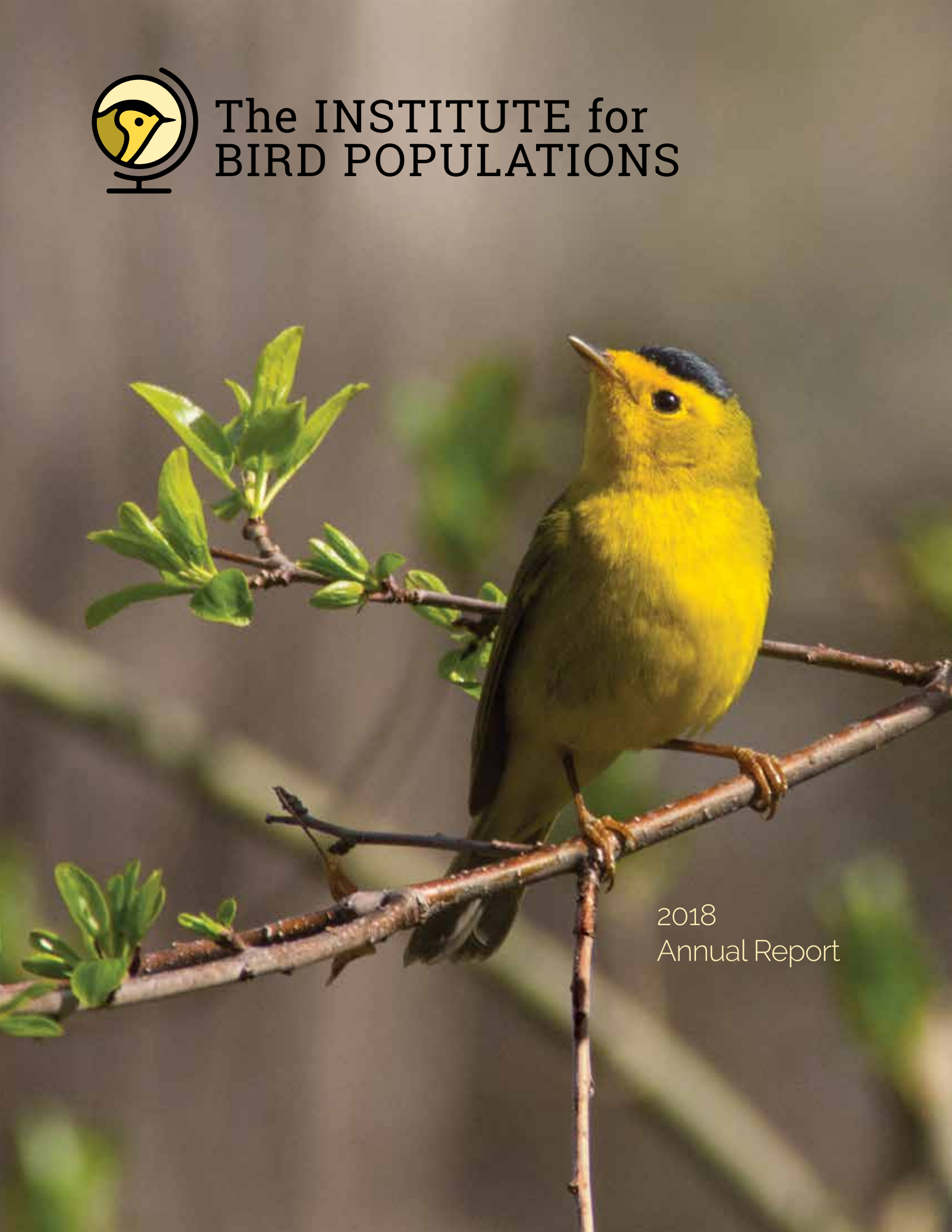
The INSTITUTE for BIRD POPULATIONS



2018
Annual Report

The INSTITUTE for BIRD POPULATIONS

www.birdpop.org

IBP year-round staff plus several board members and associates in Marshall, California. Left to right, front row: Morgan Tingley, Lauren Helton, Lynn Schofield, Mandy Holmgren, Bob Wilkerson, Edward Pandolfino. Back row: Chris Ray, Deborah Mills, Peter Pyle, Rachel Blakey, Jerry Cole, Rodney Siegel, Danielle Kaschube, Ron Taylor, Jim Saracco, Steven Albert, Helen Loffland, Kelly Ground. Staff not pictured: Kim Kayano.

The Institute for Bird Populations studies the abundance, vital rates, and ecology of bird populations to enable scientifically sound conservation of birds and their habitats.

IN THIS REPORT

IBP Needs Your Support!

We rely on support from people like you to continue our work. Please consider a tax-deductible contribution, and multiplying the impact by encouraging friends and family to support IBP. Use the donation envelope included in this report, donate through birdpop.org, or send a check to IBP, P.O. Box 1346, Point Reyes Station, CA 94956. You can also donate online at birdpop.org/pages/getInvolved.php. Thank you!

On the cover: Wilson's Warbler
Photo: Paul Sparks

A Message from IBP's Executive Director

IBP's original logo was designed by our founder, David DeSante in 1988, and drawn by the acclaimed wildlife illustrator, Keith Hanson. It is a beautiful piece of art, particularly when viewed at full size, so that each of the 36 accurately rendered birds can be identified to species.

Dave recently described the symbolism in the original logo:

"The intent was to envision the Earth held in balance within a yin-yang symbolism by a wreath of flying birds. My intent for IBP was that the symbolism of balance would underlie IBP's work and the manner in which that work would be accomplished… The logo also implied that IBP's focus would include a global, as well as local, emphasis."

The original logo remains a beloved part of IBP's history, but in recent years has not always translated well to digital media or proven easy to reproduce on apparel.

This year, we decided to adopt a new logo to convey IBP's identity and mission effectively when rendered at any size and in diverse media. To preserve our original logo, we will retain it as IBP's official seal.

We wanted a simple, memorable image for the logo that would a) feature one or more birds, as studying and conserving birds remains the core of our mission; b) ensure that those birds are easily identifiable, reflecting our emphasis on scientific accuracy; c) render well at multiple sizes and in diverse media; and d) pay homage to the original logo by incorporating the Earth.

In the design we chose (see front cover), the globe represents IBP's continuing commitment to conserving bird populations around the world, irrespective of political boundaries. The bird is a Wilson's Warbler, a charismatic Neotropical migratory songbird that we work with in three of our major programs: MAPS (Monitoring Avian Productivity and Survivorship), MoSI (Monitoreo de Sobrevivencia Invernal), and the Sierra Nevada Bird Observatory. The dominant color of the image is yellow, the color of hope in many traditions, and is intended to help convey our belief that our efforts to conserve birds will make a difference, and our hope for a future with diverse and abundant birdlife.

In the pages that follow, we describe some of IBP's activities and accomplishments in 2018 – may they give you some hope as well.

In friendship,

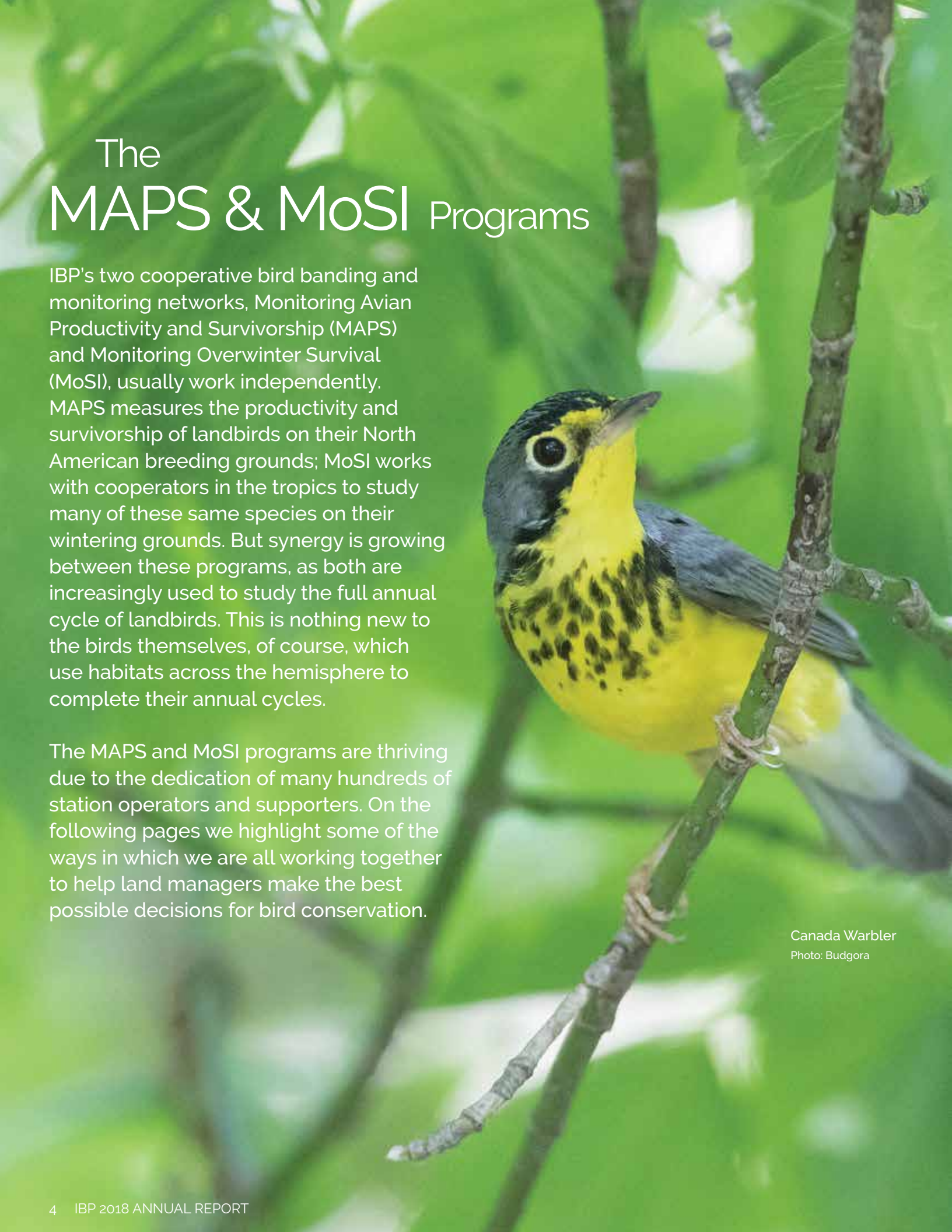
Rodney Siegel, Ph.D.

Clark's Nutcracker, a species that may be jeopardized across much of its range because of losses of Whitebark Pine to mountain pine beetles and white pine blister rust. IBP is assessing population trends and ecological relationships of Clark's Nutcracker populations in five western national parks. Photo: Tanya Plonka

The MAPS & MoSI Programs

IBP's two cooperative bird banding and monitoring networks, Monitoring Avian Productivity and Survivorship (MAPS) and Monitoring Overwinter Survival (MoSI), usually work independently. MAPS measures the productivity and survivorship of landbirds on their North American breeding grounds; MoSI works with cooperators in the tropics to study many of these same species on their wintering grounds. But synergy is growing between these programs, as both are increasingly used to study the full annual cycle of landbirds. This is nothing new to the birds themselves, of course, which use habitats across the hemisphere to complete their annual cycles.

The MAPS and MoSI programs are thriving due to the dedication of many hundreds of station operators and supporters. On the following pages we highlight some of the ways in which we are all working together to help land managers make the best possible decisions for bird conservation.



Canada Warbler
Photo: Budgora

What's Driving the Decline of the Canada Warbler?

Canada Warbler is experiencing rapid and steep declines – about 2% per year – meaning that about 2/3 of the overall population has been lost since the mid-1960s (the species is listed as Threatened in Canada). Canada Warblers mostly inhabit shady forest undergrowth in the northern U.S. and Canada during the breeding season, and spend the majority of the non-breeding season in forests in the Andes of Colombia, Ecuador, and Peru. Forest habitat has been degraded or fragmented in both nesting and wintering areas over the past several decades.

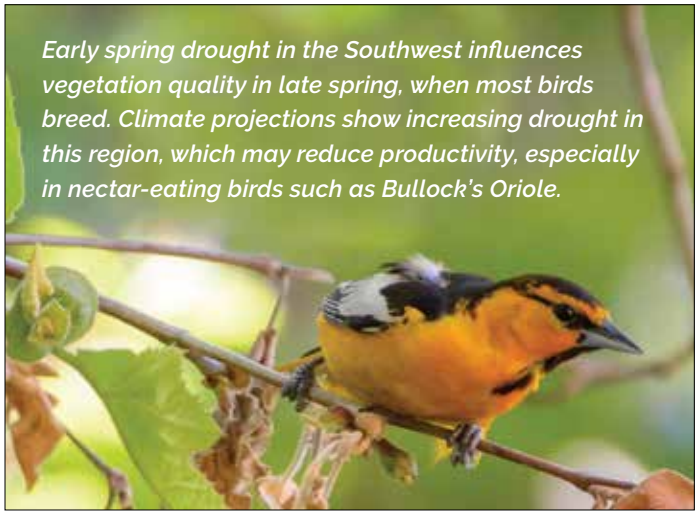
To understand how to help Canada Warblers, IBP scientists recently partnered with Environment Canada and other agencies to analyze 23 years of Canada Warbler mark-recapture data from the MAPS program.

Habitat disturbance on the breeding grounds seems to be a factor in the species' decline in some regions, but we also found that limitations during the non-breeding period, when the birds are mostly in South America, was likely the biggest driver of overall declines, particularly for eastern breeding populations. These findings highlight the need to work with our partners in Latin America to conserve these birds through all phases of their annual cycle.

How Are Climate Change, Drought, and Fire Affecting Birds in the Southwest?

Most climate change models predict hotter, drier summers for much of western North America – changes that are already underway and have the potential to greatly affect bird populations through habitat alteration, resulting in part from more frequent and severe wildfires.

Recently, scientists at IBP, along with several collaborators, looked at the responses of birds and their habitats to drought and fire in the Four Corners region of the southwestern U.S. The study included data from 14 MAPS stations and spanned 18 years that included a range of drought conditions and a moderate severity wildfire that affected three of the sites.



Early spring drought in the Southwest influences vegetation quality in late spring, when most birds breed. Climate projections show increasing drought in this region, which may reduce productivity, especially in nectar-eating birds such as Bullock's Oriole.

Productivity and survival were all lower at sites experiencing more severe drought. Productivity also declined significantly immediately after the fire but, interestingly, was higher than normal for several years afterward, eventually returning to pre-fire levels. Many species appeared largely resilient to the short-term disturbance of the fire, but long-term projections predict more severe drought conditions in the coming decades, which could lead to declines in breeding bird populations through depressed productivity and survival.

Where Do Birds Molt?

Effective conservation of migratory birds depends on the protection of habitats used during each life phase, and new IBP research has shed light on a key but often overlooked component of the annual cycle: where birds go to molt after they breed (see figures on page 6).

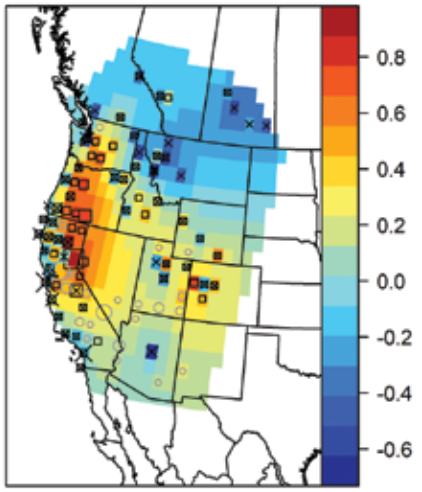
Molt is an energetically taxing process during which birds shed worn or broken feathers and grow new ones. During this time, flight ability is reduced, so birds become more reclusive and harder to detect – one reason, perhaps, that this life cycle phase has been poorly studied. For most species, little is known about where post-breeding molt occurs, the habitats that are used during molt, and the conservation status of these areas.

It has long been known that some species migrate to locations outside their nesting and wintering areas to molt, in order to take advantage of abundant food or other resources, but it had been assumed that most species molted near their breeding territories. This turns out not to be the case. IBP's work, based on MAPS data,

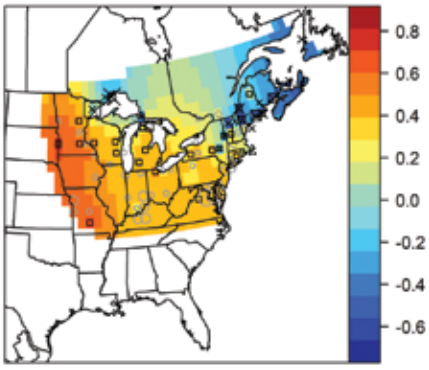
has demonstrated widespread but previously undocumented evidence that, across North America, birds shift locations in nearly every compass direction to molt. In some cases, molting areas were hundreds of kilometers from breeding areas.

It appears that an entirely new understanding of molt movements might be emerging; rather than characterizing molt as a discrete breeding or wintering ground activity, we should think of it as a continuum, with most species, populations, or individuals showing some level of movement away from breeding territories to molt. But more study is needed to determine if such areas are receiving the conservation protection they merit.

Orange-Crowned Warbler



Swainson's Thrush



Two examples of molt migration movements by North American birds. Bluer areas represent higher probability of a bird breeding relative to molting; redder areas represent higher probability of molting relative to breeding. Orange-crowned Warblers breeding in the West moved south and higher in elevation, largely into the Sierra Nevada mountains, likely to take advantage of cooler and moister habitats. Swainson's Thrushes in the East shifted west and south, largely into the Mississippi Valley.

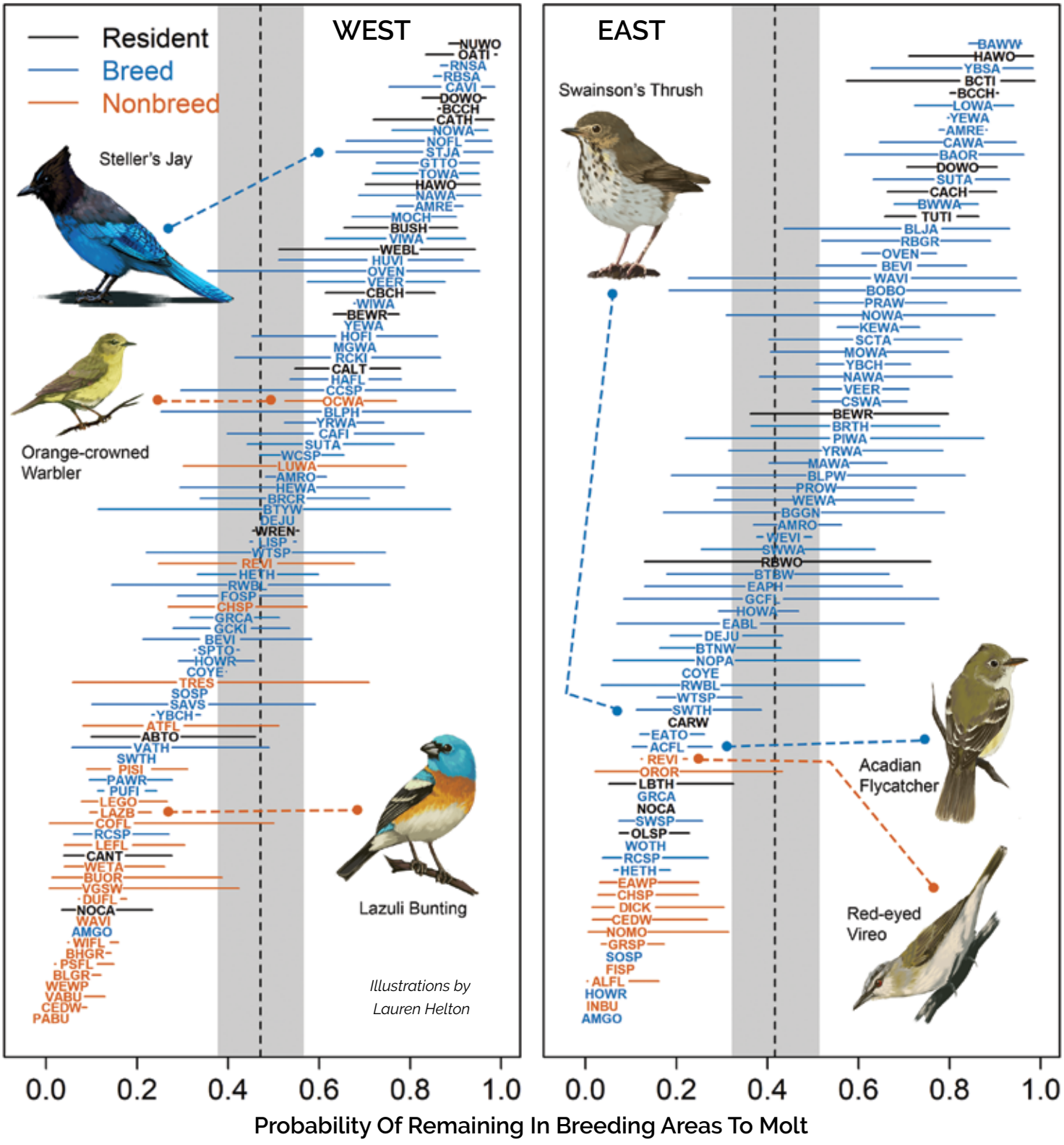
MoSI Program Expansion Continues

The MoSI program continued its recent growth in 2018, with new stations beginning to monitor bird populations in Cuba, Mexico, Nicaragua, Honduras, and Ecuador. Many of these stations received free equipment courtesy of IBP's MoSI micro-grants program, an initiative supported by the March Conservation Fund to provide stations with start-up or replacement banding supplies.

In 2018, IBP also continued to sponsor the International Fellowship in Bird Survey Techniques. Administered with our colleagues at the Southern Sierra Research Station and funded by another grant from the March Conservation Fund, the fellowship hosts an early- to mid-career biologist from Latin American or the Caribbean in the U.S. during the summer bird banding season. This year's fellowship recipient was Stefanny Villagomez from Nayarit, Mexico. Over the course of the summer, she studied with IBP's MAPS crews in Yosemite National Park and along the Bureau of Land Management-administered Merced Wild and Scenic River, where she improved her banding skills and got to study familiar migratory birds on their breeding grounds.

Mexican biologist, Stefanny Villagomez, banding birds in Yosemite.

Training is another way in which IBP supports our MoSI cooperators. Over the past year-and-a-half, we coordinated or assisted bird monitoring and training workshops in Nicaragua, Mexico, and Ecuador. We believe the increasing numbers of qualified Latin American bird banders will translate into continued growth in the MoSI program, and increased collaboration for protecting our shared resource of migratory birds.



IBP's groundbreaking molt migration study (described on pages 5-6) looked at the movements of 140 species in western (left panel) and eastern (right panel) North America and determined that many more landbirds than previously thought undertake post-breeding molt migration. This figure, from the original published article, shows the probability that breeding birds captured at MAPS stations are later captured in molt. Species are indicated with the four-letter codes that birders and ornithologists use as shorthand (Steller's Jay is STJA, etc; see the full list at birdpop.org/pages/birdSpeciesCodes.php). Birds lower and further to the left in each panel exhibit a higher probability of molt migration. For example, in the west, Painted Buntings (PABU, lower left) nearly always leave their breeding areas to molt, whereas Nuttall's Woodpeckers (NUWO, upper right), rarely do. Species indicated in orange were already known to undergo molt migration. Species indicated in black are residents that typically remain on their home range year-round. We found that many birds previously thought to molt on their breeding grounds (shown in blue) often move away from breeding territories to molt.

IBP's Sierra Nevada Bird Observatory

Many of IBP's projects focus on studying and conserving populations of birds and other wildlife in California's Sierra Nevada. Our efforts vary widely in scale – from providing land managers with advice for individual meadow restoration projects to monitoring Black-backed Woodpeckers across ten National Forests – and always strive to link scientific findings with prescriptions for effective conservation.

Photo: RCole3

Willow Flycatcher Conservation

The Willow Flycatcher is a small migratory songbird that nests in riparian and wetland areas. Though it is relatively widespread throughout North America in the summer, western populations are in trouble; the subspecies that breeds in the desert Southwest is federally Endangered, and populations in California, where the Willow Flycatcher has been designated as a State Endangered Species, have been declining for decades. In California the species is now restricted to about 100 montane meadows in the Sierra Nevada and southernmost Cascades, and some additional riparian areas in the southwestern part of the state.

Spurring Recolonization of Restored Habitat

One challenge to reversing declines of Willow Flycatcher populations is attracting the birds to newly restored habitat. Despite improved conditions, many newly restored areas remain unoccupied, possibly because Willow Flycatchers, like many birds looking for new territories, assess habitat suitability based on the presence of other members of their species. IBP scientists and colleagues recently experimented with facilitating Willow Flycatcher recolonization of restored meadows by broadcasting recordings of their calls in spring – when adult birds are establishing territories. The technique succeeded and we described it in a paper in the journal *Avian Conservation and Ecology,* so that other land managers can try it, too.

How Will Climate Change Affect Willow Flycatchers?

Willow Flycatcher declines in the West are in part related to limited water availability and drought – factors that are expected to intensify under most climate projections. Recently, IBP scientists joined colleagues using genomic analysis to assess the potential for this species to adapt to climate change under a variety of projections for future climatic conditions.

We found that small, fragmented populations of the Endangered Southwest subspecies will have to adapt most to keep pace with climate change. Incorporating genotype–environment relationships into models of climate vulnerability can help predict climate impacts, and guide conservation efforts for Willow Flycatcher and other species that are in jeopardy.

What's Next for IBP's Work with Willow Flycatchers?

IBP is initiating several projects to test other approaches for conserving Willow Flycatchers. One project is using remotely sensed data to identify highly suitable breeding habitat in the Sierra Nevada, where conservation efforts for the species could be targeted. Another project is examining the relationship between beavers, Willow Flycatchers, and meadow habitat. The dams that beavers create, as well as artificial structures that mimic beaver dams, may be among the best tools for restoring Willow Flycatcher habitat in Sierra Nevada meadows.

Right: Willow Flycatcher Photo: Kelly Colgan Azar

Managing Burned Forests For Woodpeckers And Other Wildlife

Wildfire creates both challenges and opportunities for wildlife by rapidly consuming, modifying, and creating new habitats. Much of IBP's work in the Sierra Nevada focuses on understanding how wildfire affects birds, and how burned forests can be managed to support robust populations of birds and other wildlife.

After a decade studying Black-backed Woodpeckers in burned forests, we are still making new discoveries! During 2018 we published papers on aspects of Black-backed Woodpecker biology ranging from habitat selection to courtship behavior. In yet another paper, we show that juvenile woodpeckers rely on low-severity burned areas for cover, even as their parents forage in adjacent high-severity burned areas. This discovery may explain why some very large high-severity burned areas harbor fewer Black-backed Woodpeckers than expected.

Black-backed Woodpecker
Photo: Eric Ellingson

To better understand woodpecker population dynamics, we are also studying the habitat relationships of important prey species, particularly woodboring beetles. One intriguing preliminary finding is that the ignition date of a fire appears to play an important role in how intensively burned forests are colonized by woodboring beetles – fires that start in the middle of the historic fire season appear to be most heavily colonized, whereas fires that start substantially earlier or later tend to have less insect prey for woodpeckers in subsequent years. Even as fire prevalence increases with climate change in the Sierra Nevada, woodpecker prey therefore may not become more abundant if fires increasingly occur outside the historical fire season.

Conserving Forest Owls

In 2018, we used cutting-edge GPS tracking technology to study the movements of California Spotted Owls in the northern Sierra Nevada with unprecedented detail and resolution. New methods allow animals to be tracked even to places where humans on foot have difficulty following them, yielding data that can test the efficacy of existing forest management strategies, or spur development of more refined and ecologically relevant approaches.

Our first paper stemming from this work, published in the journal *Forest Ecology and Management*, reveals previously undocumented long-distance foraying behavior by non-breeding females during the breeding season. We also found that owls spent the majority of both their foraging and roosting time in the larger forest matrix outside the protected forest reserves established by the Forest Service to protect nesting and roosting habitat. These findings may call into question the adequacy of the current reserve network.

Response of Owls to Changing Habitats

Elsewhere in the Sierra Nevada, we are assessing how forest habitat available to Spotted Owls in Yosemite National Park has changed in recent decades, and whether habitat selection by the owls has shifted in response.

We are also examining the effects of the 2013 Rim Fire, the largest fire on record in the Sierra Nevada, on Great Gray Owls – which are endangered in California. Understanding whether or how wildfire threatens the species has important implications for wildfire management, and for prioritizing conservation actions to benefit the owls.

Great Gray Owl
Photo: Dennis Jacobsen

Science Into Action: IBP's Conservation Strategies

A major challenge facing conservation biologists is how to ensure that our research actually makes a difference for the species or ecosystems we study. Incorporating new ecological knowledge into management or conservation actions is not always straightforward, and land managers and policy makers seldom have time to wade deep into the ecological literature. If our results are only ever seen by other scientists who read scientific journals, they will be unlikely to affect land management or spur other kinds of conservation efforts.

One effective way to interpret science for land managers and policy-makers is to develop 'conservation strategies' – comprehensive yet succinct documents that summarize the relevant science and provide explicit options for effective conservation actions. These strategies often function best when they offer flexibility to land managers who may have many competing priorities.

In 2018, IBP developed and published – or updated – conservation strategies for three priority bird species in California: Black-backed Woodpecker, Great Gray Owl, and most recently (and still under peer review at this writing), Willow Flycatcher. Many of the conservation recommendations in these strategies are based explicitly on IBP's science. We developed the strategies in partnership with the US Forest Service and California Department of Fish and Wildlife, whose insight and collaboration were key in yielding recommendations they will be willing to implement.

Top: Black-backed Woodpecker. Left: Great Gray Owl. Right: Willow Flycatcher.
Illustrations: Lynn Schofield

2019 Sneak Preview: Ecology and Conservation of Bats in the Sierra Nevada

Big Brown Bat, one of 17 bat species we are studying on Plumas National Forest in northern California, appears particularly well adapted for foraging along the boundaries between burned and unburned forests.

Illustration: Lauren Helton

Which habitats are most important for bats in the Sierra Nevada? How does forest fire affect habitat use by bats? As climate change increasingly alters fire size, severity, and frequency, how will bats be affected? IBP is working with Plumas National Forest and the University of Missouri to answer these and other questions about bats in the northern Sierra Nevada.

Many bat species in western North America and throughout the world are declining. Even though bird conservation is the core of IBP's mission, sometimes the same skills and expertise that make us successful in our work on birds can be put to use for other animals, particularly when, like bats, they rely on many of the same resources (e.g., flying insects for food, or dead trees for nesting) as some of the birds we study.

The Pacific Islands Program

Studying a Little-known Endangered Species in American Samoa

The American Samoan subspecies of Tongan Ground Dove (also known as Shy or Friendly Ground Dove) has a range that is restricted to two small adjoining islands, Ofu and Olosega. The species was listed as federally Endangered in 2016, and more information is needed to conserve this relatively unknown and isolated population.

IBP is working with the Department of Marine and Wildlife Resources in American Samoa to determine the dove's population status, habitat requirements, and conservation needs. This year we tested several different tracking methodologies to determine which is most effective at monitoring the movements of these birds in their rugged, heavily forested terrain. Learning more about the ecology of this little-known population will enable us to develop strategies to conserve it.

Left: Tongan Ground Dove
Photo: Adrienne Doyle

Biological Technician Jaime McConachie tracking Tongan Ground Doves using radio telemetry on the island of Ofu, American Samoa.

What Can We Learn From Studying Plumage?

IBP's groundbreaking study of molt migration in 2018 (see pages 5-7 of this issue) was restricted to landbirds, but we also published results in *The Auk* indicating molt migration in some species of seabirds. Studying photographs of four species of skuas and jaegers – large, migratory seabirds – revealed that they exhibit overlap in their molt and postbreeding migration. Molting and migrating at the same time is generally rare in birds, but may be feasible for some large seabirds with relatively low migration speed.

During the past year, IBP also published another innovative study in *The Auk* on an additional species that undergoes molt migration: Rufous Hummingbird. Mentoring a promising teenage ornithologist, Dessi Sieburth, we found evidence for a previously unrecorded, inserted molt that occurs, in part, at stopover locations during southbound migration in California and northwestern Mexico - an area that is increasingly recognized for its importance to molting birds during migration.

Rufous Hummingbird
Photo: Audubon.org

Throughout the 'North American Monsoon' region, late summer rains make the arid landscape bloom with flowers, fruits, seeds, and insects that birds rely on for energy to continue their southward migration and, in the case of Rufous Hummingbird and many other landbirds, to replace their feathers.

A View from the Field

Alma Schrage, IBP Seasonal Biologist

"Just finished the second plot, had a lot of bees there," I radio. I check my net – three bees are left, expanding and contracting their abdomens very slightly, like breathing, to generate heat and friction to help them warm up faster. I rustle the net gently; all three lift off into the air in alarm – a little drunkenly at first – and buzz away into the sea of whitethorn in full blossom. I pull my backpack on, pick up the net, and like some slow and ponderous beast, slowly push my way through the dense thicket of thorns that goes up to my shoulders and covers the entire slope.

Four bee survey seasons later, I still marvel at how random events can decide a career. I was initially drawn into working for IBP's Moonlight Fire bee and bird project - a summer of mist netting birds, assisting with avian point counts, and surveying bees, because it provided bird experience. The bees were almost an afterthought.

Returning to IBP each summer to survey bees helped me to hone my entomological and botanical skills, and then doing that in a crew lead capacity for two summers helped me gain a better sense of people and what it entails to carry out a field project from beginning to end. And that helped me realize that these were the questions I wanted to keep chasing as a researcher; the why and the how of pollinators, their ecology and their conservation.

Peer-Reviewed Publications

As part of our effort to disseminate our scientific findings widely, IBP scientists frequently publish results in peer-reviewed scientific journals. In 2017-18, our staff authored or co-authored the publications listed below. A searchable database listing these and more than 650 other publications and technical reports by current and former IBP staff and partners is available at birdpop.org.

Ahrestani, F.S., J.F. Saracco, J.R. Sauer, K.L. Pardieck, and J.A. Royle. 2017. An integrated population model for bird monitoring in North America. *Ecological Applications* 27:916-924.

Albert, S., D. DeSante, and J. Saracco. *In Press.* El monitoreo de aves migratorias Neotropicales en la temporada no reproductive: éxitos, desafios, y nuevas iniciativas en el programa MoSI [Monitoring Neotropical migratory landbirds in winter: successes, challenges, and new initiatives in the MoSI program]. *Zeledonia*.

Albert, S., K. Ruegg, and R.B. Siegel. 2018. El uso de marcadores intrínsicos y extrínsicos para enlazar poblaciones de aves a través de las Americas [Use of intrinsic and extrinsic markers to link bird populations across the Americas]. *Zeledonia* 22:8-20.

Blakey, R.V., R.T. Kingsford, B.S. Law, and J. Stoklosa. 2017. Floodplain habitat is disproportionately important for bats in a large river basin. *Biological Conservation* 215:1-10.

Blakey, R.V., B.S. Law, R.T. Kingsford, and J. Stoklosa. 2017. Terrestrial laser scanning reveals below-canopy bat trait relationships with forest structure. *Remote Sensing of Environment* 198:40-51.

Blakey, R.V., R.B. Siegel, E.B. Webb, C.P. Dillingham, R.L. Bauer, M.J. Johnson, and D.C. Kesler. *In Press.* Space use, forays, and habitat selection in California Spotted Owls (*Strix occidentalis occidentalis*): new insights from high resolution GPS tracking. *Forest Ecology and Management*.

Blakey, R.V., E.B. Webb, D.C. Kesler, R.B. Siegel, D. Corcoran Barrios, and J. M. Johnson. *In Review*. Bats in a changing landscape: linking occupancy and traits of a diverse montane bat community to fire regime.

Carnes, B.H. 2017. Age determination of Swainson's Thrush using the distal marginal coverts. *North American Bird Bander* 42:104-107.

Cole, J.S., N.L. Michel, R.B. Siegel, N. Somilleda Jr. *In Review.* An application of community modeling to estimate the effects of off-highway vehicles on oak-chaparral birds.

Cole, J.S., R.B. Siegel, H.L. Loffland, M.W. Tingley, E.A. Elsey, M. Johnson. *In Review*. Explaining the birds and the bees: Combining community models to determine habitat restoration targets for multiple taxa.

DeSante, D.F., J F. Saracco, and D.R. Kaschube. 2018. Population changes and their demographic drivers in landbirds of western North America: An assessment from the Monitoring Avian Productivity and Survivorship program, in: Trends and traditions: avifaunal change in western North America (W.D. Shuford, R.E. Gill Jr., and C.M. Handel, editors. Studies of Western Birds 3. Western Field Ornithologists, Camarillo, CA.

Gabriele, C.M., J.L. Neilson, J.M. Straley, C.S. Baker, J.A. Cedarleaf, and J.F. Saracco. 2017. Natural history, population dynamics, and habitat use of humpback whales over 30 years on an Alaska feeding ground. *Ecosphere* 8:e01641.

Izaguirre, F., and P. Pyle. 2018. Electric blue in the bayou: the mystery of the Beaumont Cattle Egret. *Birding* 50(3):60-62.

Kornegay, M.E., A.N.M. Wiewel, J.A. Collazo, J.F. Saracco, and S.J. Dinsmore. 2018. Improving our understanding of demographic monitoring: avian breeding productivity in a tropical dry forest. *Journal of Field Ornithology* 89:258-275.

Lai, P., P. Pyle, K.R. Foster, and C.M. Godwin. 2017. Identifying sparrows in juvenile plumage. *Birding* 49 (6):62-76.

Loffland, H.L., J.S. Polasik, M.W. Tingley, E.A. Elsey, C. Loffland, G. Lebuhn, and R.B. Siegel. 2017. Bumble bee use of post-fire chaparral in the central Sierra Nevada. *The Journal of Wildlife Management* 81:1084–1097.

Musher, L.J., P. Pyle, D.S. Irons, and J.R. Tietz. 2017. Identification of male *Euphagus* blackbirds in fresh fall plumage. *Western Birds* 48:205-2010.

Pyle, P. 2017. Adding "Hawaii-only" species to the ABA Checklist. *Birders Guide* 29(2):28-34.

Pyle, P. 2018. Book Review: E.I. Johnson and J.D. Wolfe. Molt in Neotropical Birds: Life History and Aging Criteria. A Publication of the American Ornithological Society, Volume 51. CRC Press, Boca Raton, FL. *Journal of Field Ornithology* 89:105-107.

Pyle, P., K.R. Foster, C.M. Godwin, D.R. Kaschube, and J.F. Saracco. *In Review*. Correlating landbird yearling proportions with habitat quality and reclamation maturity using a multi-species approach.

Pyle, P., M. Gustafson, T. Johnson, A.W. Kratter, A. Lang, M.W. Lockwood, R. Pittaway, and D. Sibley. 2017. 28th report of the ABA Checklist Committee. 2017. Birding 49(6):28-39.

Swainson's Thrush
Photo: Andrew Reding

Nashville Warbler
Photo: Tim Sackton

Pyle, P., K. Kayano, K. Tranquillo, K. Murphy, B. Wilcox, and N. Arcilla. 2017. Manual for ageing and sexing landbirds of American Samoa, with notes on molt and breeding seasonality. The Institute for Bird Populations, Point Reyes Station, CA.

Pyle, P., and M. McPherson. 2017. Why so many white Eared Grebes?: Possible interactions among leucism, molt, and pollutants. *Birding* 49(10):58-65.

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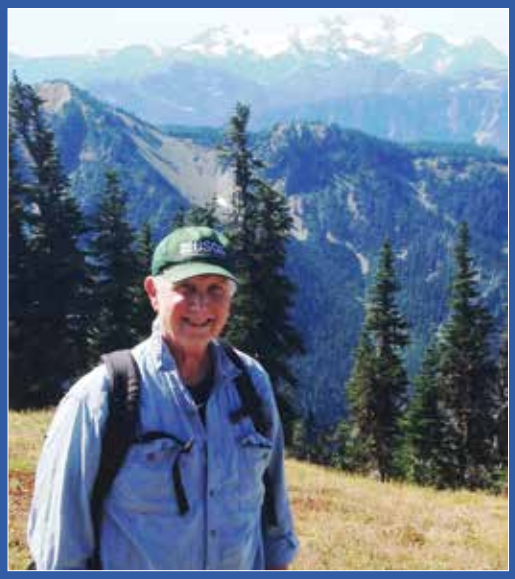
Partner Perspective



Kurt Jenkins
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"I owe a debt of gratitude to a former colleague for first introducing me to the passionate birders, fine scientists, and great work being done at IBP. In 2002, at a meeting to develop consensus for a comprehensive program to monitor bird population trends in five national parks, IBP scientists provided thoughtful contributions, ready expertise, and a special congeniality that convinced me we should hitch our carts. For 16 years IBP, The National Park Service, and the U.S. Geological Survey have partnered in designing, implementing, analyzing, and publishing studies on bird trends in Pacific Northwest parks. I can't envision a more successful or productive monitoring program. Our protocols have also been adopted in Sierra Nevada parks, providing a unique opportunity to infer status of mountain birds at a scale we didn't initially envision. Our work has advanced understanding of the links between bird population trends and climate in protected areas in the Pacific Northwest. I can't say enough about the spirit of collaboration, enthusiasm, and quality and integrity of scientific exploration and analysis that IBP brings to the table. It's been a very productive journey and, importantly, a great pleasure every step of the way!"

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