

The Klamath Bird

Newsletter of the Klamath Bird Observatory, Summer 2017



Informing Science-based Evaluation and Expansion of Protected Areas

By John Alexander, KBO Executive Director and Melissa Pitkin, Point Blue Conservation Science Outreach and Education Group Director

A new study has demonstrated an improved approach to ensure protected areas enhance and conserve biodiversity. The results of the study were used to inform expansion of the Cascade-Siskiyou National Monument. A team of researchers from the Klamath Bird Observatory, Point Blue Conservation Science, and other partner organizations used big data and fine-scaled modeling to (1) evaluate an existing network of protected areas in the Klamath-Siskiyou Bioregion or southern Oregon and northern California, and (2) to identify and prioritize new areas for protection. The study used birds as indicators of important habitats and biodiversity.



White-breasted Nuthatch
11/25/10, Shady Cove Ore.
Photo: Dennis J. Vetter

The White-breasted Nuthatch is one of many species likely to benefit from an expansion of protected oak woodlands in the Cascade-Siskiyou National Monument. Photo by Jim Livaudais

The researchers found that the region's protected areas, including seven National Parks and Monuments, were protecting coniferous forest habitat, however adequate amounts of grassland and oak woodland habitats were not being protected. Birds that are associated with these under-protected habitats have been identified as at-risk at both

In this issue ... a close look at the Cascade-Siskiyou National Monument—the natural wonder in our backyard and the science behind its creation and growth; also—the imperiled Oregon Vesper Sparrow, Words on the Wind, and more.

Earlier Study Showed Grazing Impacts on Birds—How Are They Doing Now?

By Jaime Stephens, KBO Science Director

When the Cascade-Siskiyou National Monument was established in 2000, the Bureau of Land Management (BLM) was charged with protecting the area's 'biological objects of interest.' In partnership with World Wildlife Fund and the BLM, KBO designed a series of scientific studies to assess how current and future management decisions would affect the achievement of that goal. A key management decision was whether to continue the grazing lease program, which allows ranchers to pay a fee to graze their cattle on public lands.

KBO completed a study to examine the degree to which bird community composition was associated with livestock grazing utilization in the Cascade-Siskiyou National Monument. Our results found that grazing influences bird community composition in both riparian and upland areas of oak woodland forests. Further, the results suggested that reducing



Oak woodland in the Cascade-Siskiyou National Monument. Photo by Frank Lospalluto

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President's Perch

By Shannon Rio, KBO Board President

In addition to serving as KBO Board President, Shannon volunteers for the Badger Run Wildlife Rehab in Klamath Falls. This is a recent wildlife rescue tale she wanted to share.

I received the call that the four Rock Wren babies needed to be transported to Badger Run Wildlife Rehab in Klamath Falls where they could receive the care they needed. It was urgent to get them there quickly. Their parents had both been killed by automobiles on the highway near Emigrant Lake and these nestlings needed frequent feedings and constant care. I asked my 4-year old granddaughter Piper, who usually gets bored and carsick when driving the winding mountain road, if she would help me get them safely to Liz who manages the rehab center. The nestlings, maybe 7-10 days old, were fed and placed in a warm dark small box and we knew we had to speak quietly and decrease stress to them through warmth and a quick drive to their next feeding. Piper sang softly to them in bird speak and they peeped from their box. We were relieved that they were still alive when we passed them off to Liz at Badger Run.

During these tenuous times of challenge to conservation, every day brings the chance to write one more note, write one more check, make one more phone call, and on a very real level, save one more bird. I am reminded by the resilience of these baby wrens and the spirit of my granddaughter to keep each day a steady practice of giving

to science, to KBO, and to each bird and to each wild place in nature. Join me in the day to day practice of giving whatever you can.



Rock Wren nestlings. Photo by Badger Run Wildlife Rehab

P.S. After a week under the care of Liz and the Badger Run folks, the babies were doing well and were released a few weeks later. Oh, and Rock Wrens are my new favorite bird!

Continued from page 1—Science & Protected Areas

national and regional scales and protection and restoration of grasslands and oak woodlands has become a bird conservation priority.

Results from the study identified some protected areas where grassland and oak woodland birds do occur, as well as additional areas that, if protected, would increase the amount of priority birds protected by the region's Parks and Monuments. Specifically, these priority habitats occur within the Cascade-Siskiyou National Monument and on adjacent multiple-use lands. The results informed science-driven recommendations to expand the Cascade-Siskiyou National Monument. With support from Oregon's US Senators Wyden and Merkley, President Obama signed an executive order on January 12, 2017 increasing the size of Cascade-Siskiyou National Monument by more than 45,000 acres resulting in more protection for grassland and oak woodland birds.

"This study offers robust scientific evidence that expanding the Cascade-Siskiyou National Monument provides critical protection to an amazing ecosystem found nowhere else in

the world, and will serve Oregonians well for decades to come" said Senator Jeff Merkley.

This study and its application offer an improved science-based approach to evaluating protected areas and identifying and prioritizing new areas for protection. The results were recently published by the Ecological Society of America in a special feature of the journal *Ecosphere*, *Science for Our National Parks' Second Century*. The feature highlighted the crucial value of long-term monitoring and scientific inquiry and the role of science in informing natural resource management and conservation on public lands. This research was completed with support from the National Park Service, Bureau of Land Management, and US Forest Service and contributes to the Partners in Flight bird conservation initiative. A gigantic amount of data used for this research was made available through the Avian Knowledge Network. The paper can be accessed online at <http://onlinelibrary.wiley.com/doi/10.1002/ecs2.1799/full>.

Oregon Vesper Sparrow—an Imperiled Grassland Bird in and around the Cascade-Siskiyou National Monument

By Jaime Stephens, KBO Science Director

The Oregon subspecies of Vesper Sparrow was historically common in grassland habitats from southwestern British Columbia, through western Washington and Oregon, and into northwestern California. Its breeding range is currently limited to western Washington and Oregon. Within the Klamath-Siskiyou Bioregion it is found primarily in and around the Cascade-Siskiyou National Monument. The recent Monument boundary expansion provides further protection for this grassland bird. That protection is noteworthy because only a small percentage of its population, about 20%, is found on public lands even after the expansion.

The Oregon Vesper Sparrow has been petitioned for listing under the Endangered Species Act due to its declining population—estimated at less than 3,000 individuals—and increasing threats of further habitat loss and degradation. Over the last 45 years, the population has been declining 5% annually. But conservation action is limited because we don't know why the population is declining. Are females successfully producing offspring? Are individuals surviving migration? Are there threats on the California wintering grounds?

We are currently seeking funding to contribute to a study led by American Bird Conservancy that will answer

these questions throughout the range of the Oregon Vesper Sparrow. By understanding what aspect of the sparrows' life is limiting, that is, what is driving the decreasing numbers, we can prioritize conservation



This Oregon Vesper Sparrow was photographed in the Cascade-Siskiyou National Monument in 2016. It had been foraging in the grass after a summer rain. White outer tail feathers, a bit of rufous in the upper wing, and the eye ring are field marks that identify this medium-size sparrow. Photo by Jaime Stephens

Birds of the Cascade-Siskiyou National Monument Proclamations *by Robert Frey*

When President Clinton issued Presidential Proclamation 7318 in June 2000, establishing the Cascade-Siskiyou National Monument, he expounded the area's virtues as "...an ecological wonder ... a biological crossroads-the interface of the Cascade, Klamath, and Siskiyou ecoregions, in an area of unique geology, biology, climate, and topography." President Obama's Presidential Proclamation 9564 in January 2017 expanded upon those virtues and increased the Monument's boundaries. He brought to bear the area's value to our cultural and historical record, the geologic, botanical, and wildlife diversity with many species unique to the region, and habitat connectivity for wildlife migration and dispersal.

The birds highlighted as worthy of protection by Presidents Clinton and Obama in their proclamations include several determined by the 2016 Partners in Flight Landbird Conservation Plan as species of conservation concern. This new Plan (1) refines and updates the relative vulnerability assessment of 448 species of North American landbirds, (2) presents new scientific assessment and tools to integrate into range-wide and full life-cycle conservation implementation, and (3) delivers recommendations to advance high priority landbird conservation actions over the next 10 years.

The Plan's findings are alarming—most so for species of Continental Importance with a population half-life to extinction of less than 50 years. The half-life to extinction metric is an estimate of years to which 50% of populations' current numbers will be lost at the current rate of decline. Birds of the Monument include Mountain Quail with a half-life to extinction of 11 years, Olive-sided Flycatcher

Bird Bio: Oregon Vesper Sparrow

By Robert Frey, KBO Biologist

On a warm spring evening near a mountain meadow, listen for a sparrow of the evening, a melody maker in the night. With its musical slurry trills, the Vesper Sparrow is one of just a few songbirds that sing after sundown. It is a medium-size sparrow with white eye rings, overall plumage streaky brown above, more grayish with streaked breast and back below, a little rufous in the wing, and white in outer tail feathers. The tail feathers are flashed in flight making a field identification easier. This ground-foraging and ground-nesting bird is found in grasslands, agricultural lands, and shrub-steppe habitats of North America. It is a Temperate migrant—that is, it winters across the southern United States to south-central Mexico. There are four recognized subspecies with fairly distinct breeding and wintering regions. Here we biograph the Oregon subspecies *Pooecetes gramineus affinis* of the Pacific Northwest.

Its names tell part of its life story. Oregon—likely a local colloquialism that stuck. Vesper refers to Venus the evening star or the Greek mythological personification of the evening star Hesperus. For this bird, it is a nod to its habit of singing under the stars. Sparrow comes from the Old English *spearwa*. Its scientific name *Pooecetes gramineus affinis* is a little more descriptive. *Pooecetes* is Greek for “grass dweller,” from *poe* for grass and *oiketes* for inhabitant or dweller—for its preference for open grassland. The specific epithet *gramineus* is Latin for “grass-loving,” coined from *gramen* for grass and the suffix *-aceus* meaning “of” or “pertaining to”. The subspecific epithet *affinis* is Latin for “allied, similar, or related to”, perhaps an allusion to its similarity to the species type specimen.

The Oregon Vesper Sparrow is considered of high conservation concern throughout its range. It is classified as a federal Bird of Conservation Concern, a Strategy Species for conservation in both the Oregon and Washington State Wildlife Action Plans, and Oregon Department of Fish and Wildlife has designated it as Sensitive-Critical, a subcategory which indicates “imperiled with extinction”. It has likely been extirpated as a breeding species in British Columbia. A recent breeding range-wide inventory found a declining population that is smaller than previously documented, with the entire population likely less than 3,000 birds. A petition to list this bird under the U.S. Endangered Species Act was recently submitted by American Bird Conservancy.

One factor driving the declines is habitat alteration and loss—much of the open space and meadows this bird needs have been converted to agricultural uses over the past century. But still, too little is understood about its migration and wintering habitat use. Increased attention to full life-cycle study and protection of known habitat used is warranted for this sparrow of the evening.

Words on the Wind

A celebration of birds in literature

Why Do Birds Sing?

By Robert William Service

Let poets piece prismatic words,
Give me the jewelled joy of birds!

What ecstasy moves them to sing?

Is it the lyric glee of Spring,
The dewy rapture of the rose?
Is it the worship born in those
Who are of Nature's self a part,
The adoration of the heart?

Is it the mating mood in them
That makes each crystal note a gem?

Oh mocking bird and nightingale,
Oh mavis, lark and robin - hail!
Tell me what perfect passion glows
In your inspired arpeggios?

A thrush is thrilling as I write
Its obligato of delight;
And in its fervour, as in mine,
I fathom tenderness divine,
And pity those of earthy ear
Who cannot hear . . . who cannot hear.

Let poets pattern pretty words:
For lovely largesse - bless you, Birds!

Editor's note: What a wonderful thing for Robert Service to take us to the midst of a dawn chorus and "... fathom tenderness devine."



Oregon Vesper Sparrow singing in a Cascade-Siskiyou National Monument meadow. Photo by Jim Livaudais

KBO and the Cascade-Siskiyou National Monument: A Case Study in Overcoming Social and Scientific Challenges to Public Lands Management

By John Alexander, KBO Executive Director

In 2000, Klamath Bird Observatory incorporated, emerging from nearly 10 years of coordinated inventory and monitoring efforts in the Klamath-Siskiyou Bioregion of southern Oregon and northern California. In that same year President Clinton issued Presidential Proclamation 7318 that established the Cascade-Siskiyou National Monument—at the heart of the Bioregion. The Proclamation recognized the Monument's 52,000 acres as “an ecological wonder” and “a biological crossroads ... of the Cascade, Klamath, and Siskiyou ecoregions, in an area of unique geology, biology, climate, and topography.”

The Proclamation called for management in the Monument that ensures continued ecological integrity for the area. It was this ecological integrity that our research—using birds as indicators—was designed to measure. In fact, we had at that point collected a lot of data in the area of the Monument documenting the biodiversity of birds.

Klamath Bird Observatory's non-advocacy, science-based model was new to the region in 2000 and we were well-positioned to facilitate what was escalating into a controversial issue. The Presidential Proclamation called for a livestock grazing impacts study, stating that “... should grazing be found incompatible with protecting the objects of biological interest, the Secretary [of Interior] shall retire the grazing allotments [within the Monument].” This resulted in a tense atmosphere among stakeholders including the ranchers who had grazed livestock in the area for decades, an environmental community focused on reducing the negative impacts of grazing, and the Bureau of Land Management (BLM), a government agency typically charged with multiple-use natural resource management and now tasked with coordinating a complicated scientific study and protecting an area for conservation purposes.

Soon after the proclamation was issued, Klamath Bird Observatory began working with all the stakeholders to design and implement a study that examined the effects of grazing in the Monument. We were faced with both social and scientific challenges that put our new non-advocacy, science-based model to the test. At first, the environmental community voiced concerns about KBO working with the BLM on the study, showing their distrust of the agency. Expressing similar skepticism, many of the ranchers were concerned that we were working with the non-government environmental community on aspects of the study. All parties were concerned that individual partners or funding sources would introduce bias into our results. In addition to these social issues, designing a grazing impacts study in the Monument represented a significant scientific challenge because the majority of

the area had been grazed for many decades, leaving essentially no un-grazed habitats to use as “controls” against which grazing effects could be compared.

We quickly realized that our non-advocacy, science-based approach could be used to turn these challenges into opportunities for success. The study design would require cooperation from all stakeholders; we would need to conduct extensive vegetation surveys to document a subtle gradient representing less grazed to more heavily grazed sites. We took on a leading role in this aspect of the study, viewing its design and implementation as essential to effectively measuring the effects of grazing on the Monument's objects of biological interest. We also viewed collaboration on the study design as a way to unify both the agency and NGO partners involved in the broader grazing effects study.

Within this context we helped to facilitate a process whereby a team of agency, academic, and NGO scientists collaborated on a transparent set of study designs that were presented for scientific review as well as review by a Resource Advisory Committee representing the diverse stakeholder interests. This committee agreed that the collaborative peer-reviewed and transparent study, and the peer-reviewed results, would produce an agreed upon body of science that would support the upcoming decisions on grazing that had been called for in the Presidential Proclamation. This elevated the science above the social controversy and distrust, in recognition of the integrity of the scientific process. The stage was set for a management decision to be informed by one of the most comprehensive grazing effects studies ever conducted in the western United States.

Many of the study results did indicate that maintaining the current grazing rate and conserving the ecological integrity required by the Monument's objects of biological interest would prove to be a challenge for the Bureau of Land Management. For example, our data suggested that reduced grazing would benefit long-distance migrant, foliage gleaning, and shrub-nesting birds in the Monument's oak woodland habitats, meeting established bird conservation objectives.

During the time that the Monument was being created, and the study was being designed and implemented, a separate negotiation involving the government and the environmental and grazing communities was underway. These groups were seeking legislation to facilitate third-party compensation for ranchers who would donate their grazing leases in the Monument, allowing their allotments to be permanently eliminated. This financial compensation offered an alternative to the Presidential Proclamation that stated, “... should grazing be

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Birds of the Proclamations—from Page 3

with a half-life of 26 years and Rufous Hummingbird just 25 years. Many other species of the Monument show steep long-term declines—including Black Swift (97%), Common Nighthawk (66%), Flammulated Owl (62%), and Lewis's Woodpecker (62%). The Oregon Vesper Sparrow, likely the most at-risk songbird of the Pacific Northwest, nests in the Monument's montane meadows.



Rufous Hummingbird, a bird of the Cascade-Siskiyou National Monument. Photo by Jim Livaudais

The practical judgement of preserving the Monument's natural and human history, unique combined beauty, and critical habitat for wildlife will prove obvious to future generations.

Grazing Study—from Page 1

grazing in oak woodlands would likely lead to increases in the relative abundance of long-distance migrants, foliage gleaners, and shrub-nesting species in this habitat. Informed by this and other studies, a voluntary lease donation program was initiated for grazing leases within and adjacent to the monument. Based in part on this information, the grazing lease program eliminated 93% of the authorized grazing within the monument in 2009.

We are now revisiting the earlier study to answer the question: has the removal of cattle grazing served to improve the protection of 'biological objects of interest'? Revisiting this management question following the removal of cattle grazing is an important component of adaptive management in the Monument and will also inform future BLM management decisions across the western United States.

Case Study—from Page 5

found incompatible with protecting the objects of biological interest, the Secretary shall retire the grazing allotments." However, it was not until the study results were published that a compensation price point could be agreed upon. The results made the retiring of the allotments more likely, given the Secretary's obligation to meet the directives of the Proclamation.

Our early involvement with the Cascade-Siskiyou National Monument grazing study served as an excellent test of our non-advocacy, science-based model, and proved to be a true success story for Klamath Bird Observatory, for science, and for science-based bird conservation. Our model served as a means for building bridges among adversaries who were eventually able to collaborate as part of a transparent and effective scientific process. Through our involvement we solidified many long-lasting partnerships with diverse collaborators including the Bureau of Land Management, Geos Institute (formally a local office of the World Wildlife Fund), Oregon State University, the US Geological Survey Cooperative Research Unit Program, and local landowners and ranchers. Additionally, many acres of habitat within the Monument are no longer grazed by livestock, a change in management that is benefitting the ecological integrity of the Monument and many of the resident and migratory birds that depend on its oak woodland habitats.

In 2016, the US Department of Interior and President Obama considered the expansion of the Monument's boundaries, which would eventually lead to Presidential Proclamation 9564 of January 2017. Klamath Bird Observatory again provided science-based information to help inform the decision process. Using a novel density distribution modelling approach, we found that bird species associated with oak woodland and grassland habitats were not well represented in the Bioregion's existing protected areas. These species would benefit from expanding the regional protected area network to include their associated at-risk habitats. In contrast, our results suggest coniferous forests birds are well represented in the Bioregion's protected areas. In 2017, we will begin revisiting the field studies that contributed to the Monument's establishment (see *Earlier Study—Page 1*). Our science in action—informing conservation efforts and measuring the effectiveness of land management decisions.



Klamath Bird Observatory's Mountain Bird Conservation Fundraiser

Save the Date, September 23rd!

Registration opens August 18

Featuring New York Times bestselling author Noah Strycker:

In September 2015, Oregonian, Noah Strycker entered the Guinness Book of World Records by seeing 6,042 bird species in one year. His Big Year bested a British couple by breaking their 2008 record by over 1500 species. The world followed Noah's record breaking year on the Audubon Society blog, and now his latest book, *Birding Without Borders*, chronicles the story of his quest to break the world birding record.

The main event will be held at the Historic Ashland Armory

- Noah Strycker's keynote presentation
- Hors d'oeuvres and no-host bar
- Art Gallery, featuring local artists

\$75

All attendees will receive a Conservation Stamp Set including:
*2017-18 Migratory Bird Hunting and Conservation [Duck] Stamp and
*Klamath Bird Observatory's 2017 Bird Conservation Science Stamp

Thank You Sponsors:

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Please consider sponsoring KBO's Mountain Bird Conservation Fundraiser
Call Jacob McNab at 541-201-0866



An International
Migratory
Bird Day
Event

Please join us for our 2017 conservation birding event:

- Celebrating a love for birds and birding
- Supporting science-driven conservation

Featuring:

Unveiling of Klamath Bird Observatory's 2017 Conservation Science Stamp
and
Science and conservation in the Cascade Siskiyou National Monument

Additional conservation birding events will include:

VIP Reception: Meet featured speaker, Noah Strycker
receive one personalized signed copy of Noah's New York Times Best Seller
"The Thing With Feathers"
\$100.00 donation per person

Exclusive Field Trips on Saturday and Sunday:

- A trip with featured speaker Noah Striker and KBO Executive Director John Alexander
- Great Gray Owl trip with Harry Fuller
- Presidential trip with current and former KBO Presidents Shannon Rio and Harry Fuller
\$100.00-\$200 donation per person

Klamath Bird Observatory

Conservation Donation



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