

Oregon Birds

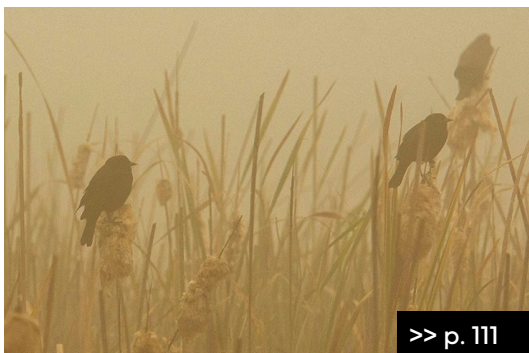
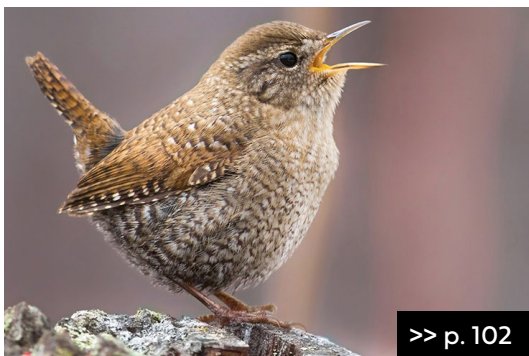
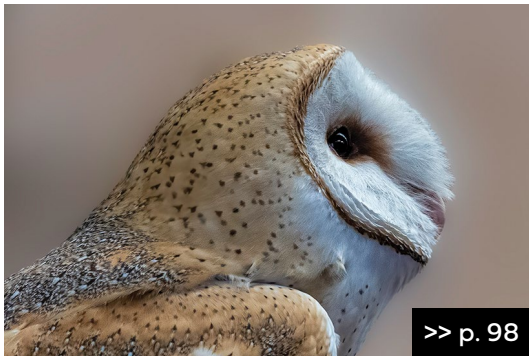
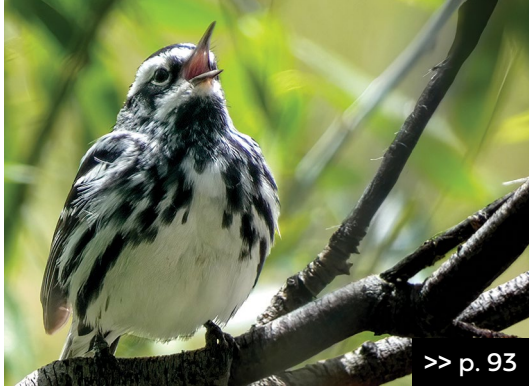
The Journal of Oregon Birding and Field Ornithology
Volume 47 Number 2 Fall 2021



Migrating Red Knots
Make Rare Stopovers
Along Oregon Coast

Oregon Birds

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Contents

NEWS AND EVENTS

- 86 Birding Inclusivity in Lane County
- 111 Wildfire Smoke Clouds Data Collection
- 112 OBA Store Updates Inventory and Online Sales

BIRDING

- 93 Oregon Big Day
- 100 Helping Others
- 104 Harney Big Day

SIGHTINGS

- 88 OBA Grant Updates
- 98 Monthly Photo Contest Winners
- 102 Winter Wren Confirmed in Oregon

STATUS AND DISTRIBUTION

- 90 Red Knot Migration Surprise
- 107 Importance of Rare Bird Information

On the Cover

Photograph by Roy W. Lowe

The Red Knot (*Calidris canutus*) is an iconic shorebird known for its long-distance migrations with few stopovers for food or rest. Last spring, the west coast migration included unusual stops in Oregon, providing once-in-a-lifetime viewing opportunities.

Birders Share Their Passion and Knowledge

For several months, I've enjoyed seeing the profound interest of bird-lovers around our state as Nagi Aboulenein, Oregon Birding Association's past president, and I produced this issue of Oregon Birds. As a result, I now have a greater appreciation of the knowledge and experience our contributors bring to our journal. Their passion for birding is evident on every page, and Oregon Birds would not be the same without their efforts.

This issue also demonstrates the breadth of member birding activities. Examples include the species lists gathered during two record-setting Big Day events, ways to help others by giving simple birding directions, or how research on the smoke from wildfires affects bird health. We should all be proud of our organization for how many ways we serve Oregonians. But as one author noted in her article, all bird fans are not alike.

Like many groups, the Oregon Birding Association recognizes the importance of being more accessible and inclusive to all. Sarah Swanson presents our new mission statement in her president's message, emphasizing the importance of words and actions while striving to be better. For example, we learn of OBA's efforts to open birding to others. The Fund for Ornithology supported three projects providing education about caring for the avian ecosystem.

We are excited to bring photographs from the monthly OBA photography contest to our pages. The competition is friendly and an opportunity to be inspired by outstanding images. You can find information about the contest in its usual space on the OBA website oregonbirding.org/oba-monthly-photo-contest/.

This issue is the first of the many I will enjoy editing for you. I'm a long-time visual journalist who loves to make information sharing valuable for all who read the publications I design and edit. And like Nagi, I'm also an avid bird photographer. So we each included a favorite shot (at right) for you to enjoy.

Would you mind letting us know if you have a birding story to tell, some research to publish, or a photo to share? Work will begin soon on our next issue, and your contributions will be needed. You can reach me at mwillia@oregonbirding.org.

When I'm not producing a magazine, you will find me waiting for the perfect shot in a Willamette Valley wildlife refuge. So, if you see someone wearing an OBA hat, please say "Hi!" It might be me.



Photograph by Mike Williams
A Peregrine Falcon dives from the top of Yaquina Head.



Mike Williams

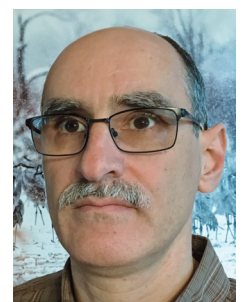
Mike Williams
Lead and Presentation Editor



Photograph by Nagi Aboulenein
A Sagebrush Sparrow photographed near Fort Rock.

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Nagi Aboulenein
Photography and Copy Editor



Birds Don't Discriminate – Neither Should We

Bringing Inclusivity to Birding In Lane County and Oregon

Article by Rebecca Waterman

Field Trip Coordinator, Lane County Audubon Society

One of the first experiences I ever had with real birders was a full-body look-over and the following comment: “You don't exactly look like you're part of our group, do you?” This statement may have been due to my age, brightly colored hair, piercings, and visible tattoos (of birds!).

Whatever caused the comment, I wanted to prove that I was, in fact, part of their group. I spent the next several years building a relationship with Lane County Audubon Society (LCAS) members, joining the board and eventually taking over the role of Field Trip Coordinator. We have monthly walks open to all participants.

As an openly queer woman, my intentions with my role as a bird walk leader have begun to change, and the vision of the group I want to see myself as a part of has changed as well. Birding is an activity stereotypically populated by older white folks and primarily men.

I am happy to be part of a board whose president is a woman, and about half—if not a few more—of the other board members are women. Though our monthly walks always have a good mix of folks, I have noticed that many participants still fit the bill of what we might consider a “typical birder.” My circle of friends is full of queer birders, so why don't I see that representation, and more, out in the field?

After seeing the work done by organizations such as Portland Audubon and Birdability, I knew I wanted to bring some of that energy to Eugene. So, starting in April of 2021, we added a monthly walk, with participation reserved for BIPOC (Black, Indigenous, and People of Color), women, and members of the LGBTQIA+ (lesbian, gay, bisexual, trans, queer, intersex, and asexual) community.

Each walk so far brought new birders, folks I have never met in my five-plus years of leading walks in Lane County. Almost all of them said they wanted to come specifically because the walks are for underrepresented and underserved birders. Seeing an uptick in participation from the crowd I'd hoped to attract lets me know I am on the right track.

Though it has been lovely to help provide a space where more people feel comfortable birding, I know my work is truly just beginning. I feel like I have the queer birding scene on lock, but

that is just one kind of diversity to be addressed. According to the U.S Census, Eugene is not a racially diverse town; 83.3% of the population here is white. I have so much to learn about true inclusion, safety, and accessibility.

For instance, as an able-bodied person, I have not always thought about the terrain we will be covering or how easily folks with visible or invisible disabilities will comfortably participate. This question of accessibility sparked my interest in facilitating a monthly “bird sit” in addition to the two monthly walks. Participants will benefit from sitting in place and taking in nature as it passes by. So often, birding is about moving quickly to observe as many species as possible.

There is absolutely no wrong way to bird, so I work to ensure all avenues, including affordability, are available to interested folks. Though LCAS keeps participation costs relatively low at a suggested \$3 donation, other expenses are considered, such as transportation and optics. We have temporarily suspended carpooling due to the ongoing pandemic, so I consider birders' proximity to bus lines when planning excursions. We also recently upgraded our loaner binoculars and purchased a scope for use on walks.

With technology ever-evolving, the identification of species is easier than ever. Acknowledging the validity of such learning tools is an integral step towards true inclusion. People learn in many ways, and the idea that there is one correct way of learning to bird is incredibly detrimental to our cause.

As is the case in so many other aspects of life, there is strength in numbers. We must embrace the changing dynamics of birding and welcome birders of all skill levels and backgrounds. To do so requires intention. I encourage all of you to participate in creating the change we need. Use your voice to uplift underserved folks. Create and participate in walks that promote inclusion and diversity. And donate to organizations whose focus is on equity.

Author Biography

Rebecca Waterman has been actively birding for about eight years. While not birding, she enjoys collecting and making art with bones, true crime podcasts, cooking, and her cat Scoops.

President's Message



Photograph by Arlen Snyder

OBA President Sarah Swanson (center front) leading "The Murre The Merrier" team for Portland Audubon's Birdathon.



Sarah Swanson

President
Oregon Birding Association

Directors Update Mission Statement To Better Serve All Oregon Birders

I am very proud of all of the work that the Oregon Birding Association board of directors has accomplished over the last year, especially given that half of the directors are new. I wanted to share with you one collective accomplishment of which I am especially proud. As the OBA board has met this year to make decisions about grants, budgets, speakers, field trips and OBOL guidelines, we have looked to the organization's mission statement for guidance. In doing so we realized that it did not fully capture the breadth of OBA activities, nor did it express the welcoming and inclusive environment that we want to see in OBA and the birding community.

A mission statement is a way for the OBA to communicate our purpose and direction to our members and the birding community. The board wanted our mission statement to incorporate more of what the OBA does, and emphasize that birding, and the OBA itself, are open to all. After months of discussion, thought, and rewriting, we are happy to share the OBA's new mission statement:

OBA believes that birding is for everyone, and works to serve the Oregon birding community and promote the enjoyment, knowledge, and conservation of birds through education, science, and shared birding experiences.

We included the word "serve" in our mission statement because the OBA board, the Oregon Bird Records Committee, the staff of Oregon Birding, our bookkeeper, and our webmaster are all volunteers, working to serve the needs of Oregon birders. My appreciation for all of the volunteers that make OBA function is enormous and increases every day that I work alongside them.

Do you see something in the new mission statement that speaks to you and makes you want to get more involved? We'd love to hear your ideas to make birding in Oregon even better. You can reach me through our website at oregonbirding.org.

Program Funds Three New Projects

Article by Tom Myers, OBA Board

Through its Fund for Ornithology, the Oregon Birding Association (OBA) offers three grants of up to \$1,000 each during two annual cycles. In the spring of 2021, the OBA received an array of collaborative and educational proposals, all aimed at promoting enjoyment, knowledge, and conservation of birds in Oregon.

We are excited to share information about the latest grant recipients, including a partnership between schools in Oregon and Mexico centered on the migratory birds they share, a podcast that highlights the experiences of BIPOC birders, and a YouTube series that educates Oregonians about a local species in peril.

About the Fund for Ornithology

The Fund for Ornithology began in 1988 with a generous donation from Medford birder and former OBA President Otis Swisher. The fund supports projects that promote the enjoyment, knowledge, and conservation of birds in Oregon. The program offers three grants of up to \$1,000 each during two application periods, with deadlines on February 1st and August 1st of each year.

The OBA Board's goal is to support the diverse community of bird lovers in Oregon. Therefore, we seek applications for projects that serve Black, Indigenous, and other birders of color, birders from working-class backgrounds, birders who identify as women, birders from the LGBTQIA+ community, and birders living with disabilities. We are especially interested in inquiries from those who lead these projects.

To learn more visit oregonbirding.org/oregon-fund-for-ornithology/

Always Be Birdin' Podcast

The *Always Be Birdin'* podcast, produced and hosted by Samantha DeJarnett, covers a wide range of birding topics and aims to change the narrative of birding and create awareness and a safe space for BIPOC birders.

The podcast is an essential source of information and knowledge of area birds and birding techniques. It is accessible to many groups, particularly BIPOC birders and others historically underrepresented in the birding community.

The OBA grant supports the podcast in purchasing physical equipment, compensating guests, creating merchandise, and preparing to launch a new website.

Samantha's ongoing interview series, called "Let's Dig Into It," highlights the issues BIPOC birders face in the field. Past interviews featured phenomenal guests from Black Birders Week, Freedom Birder Project, Black Girls Bird, Black Outside Inc., Amplify The Future, and The Black And Latinx Birders Scholarship.

Another ongoing series, "Creature Feature," highlights a specific bird spe-



Samantha DeJarnett, creator and host of *Always Be Birdin'* podcast.

cies and communicates exciting and unusual information. In addition, the podcast archive often provides a new and different perspective on birding. Past broadcasts include interviews with wildlife rehabilitators, avian trainers, field biologists, and ornithology students. This project is in partnership with Alpine Parrot and the Black and Latinx Birders Fund.

Listen to *Always Be Birdin'* wherever you find your podcasts.

Follow the podcast on Instagram [@AlwaysBeBirdin_Podcast](https://www.instagram.com/AlwaysBeBirdin_Podcast)

Vesper Video Education Series

The Vesper Video Education Series is a project of the Vesper Meadow Education Program in Medford. The OBA grant supports creating two educational videos and related classroom materials that highlight the importance of research and monitoring rare bird species. These two videos will complete a five-part series that began in the fall of 2020.

The videos in the Vesper Education Series showcase cutting-edge ornithological research at the Vesper Meadow Restoration Preserve, biological research career skills, and real-time habitat restoration for the imperiled Oregon Vesper Sparrow.

You can find the first three videos on the Vesper Meadow Education Program's Youtube channel. Videos and supporting Education Guides will be created with local teacher input and dispersed to a broad K-12 audience throughout southwest Oregon. This project is



Dr. Sarah Rockwell of the Klamath Bird Observatory conducting nest searches at Vesper Meadow with Program Coordinator Brian Geier filming (June 2021).

in partnership with the Klamath Bird Observatory, The Understory Initiative, and the Talent Outdoor Discovery School.

Learn more about Vesper Meadow's programs at www.vespermeadow.org and follow them on Instagram [@vesper_meadow](https://www.instagram.com/vesper_meadow).

Aves Compartidas Education Program

Aves Compartidas, Spanish for Shared Birds, is a youth education program that connects dual language students in the Willamette River Watershed with students in the Laja River Watershed in Guanajuato, Mexico. Students communicate through the lens of shared migratory birds through art, writing, photography, and a shared science curriculum taught in Spanish. Students develop a deep international connection and firsthand knowledge of ecosystems and the wildlife they support.

The OBA grant helps the program print and laminate bilingual bird guides that highlighting migration patterns to support student learning at home. Since 2018, the binational Aves Compartidas program has engaged students in ornithology education and field experiences.

In 2020, the program engaged five schools in the Willamette Valley and five schools in the Laja Valley. Even during the pandemic, the partners met monthly over zoom to continue planning for the program, creating bilingual videos lessons, activities, and zoom lessons.



Students made bird feeders using recycled plastic in the Laja Watershed.

This project is in partnership with the Institute for Applied Ecology, Mary's River Watershed Council, University of Oregon, Audubon de México, Salvemos al Río Laja, Cuerpos de Conservación, El Charco del Ingenio Jardín Botánico, and others.

Virtual resources of the program are available at www.willamette-laja.org/resources.

Follow this project on Instagram [@aves_willamettelaja](https://www.instagram.com/aves_willamettelaja).



Red Knots Alter Flyways During Spring Migration

Unexpected Oregon visits gave birders a once-in-a-lifetime experience

Article by David S. Irons

During the Spring of 2021, Oregon birders witnessed a once-in-a-lifetime northbound flight of Red Knots, particularly on the flats at Trestle Bay near the mouth of the Columbia River. Daily high counts numbered well into the hundreds 14-23 May. During this span, the previous record count from Oregon—143 at Tillamook Bay May 10, 1976 (McGie 2003)—was topped and obliterated no fewer than nine times.

Around the globe, the Red Knot (*Calidris canutus*) is an iconic shorebird, known for its spectacular brick-red underparts, incredibly long-distance spring and fall migrations, and in recent decades for its steep population declines.

Seeing this sturdy mid-sized wader adorned in its alternate (breeding) plumage is always a treat, especially during spring and early summer migration to the breeding areas in the Arctic.

Most birds make a few lengthy stopovers during spring migration as they travel from their Southern Hemisphere wintering grounds to breeding areas. This migration strategy is physiologically taxing, with many individuals losing half their body weight during this trek. Thus the timing of their arrival at key refueling areas is imperative.

For example, suppose optimal food supplies are unavailable when they arrive at crucial staging areas. In that case, Red Knots simply can't put on enough weight to withstand the rigors of

completing their migration and then breeding. Over recent decades the numbers of several subpopulations of Red Knot have crashed. The best-known example involves the western Atlantic subspecies (*C. c. rufa*), which, according to some estimates, declined by more than 60 percent between 1980 and 2010. Since then, their numbers have continued to dwindle (Baker et al. 2020).

The entire population of this subspecies stops to feast on horseshoe crab eggs at Delaware Bay. Over-harvest of the crabs and slight changes in the timing of crab egg-laying (presumed to be climate change-related) may be factoring in the dramatic decline of this population.

Along the Pacific Flyway, northbound Red Knots use San Francisco Bay and the combination of Willapa Bay and Grays Harbor in Washington as their primary refueling stations. Otherwise, modest numbers stop at Humboldt Bay in northwest California. In most years, few if any stop in Oregon estuaries.

This subspecies (*C. c. roselaari*) now number fewer than 20,000. Numbers at Willapa and Grays Harbor are down steeply from the all-time highs of the early 1980s, where record counts were 6,100 in Grays Harbor (5,000 at Bottle Beach) on April 27, 1981, and 3450 on Willapa Bay (2,750 at Willapa R. mouth) on May 12, 1983 (Wahl, Tweit and Mlodinow 2005).

When optimal NNW wind conditions align with the peak of shorebird migration (late April through mid-May), the spectacle of shorebirds migrating right along the beach can be awe-inspiring. Starting about April 20, Western Sandpipers, Dunlin, and Sanderlings can be seen passing by the thousands and sometimes tens of thousands in a single day.

Lesser numbers of Semipalmated Plovers, Black-bellied Plovers, Short-billed Dowitchers, Ruddy Turnstones, Whimbrel, and Marbled Godwits also come through, with these movements generally lasting into the third week of May.

A few Red Knots are in the mix most years, flocking with the other species and occasionally stopping to feed on open sandy beaches. While probably equally likely to be found along any long stretch of open beach, the 13-mile stretch of coast between Gearhart, Clatsop County, and the South Jetty of the Columbia River has consistently produced the bulk of Oregon spring reports and highest counts in recent years.

The reason for this is pretty simple. This beach is open to motor vehicles, making it easy to survey the entire stretch in less than two hours. In addition, in Coos, Douglas, and Lane counties, the daily presence of Snowy Plover researchers results in quite a few detections. However, accessibility issues, plover nesting area closures, and non-drivable beaches otherwise hamper efforts to survey the remainder of the Oregon coast effectively.

From April 22 into early May 2021, reports of 1 to 3 knots along Oregon beaches began to trickle in. Then, on May 4, the pace of sightings picked up noticeably, with reports of groups of 2 to 16 knots coming from five of Oregon's seven coastal counties. Nancy Clogston's report of 35 Red Knots on Baker Beach in northern Lane County on the that day was perhaps an early indicator of what was to come. Only Curry and Douglas counties had no reports of knots that day.

It was not until a week later that it became apparent an atypical flight was happening. On May 10, Phil Pickering had 41 knots fly by Boiler Bay, Lincoln County, and then he tallied 91 more there the next day. Also, on the May 11, Thomas Meinzen and Alan Contreras had 59 knots on Heceta Beach in northern Lane County. Over the next 4 to 5 days, seemingly everyone who surveyed Oregon's open beaches was racking up double-digit and sometimes even triple-digit counts of Red Knots.

Sampling of high tallies:

- **May 12 - 13 at the Oregon Dunes Loop Trail**
(Daniel Farrar)
- **May 12 - 85 at Sutton Beach, Lane County**
(Daniel Farrar, Mary Lee)
- **May 13 - 118 at the South Jetty of the Columbia River**
(Bill Shelmerdine)
- **May 15 - 82 at Heceta Beach, Lane County**
(Carl Lundblad)



Photos on pages 6 and 7 by David S. Irons

By mid-May, significant numbers of Red Knots began collecting in some Oregon estuaries, which is not a regular occurrence. On May 14, Barbara Dolan found a staggering 380 (nearly triple the previous Oregon record) at Trestle Bay in Fort Stevens State Park, and Pickering had another 150 on Siletz Bay, Lincoln County. Trestle Bay—accessed from Parking Area D—continued to produce eye-popping numbers and was the epicenter of this event through May 23. Daily high counts topped 200 birds on eight of 10 days, with a peak of 600 on May 18 (David Bailey and Diana Byrne). On more than half the days between May 14 to 23, peak counts of Red Knots at Trestle Bay topped 300 birds, and knots were often the most numerous shorebird species on the flats.

After May 17, open beach counts tapered off quickly, perhaps suggesting that the birds collecting at Trestle Bay and in the Lower Columbia estuary were lingering there for several days to fatten up before the final push to their breeding grounds in northwest Alaska and on Wrangel Island.

Although the seasonal high count reported via eBird for those two estuaries was a mere 300 on May 12 at Bottle Beach on Grays Harbor, Grays Harbor County supports that Washington's high count came nearly a week before the most considerable numbers massed at Trestle Bay. On May 15, Jim Danzenbaker, Shawneen Finnegan, and I birded the northern edge of Baker Bay in Pacific County, Washington, and found 180 Red Knots on the mudflats at Chinook County Park and 60 more at nearby Ilwaco. It is hard to know how many knots gathered in the Lower Columbia River estuary during the height of this incursion.

It is an expansive collection of mudflats at low tide, with many areas either inaccessible or only visible from great distances. Though it is challenging to survey the flats found in Trestle Bay, Baker Bay, and Youngs Bay south of Astoria, upwards of 1000 Red Knots might have been in the area during mid-May, surpassing any known counts for this species in Oregon.

Daniel Farrar, who has been doing Snowy Plover work on Lane, Douglas, and Coos County beaches for many years, shared a spreadsheet with all of his 2009–2021 Red Knot sightings. During this span, he has averaged about 3.3 days per spring with knot sightings, and that includes 13 days with sightings in



Photograph by Diana Byrne

A large gathering of Red Knots along the shore near Fort Stevens in May.



Photograph by Roy W. Lowe

Red Knots feeding on a beach in Oregon.

2019 when he saw a total of 50 Red Knots for the season. During Spring 2021, Farrar observed knots on 13 different days April 22 to June 17, tying his highest record from 2019.

However, this season's sightings totaled 267 individuals, more than five times his 2019 tally. Note that his June 17 sighting of two knots at Oregon Dunes Loop Trail was an outlier and the only sighting he had after May 17 and just his second June sighting during the past 13 years.

His two best single-site counts this year (listed above) far surpassed his previous best of 33 at Tenmile Creek on May 8, 2015, with the highest (136) nearly matching the combined total number of Red Knots (143) that he had observed over the previous 12 spring seasons.

In the context of all-time highs from favored stopovers, the counts listed above may not seem all that impressive. However, compared to eBird data and historical records from Oregon, the Spring 2021 flight of Red Knots was not only wholly unprecedented but also EPIC!

Before this year, there were only three spring eBird reports of 40+ birds, with the highest being 55. From May 10-23, there were no fewer than 27 reports of 40+ individuals along the Oregon coast. Of these, 19 topped the highest prior eBird count, and all 12 counts of 100+ were at least double the previous eBird record.

The timing of this flight was also of note. In most years, the peak counts in Washington estuaries occur before May 15, with knot flights dovetailing with the mass movements of other species of Arctic-breeding waders. Oddly, the actual onset of this flight didn't happen until May 10, with the highest counts coming more than a week later than normal. The cause expected for this late-peaking Red Knot flight is uncertain and may well be attributable to conditions at or closer to the start of their migratory journey.

There is also no obvious explanation for why knots were piling up around the mouth of Columbia River rather than flying for another hour or two to their distinct staging areas on Willapa Bay and Grays Harbor.

One thing is for sure, we are fortunate to have this data captured and mapped through crowd-sourced eBird checklists, making it much easier to quantify and appreciate just how particular this flight was.

Literature Cited

Baker, Allan, et al. "Red Knot." *Birds of the World Online*, Cornell Lab of Ornithology, 2020, <https://birdsoftheworld.org/bow/species/red-kno/cur/introduction>.

McGie, Alan, et al. "Red Knot." *Birds of Oregon: A General Reference*, Oregon State University Press, Corvallis, Oregon, 2003, pp. 232–233.

Wahl, Terence R., et al., editors. *Birds of Washington: Status and Distribution*. Oregon State University Press, 2005.

Author Biography

Dave Irons started birding at age six and became fully hooked by age 17, when he connected with other teenage birders. More than a half century later his curiosity about vagrancy, biogeography, the finer points of field ID and seeking opportunities to pass forward what he has learned continue to drive his passion. Dave is a past member of Oregon's Bird Records Committee (OBRC) and was a regional editor for *North American Birds* for more than a decade. His ABA Field Guide to the Birds of Oregon was published in the Fall of 2018.

A New Oregon Big Day Record

Article by Jay Withgott

Photograph by Adrian Hinkle

A Black-and-white Warbler was just one of the 228 species spotted on the east-to-west journey.

A different approach to the journey results in an exceptional list

Oregon has acquired a new record for the most species of birds detected by one team within 24 hours. On May 10, the foursome of Adrian Hinkle, Rich Hoyer, Noah Strycker, and Jay Withgott traveled from Summer Lake to Newport, birding from midnight to midnight, ending up with 228 species. This total eclipsed the record of 219 set by Tim Janzen, Dave Irons, Noah Strycker, and John Sullivan on June 2, 2007.

This article presents a complete account of our day, some introductory context, and concluding thoughts. Checklists for all sites covered are found on eBird, and a summary list of the day's 228 species is presented at ebird.org/checklist/S87799891.

Background and Context

Oregon has a rich history of big days, and we plan to explore this history in a separate article in the next issue of Oregon Birds. As with big years, big days have long held an allure for birders who wish to challenge themselves in tests of skill and endurance. To find and identify 200 or more species within the confines of a state the size of Oregon tests one's birding skills and knowledge of the avifauna at multi-

ple scales, from the macro-scale of biogeographic regions to the micro-scale of particular locations.

Drawing together this knowledge to design a route that can maximize the number of species encountered in 24 hours is a formidable task of logistical planning. One key question in planning any statewide big day attempt for Oregon is which direction to travel. Most Oregon big day efforts have been run from west to east, starting on the coast, progressing through the Coast Range and Willamette Valley, climbing over the Cascades, and finishing in the high desert regions east of the Cascades.

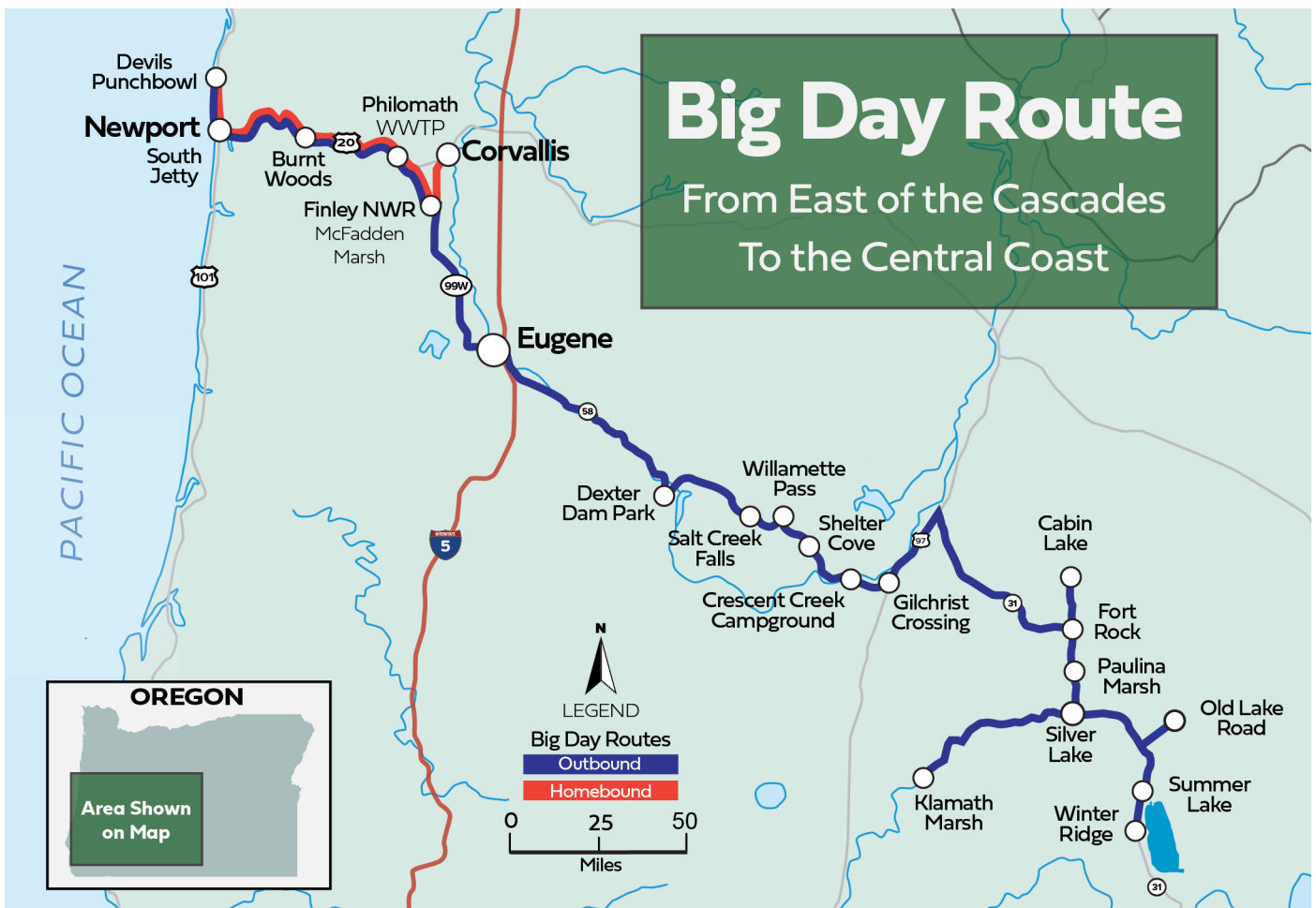
A second key question is what date to select. Again, a clear trade-off exists: If one chooses early May to catch the shorebird migration and ensure lingering waterfowl, then one has fewer hours of daylight, many passerines may not yet be on their breeding territories, and one will miss late-arriving migrants such as Willow Flycatcher

and Common Nighthawk. However, if one chooses late May or June when breeding passerines are more reliably located and daylength is longer, one sacrifices many shorebirds and waterfowl.



Photograph by Rich Hoyer

Record breakers after their Big Day included Jay Withgott, Noah Strycker, Adrian Hinkle, and Rich Hoyer.



Oregon Birds Map by Mike Williams

The 24-hour quest began at Klamath Marsh (lower right on map) and traveled the **Outbound** route to the Devils Punchbowl (upper left on map). The team then proceeded on the **Homebound** route, ending their journey in Corvallis.

The 2021 Strategy

Adrian Hinkle, who organized our effort, helped set a new California big day record just two weeks before our Oregon attempt! The fresh perspective of youth can be a valuable thing. While big day veterans such as Tim Janzen and I had primarily concluded 14 years ago that a west-to-east route run later in the year was optimal, Adrian had other ideas.

He envisioned an east-to-west route on an early May date that could fulfill the rich potential of morning birding in the high desert and capture the coastal shorebird migration, even if it required overcoming suboptimal evening sea watching conditions. In adopting this approach, our team knew we were following a high-risk/high-reward strategy in which success would depend on exceptional scouting, favorable weather, and logistical discipline.

Thanks to all three, we executed the vision. Scouting was vital, and we each invested several days, with Adrian covering Lake



Photograph by Noah Strycker

Tundra Swan at Klamath Marsh.

County sites, Noah covering the Cascades, Rich covering the Valley and Coast Range, and me covering the coast.

We also owe thanks to many other birders, including Craig Miller, Phil Pickering, and Christopher Hinkle, for advice with this big day. Tim Janzen, Dave Irons, Dave Ward, Ron Carley, Jennifer Devlin, Em Scattaregia, and others have run previous big days and birdathons that helped shape our thinking and inform our route.

Modern big day efforts also benefit from a wealth of information from eBird checklists, listserv postings, and WhatsApp reports. However, in concordance with ABA big day rules, we did not consult these or any other outside sources during the big day itself.

Now, come ride along with us for a whirlwind of 24 hours of birding through the remarkable diversity and majesty of ecosystems we are blessed with here in Oregon.



Photograph by Rich Hoyer

As dawn approaches, the moon sets over the sagebrush at Picture Rock Pass.

Leg 1: Marsh, Stars & Owls

Midnight found us at Klamath Marsh under a magnificent star-filled sky, hoping to hear the delicate clicking calls of Yellow Rails amid a magical nocturnal chorus of Soras, Virginia Rails, and Marsh Wrens. An hour or so of shivering in the dark paid off when one recently arrived Yellow Rail finally called. We also spotted a lingering Tundra Swan and a beaver swam by for our first mammal of the day.

The night sky treated us to several meteorites and the International Space Station flyby in this remote region with minimal light pollution. We also witnessed a procession of new Starlink satellites sliding eerily through the blackness. This truly bizarre and unsettling sight left us contemplating just how deeply humanity has pulled our planet into the Anthropocene.

Our starry-eyed marsh duties completed, we moved on to an area known for Great Gray Owl in the past. We were not planning on finding this species, but after a brief bit of playback, a Great Gray Owl sounded off with its low hooting.

Then, with Rich at the wheel, we drove to a traditional spot for Flammulated Owl near Silver Lake. An unaccountably revved-up Saw-Whet Owl was filling the airspace here with raucous tooting, and we heard a Common Poorwill over the din, but we failed to get Flammulated. As the temperature dipped to 23 degrees, the comfort of our heated rental vehicle was our reward at the end of each stop. Rounding off our owling, we heard a calling Burrowing Owl we'd scouted in the Silver Lake area.

Leg 2: Eastside Bonanza

As dawn approached, the sagebrush flats between Silver Lake and Summer Lake came alive with the song of Sage Thrashers, among which we detected the first utterances of Horned Larks, Say's Phoebes, and Sagebrush, Vesper, and Brewer's Sparrows. A flashlight revealed a Ferruginous Hawk roosting in a tree. Near Picture Rock Pass, we heard Black-throated Sparrow and Canyon and Rock Wrens, and a vocalization that threw us all for a loop. Chukar? Prairie Falcon? Canada Goose? Other?? At last, a Golden Eagle sailed across the cliffs, and we had our answer.

At 5:40 a.m., we started up the road to Winter Ridge, where fires had created a complex landscape of clearings, manzanita scrub, and pine woodland. A Mountain Quail called, and the sight of a Sooty Grouse hooting high in a ponderosa allowed us to watch its colorful air sacs inflating with each hoot. In rapid succession, we added Lewis's Woodpecker, Mountain Bluebird, Townsend's Solitaire, Fox Sparrow, Brown Creeper, and Pileated Woodpecker. Unfortunately, we could not find Black-backed Woodpecker, but Williamson's Sapsuckers quarreled noisily in the snags above our heads. As we moved back down in the sunlight, we uncovered a Blue-gray Gnatcatcher previously hidden silently in the cool shade at a spot that's been reliable for them for close to two decades now.

We then launched ourselves into a frenzied prime-time tour of the spectacular birding mecca that is Summer Lake Wildlife Area. We began by searching for a Black-and-white Warbler that Adrian had discovered behind the inn two days earlier. We managed to re-find this eastern North American vagrant as it crept along willow branches, whispering its lispy song — a great bonus bird for the day! On our way out, we stumbled into the day's only Golden-Crowned Sparrow.

Around the Summer Lake Wildlife Area headquarters, we failed to locate a Black-chinned Hummingbird. Still, we found Rufous Hummingbird, Western Bluebird, Ring-necked Pheasant, Trumpeter Swan, Cedar Waxwing, and hordes of Cassin's Finches foraging on elm seeds.

Picking up Ruby-crowned Kinglet and Nashville and MacGillivray's Warblers was a relief, saving us from needing to sink time into searching for them later in the day. In just over an hour of birding Summer Lake's best spots, we recorded 98 species — a "big hour" within a big day. (And in case you're keeping track, the Hinkle twins once recorded a "big minute" of 30 species in 60 seconds!)

Summer Lake's Wildlife Loop held all its expected shorebirds (like American Avocet, Black-necked Stilt, Willet, and Snowy Plover) and waterfowl (including Redhead, Canvasback, and a lingering Common Goldeneye). We also spied two Snowy Egrets among the Great Egrets and Red-necked Phalaropes among the

Wilson's Phalaropes. White-faced Ibis, Black-crowned Night-Heron, American Bittern, Forster's Tern, and Eared, Western, and Clark's Grebes all made appearances.

With enough squinting through a scope, a distant raptor revealed itself to be a Short-eared Owl, swiveling its head searching for prey in the morning sun. A Loggerhead Shrike closed out our Wildlife Loop tour, and we were back on the highway heading north.

After a quick gas stop at Silver Lake, we passed Paulina Marsh, picking up Franklin's Gull at an irrigated field and Gray Flycatcher in a juniper patch.

Finally, we spotted a Prairie Falcon in flight, so when we arrived at Fort Rock, all we needed were the White-throated Swifts reliably wheeling above the cliffs.

Next up was Cabin Lake, where to our delight Pinyon Jays were flying about as we stepped out of the vehicle, and where Clark's Nutcracker, Pygmy Nuthatch, and White-headed Woodpecker eventually cooperated. We left Cabin Lake at 10:14 a.m. — 22 minutes behind schedule but with several key species that would allow us to save time by skipping sites later on the route.

We next hit the Gilchrist crossing of the Little Deschutes River, a traditional spot for Northern Waterthrush. We didn't expect a Waterthrush to have arrived yet, but the location was promising for Calliope Hummingbird, and we'd left a feeder here. To our satisfaction, playback roused a Northern Waterthrush, which gave us good views as it sang.

But a female Calliope Hummingbird liked our feeder a great deal. So, in the spirit of "Do not feed the wildlife" and "Don't pollute the world with plastic," we reclaimed the feeder and left that little lady to her own devices foraging among the wax currant blooms.

Leg 3: The Middle Innings

Ascending west into the Cascades, a quick stop at Crescent Creek Campground netted Cassin's Vireo, while a check of Shelter Cove at Odell Lake yielded Barrow's Goldeneye, Osprey, and Vaux's Swift. We found a bird already on the territory at a traditional breeding spot for Lincoln's Sparrow near Willamette Pass.

At the same time, nearby Salt Creek Falls Sno-Park yielded Varied Thrush and Chestnut-backed Chickadee. Passing over the divide, we tallied a scouted-out Dipper as we coasted downslope.

The west end of Dexter Lake produced several new species such as Orange-crowned Warbler, Black-capped Chickadee, and

Swainson's Thrush. Finally, heading down into the Willamette Valley and through Eugene, we bypassed several sites on our itinerary, continuing straight to Finley NWR.

At Finley's McFadden Marsh, we added Wood Duck, Warbling Vireo, Black Phoebe, and a lingering Eurasian Wigeon. A series of stops in the refuge and along Bellfountain Road satisfied most of our remaining Valley needs, and we headed for the venerable "PPP" (pleasant popular terminology for the Philomath Poo Ponds). Here the mitigation wetlands held nine shorebird species, including a Solitary Sandpiper. Curiously, also in the wetlands was a neck-collared Trumpeter Swan noted during previous days at McFadden Marsh.

We left Philomath on schedule (rare for a big day!) and sped west to our only Coast Range site, a loop road through the hills at Burnt Woods/Goat Ridge. We'd barely squeaked out migrant passerines like Western Tanager and Pacific-slope Flycatcher, and some yawning gaps remained in our list. Red Crossbill (all over the Valley at the time) was one; Western Wood-Pewee (just arriving) was another. Some misses, like Dusky Flycatcher, were gone for good; others, like Townsend's Warbler, Northern Pygmy-Owl, and all three Accipiters, remained within our grasp — but time was getting short.

By making many brief stops in the forest and clear-cuts of Burnt Woods, we painstakingly picked up one species after another. A distant Olive-sided Flycatcher. A Hutton's Vireo was heard

by only one of us. A Purple Finch, at last. And on our final stop, a gratifying one-two punch of Hammond's Flycatcher and Canada Jay. Whew! We also enjoyed a bobcat and a Bramble Hairstreak (a little green beauty of a butterfly).

It was 5:49 p.m. as we hit the highway to Newport, where a waiting slew of coastal birds would decide our fate.

Leg 4: The Coastal Gamble

One downside of doing an east-to-west route is that evening seawatching is poorer than morning seawatching. Fewer birds are moving, and staring west into the setting sun means dealing with backlighting and glare.

As we hit the coast on May 10, sun glare was making vast swathes of the ocean unviewable, while 20-25-mph winds were jostling our scopes and sending us scurrying toward whatever shelter we could squat behind. Thank heavens we'd had Wrentit back near Finley because there was no way we were going to eke one out in these wild gusts. Yet the weather also acted as our ally because the predominantly north wind kept migrating shorebirds close to shore, causing them to stop on beaches as they hop-scotched north.



Photograph by Adrian Hinkle

Sunset scoping at the Yaquina Bay South Jetty.

We intended to seawatch from Yaquina Head, but staffing shortages had caused the BLM to close the site at 5 p.m. on weekdays. So we had to go to Plan B. We first checked Moolack Beach, hoping for Black Scoter, and instead found a terrific trio of big brown jobs (BBJs?) on the beach: Whimbrels with a Marbled Godwit and a Long-billed Curlew.

We then placed our seawatching bets on Devils Punchbowl, investing nearly an hour from its high bluffs squinting at distant backlit specks in the choppy waves while being buffeted by inescapable winds. Marbled Murrelets were on the water, and we were excited to spot a migrating flock of Brant, a species that had cleared out of Yaquina Bay a month earlier.

But very few birds were flying by, and it took concerted effort to pick out expected species like Common Murre, Surf Scoter, Pigeon Guillemot, and Common and Red-throated Loons. We barely eked out Red-necked Grebe and Rhinoceros Auklet.

Thankfully, the beaches were good for us. A Ruddy Turnstone foraged amid Black Turnstones. Surfbirds went missing, but a Wandering Tattler and Black Oystercatchers were present. And two Red Knots in lovely breeding plumage graced the sands. Finished here, and with no time for Boiler Bay, we headed back south. A quick stop at Nye Beach netted two Black-bellied Plovers, further validating our choice of an early May date targeting shorebird migration.

At last, it was time for Yaquina Bay. Unfortunately, we were stuck with a low tide, so birds were distant as we viewed them from the Aquarium end of the Hatfield Marine Science Center trail. While Semipalmated Plovers were close on the mudflats, Mew Gulls were far away and Greater Scaup even further. Diligent scoping turned up Red-breasted Merganser and Horned Grebe, and as we turned to leave, a Red-shouldered Hawk took flight.

Leg 5: Endgame in the Fading Light

For the last remaining daylight, we raced out to the South Jetty, where we were sand-blasted in the dunes (I am still today picking sand grains out of my optics). We could not find a Harlequin Duck, and astonishingly we also missed Pacific Loon.

However, a single Greater White-fronted Goose stood forlornly on the beach, and a few White-winged Scoters hunkered low on the water. As it became too dark to see, we staggered through the sandstorm back to the vehicle and rechecked the bay for Short-billed Dowitcher without success.

As darkness fell, we were equally in the dark about our species total, as we had not tallied our list all day. It was time to end the self-imposed mystery. The happy result of **225** gave us the record. Yet there were still two hours left before midnight!

So we drove back to Finley to search for scouted-out night birds. Along Bellfountain Road, a Yellow-breasted Chat was tooting and whistling up a storm in the dark: **226**. Stops for Barred Owl failed, but we eventually sighted a Barn Owl in flight for **227** and shortly after that heard Western Screech Owl for **228**. No Grasshopper Sparrow sang at the prairie overlook, and we couldn't convince a Green Heron to reveal itself at Butterfield Park.

We spent our final eight minutes at Willamette Park in Corvallis, where our day ended as it began: with Sora. Unlike the Klamath Marsh chorus 24 hours earlier, this was a single bird, a Sora calling while migrating overhead in the dark: "Turrr-eeeeep!" ... Or maybe it was "Go Sleeeeeeep!"?



Photograph by Adrian Hinkle

The final trek of the day.

Why Do This, Anyway?

Big days are, admittedly, not everyone's kind of birding. There is no time for extended behavioral observation, and there is no conservation benefit. Yet beyond simply building a long list of species, big days—and the extensive scouting and planning that inform them—help develop a sharply attuned sense of the habitat preferences and biogeographical distributions of over 200 species across the landscape. And big days are invigorating and memorable experiences that condense the magic and joys of birding into a powerfully compact package.

Our journey on May 10 brought us star-filled skies over a vast marsh full of rails, the stark beauty of Winter Ridge towering over Summer Lake, the glorious monolith of Fort Rock, the smell of ponderosa pines, the snow of the high Cascades, the warm and lush Willamette Valley, and the surf of the Oregon coast — all in a day. To absorb so many of Oregon's diverse ecosystems and breathtaking landscapes in a single 24-hour period gives one a focused appreciation of how fortunate we are to live in such a rich part of the world.

Author Biography

Jay Withgott is an eBird reviewer, Oregon Bird Records Committee member, and board member for the Xerces Society for Invertebrate Conservation. "Big Day Jay" has run big days in 10 U.S. states and over 20 counties in his career, helping set records in 3 states and 13 counties.



First Place, April 2021 – Barn Owl in Ashland. Photograph by Karl Schneck.

Monthly Photo Competition

OBA Contest Winners

Oregon birders see everything from common birds to scarce rarities and by entering the Oregon Birding Association Photo Competition each month, they get to share their sightings with everyone.

It might be a photo of a beautiful Robin that made you stop taking them for granted, or a Summer Tanager that lights up the high desert. Photography can be a gateway into a new passion. It's easy to get hooked when you see all the amazing birds we have in Oregon showcased on the website of the OBA, and now here in Oregon Birds - The Journal of Oregon Birding and Field Ornithology.

The rules are simple; usually we have a "monthly theme and time frame" to help guide your search for the perfect shot. Submission of a single image entry is by email.



First Place, August 2021 – Juvenile Northern Flicker in Hillsboro.

Photograph by Danielle Carrico.

If you have questions please contact Zia Fukuda, the contest manager at zialeefukuda@gmail.com

Full contest rules and information can be found at: oregonbirding.org/oba-monthly-photo-contest/



First Place, February 2021 – Golden-crowned Kinglet in Multnomah County.

Photograph by Ed McVicker.



First Place, July 2021 –Common Nighthawk at Langell Valley in Klamath County. Photograph by Howard West.



First Place, June 2021 – Brandt's Cormorants at Yaquina Head. Photograph by Jan Knott.



Third Place, June 2021 – Whimbrel in Florence. Photograph by Allen Brooks.



Third Place, August 2021 – Rufous Hummingbird in Springfield. Photograph by Karen Rush.



First Place, May 2021 – Bushtit in Beaverton. Photograph by Steve Dimock.



Second Place, August 2021 –Sharp-shinned Hawk in West Linn. Photograph by Diantha Knott.

Helping others

“GET ON THE BIRD”

Article by Paul T. Sullivan

On group birding outings one person will regularly find a good bird and try to share it with others in the group. Sometimes this is accomplished quickly, other times not so quickly. I have been leading birding field trips for over 30 years and have developed a suite of techniques to help others “get on the bird” quickly. It leads to lots of smiles.

Things TO Do

1 SAY WHAT YOU KNOW

Don't watch a bird for some time, trying to figure out what it is before you say something. Say “I'm looking at a big dark bird. I don't know what it is.” Or “I see a little busy bird half-hidden in the underbrush, black and orange.” This gets you help looking at the bird.

2 SAY ALL THAT YOU KNOW

Say, “I'm looking at a Prairie Falcon, perched on a utility pole on the right side of the road. It's the fourth pole back from the road in the powerline running toward the red barn.” If a bird is crossing the bow of the boat, say, “Pink-footed Shearwater crossing the bow, going left to right.” Don't make people ask, “Is it big or small, perched or flying, yellow or red; which way is it going?” That wastes time, and time may be short if the bird is moving. Give complete information up front.

3 IF THE BIRD IS MOVING, GIVE A PLAY-BY-PLAY

If a bird is moving, say that up front. Say, “I'm looking at a flying Rough-legged Hawk on the right side of the road, three-quarters of the way across this field toward the peak of the snowy mountain, below the horizon. Now it's going left, circling, circling, now going back to the right. Coming toward us. Just went past the silver roof of a white barn. Now going further right.” Do a similar play-by-play if a bird is swimming, or walking in a meadow. “The curlew is walking left just in front of four fence posts with cross-braces connecting them.”

4 LOCK ON THE BIRD, THEN LOWER YOUR BINOCULARS AND GET THE CONTEXT

When you find a good bird, lock on it. Set your feet, waist, neck, wrists, and elbows. In your binoculars note the immediate surroundings of the bird, the branches in front and behind, the nearby weeds in the field, other ducks next to it, etc. Then swivel **JUST YOUR SHOULDERS** to lower your binoculars. Look with your naked eyes and see the bird in the wider view of what is around it. Raise your binoculars back to your eyes and re-find the bird. Maybe repeat this a second time, so you know the wider picture where the bird is and how to find it in that scene.

5 SPLIT THE DICTIONARY

Divide the scene in quadrants. Is it on the left or right side of the road? Is it ahead of the caravan or perpendicular to it? Is it above the horizon or below it, in the blue sky or the white cloud? Is it on the fence or on the gravel? Top wire or second? In a tree or on the ground? If you narrow the universe where people should look, they will find the bird sooner.

6 DEVELOP A NARRATIVE TO LEAD OTHERS FROM THE GENERAL SCENE TO THE PARTICULAR LOCATION OF THE BIRD

Pick an unambiguous landmark to start your narrative, then proceed to lead people from that spot to the location of the bird. For example, I once directed a caravan of birders in cars (using FRS radios) to a Bald Eagle with these directions: “On the left side of the road there is a fence line that goes out across this pasture. At the far end of the fence, above the trees at the river, there is a grassy meadow on the ridge. At the left end of that meadow is a tall Douglas-fir. On top of that fir is a white dot. That is the head of a Bald Eagle.” Although it was almost a mile away, everyone was able to find the bird.

7 BE UNAMBIGUOUS

If there are three red barns or four white boats, lead people to the correct barn or boat. Get people on the right Ponderosa pine. Pick out the distinctive cow in the herd, start there and lead people to the Snow Bunting in their midst. Start with the tallest bush in the hedgerow, the one with white blossoms, and work left or right from your unique landmark.

8 BE CAREFUL USING THE CLOCK FACE IMAGE

A frequent convention used in birding is to place an imaginary clock face on the scene. If you are in a boat, bus, or car caravan, twelve o'clock is straight ahead, six o'clock is straight behind, etc. If you are looking at a tree, twelve o'clock is at top center, three o'clock is on the middle right, and nine o'clock is middle left, etc. Locations between these points can be reported as other hours on the clock face. This is fine if everyone knows where twelve o'clock is. However, saying, “Painted Bunting at two o'clock!” is meaningless. No one else knows where your clock is in their field of view.

9 GET PEOPLE ON THE RIGHT TREE BEFORE YOU TRY TO LEAD THEM TO THE BRANCH

If you have a perched bird in a grove of trees, start by figuring out which tree it is in. Lead people's attention to the base of the tree. Say, "See this big pine right here close to us. Look two trees to the left of it, behind it. That is the tree the bird is in." Tell them if it is in a maple, not a pine.

10 USE LANDMARKS WITHIN THE TREE

Tell them which side of the trunk the bird is on (split the dictionary). If there are two trunks, get people on the correct trunk. Then tell them it is two-thirds of the way up the tree, half way out from the trunk toward the tip of the branch. Find an obvious hole of blue sky through the tree or locate the horizon behind the tree, then locate the bird relative to that. Tell them if it is moving or still, facing right or left.

11 TELL PEOPLE WHEN THE BIRD IS NOT IN SIGHT

Tell people when the duck dives or the woodpecker goes around the trunk. Save them from frustrated searching. Tell them when it reappears.

12 BE CLEAR WHEN USING "LEFT" AND "RIGHT"

Some people have difficulty with this. If the bird is on the right side of the road, but the left side of the tree, give those full directions each time. One wrong turn can send people off into never-never land.

13 ONCE THE BIRD IS IDENTIFIED, REPEAT THE NAME (AND SEX) OF THE SPECIES

People need to know what to look for. They need to know whether the woodpecker is a Pileated or a Downy. They need to know if the bird is a drab female, not a bright male.

14 REPEAT YOUR DIRECTIONS

There will always be people who aren't paying attention, or who miss the beginning of the narrative. Recapitulate: "Prairie Falcon, perched, right side of road, fourth utility pole back from the road, in front of the red barn." People will struggle with right vs. left, pine vs. fir, which red barn, etc. Patiently repeat the directions. Clarify.

15 HELP THOSE WHO ARE STRUGGLING

Help those who are struggling to see the bird. Get the person looking at the right bush, fence, or other landmark. Perhaps the person needs to move a bit because there is an obstacle in their line of sight. Help them see over the hedge.

16 GET THE BIRD IN A SCOPE

If the bird is cooperative, get it in a scope, or several scopes. Lower the scope so the shortest member of the group can see. Let others look. Tell them where the focus knob is. Tell them where the bird is in the field of view, and what field

marks to note. If you are one of a group using a scope, take a look, see the bird, then step clear out of the way so someone else can look. Don't kick the leg of the tripod.

17 ACKNOWLEDGE MISTAKES

If you goof up, acknowledge that and correct your narrative. "I'm sorry, the female Williamson's Sapsucker turned out to be a flicker."

18 GIVE CREDIT, PRAISE TO OTHERS

Thank the person who found the good bird or gave good directions.

Things NOT To Do

1 DON'T TRY TO FIGURE OUT THE BIRD BEFORE YOU SAY ANYTHING

Don't come along and say, "I saw a little bird over there that was bright blue, red, and green, but it flew away and I don't know what it was."

2 Don't say, "The bird is straight in front of me."

That statement conveys almost no information; every location fits that description. Others have to come to you and see where you are facing. Landmarks are unambiguous and lead others to the bird more quickly.

3 Don't be afraid to take your binoculars down and put them up again to re-find the bird

With practice you can get good at this. It will let you locate birds in their wider context, so you can help others see them too.

4 Don't describe a branch before you say where

Don't begin your narrative with, "It's on a straight bare branch with a crooked branch coming down behind it. Do you see what I mean?" People will ask, "Where are you looking? Which tree?"

5 Don't use moving landmarks

A big red truck traveling past on the highway is not a good landmark.

Using these techniques, you can help others to more quickly see and enjoy the birds everyone wants to see. It will also earn you some well-deserved appreciation, maybe even your favorite beverage at the end of the day.



Oregon's First Confirmed Record of Winter Wren

(*Troglodytes hiemalis*)

Article by Caleb Centanni

Photograph by Jack Williamson

Rainy day hike before class in Corvallis produced big surprise

The morning of February 28, 2021, was a seemingly uneventful one. My partner Courtney Kelly Jett and I planned a quiet morning hike on the rain-soaked Lewisburg Saddle in OSU's McDonald Forest. There was plenty of time before attending a class in Corvallis until I messed up our navigation, and we instead hiked toward Dimple Hill from the Oak Creek watershed.

We had just started the muddy climb when among the constant chorus of Pacific Wrens, we caught a few pairs of musical "chimp" call notes much like the excitement calls of a Type 2 Red Crossbill. Courtney called attention to it a split second before me, and we both had our phones recording within a few seconds. I thought it might be a crossbill, she thought it might be a grouse, but we both suspected it was just a squirrel.

The messy understory of a young Douglas-fir plantation was where we hardly expected to find a rarity. Still, we decided we'd better pursue the unknown vocals as a learning experience. When it became clear they were coming from the understory and moving location quickly, I knew I had to discover this bird.

The answer came in a sprightly little mouse of a bird which darted across the forest floor and perched upon a stick pile. I realized the noise was almost a perfect match for one I had been listening for in Oregon for years, but I hardly expected ever to find it. I turned to Courtney and whispered with excitement; "I think it's a ... Winter Wren!"

In disbelief, we stayed with the bird for an hour, making all the recordings we could, getting several good looks, and sharing the possible rarity on our local WhatsApp group.

We eventually left the bird to continue our hike, excited but preparing ourselves for it to be called a "possible Winter Wren" and never be confirmed since hybrids are hard to eliminate. Nolan Clements in Wallowa County faced this situation for his excellent candidate found earlier that winter.

We ran into expert Benton County birder and ornithologist Doug Robinson on our way out, and he shared our expectations but hiked down to make better recordings if it was the real thing. Doug and others had compared the bird's calls to Washington and British Columbia recordings by that afternoon. A consensus was building that this was it: Oregon's first record of a Winter Wren.

After long dreaming of first state records and traveling to vagrant traps together, Courtney and I were full of disbelief and excitement. We thought we might find a state first after many years of trying on the South Coast and in Southeastern Oregon. But, instead, finding one in the McDonald Forest felt unreal.

Despite the unexpected location and timing of this find, Oregon's first Winter Wren was long anticipated. With populations north in the Canadian Rockies of British Columbia and multiple records on the Central California Coast, finding a Winter Wren seemed inevitable in the vastness of our diverse state. As it turns out, early 2021 was the perfect time for this to happen.

In January, a recording made in a nondescript west-side Washington forest identified that state's first Winter Wren. And while our Oak Creek bird still 'chimed' cheerily from its hillslope, another discovery occurred on the California Coast.

The McDonald Forest wren stayed from late February until at least April 4, 2021. Although, unfortunately, it was sometimes hard to detect, and the steep, muddy location presented some accessibility issues, at least 60 birders (and probably many more) to hear or see it; the Oregon Bird Records Committee (OBRC) accepted the record in July 2021.

Unlike Pacific Wrens (one of Western Oregon's most common forest birds), identification by sound rather than sight make Winter Wrens unique among Oregon's rare birds. The Oak Creek bird had an unusually whitish breast for a Pacific Wren. Unusually pale wrens seen before gave diagnostic calls for Pacific. Detecting the bird in the first place required ears prepared to pick out something different, a skill Courtney and I have gained over time from experience doing point count and hiking surveys in Oregon's mountains. What clinched the ID was the sonograms obtained through recording the bird.

Sonogram analysis seems helpful across the modern birding and ornithology world, from crossbills to nocturnal flight calls to bioacoustics. Sonograms show the duration and pitch of a recorded sound. The number and relative volume of pitches sounding simultaneously make the sound quality.

For example, a Steller's Jay call sounds rough and hoarse because of many pitches sounding loudly, while a Golden-crowned Sparrow song sounds clear because it is mostly one melodic pitch sounding louder than any others.

The sonogram of a Pacific Wren's call notes shows two critical differences from Winter Wren calls. First, the Pacific Wren notes have a higher peak (highest) frequency and a rougher, less musical tone quality, as shown by a dark, vertically filled-in call note on the sonogram, indicating many pitches sounding at once. In contrast, the Winter Wren calls have a single loudest pitch sounding, making them sound more evident and similar to a Song Sparrow or a Red Crossbill than a Pacific Wren.

Second, the Oak Creek bird's calls were slightly higher than some recordings of Winter Wrens from Eastern North America but matched recordings made in Washington and British Columbia perfectly and were much more similar to Winter Wren in tone. Between September 2020 and May 2021, Oregon recorded five bird species previously undocumented in the state, more than typically identified in two to three years. I hope that,

more than anything, this record and this article tell us that wonderful surprises are out there, waiting for birders with open ears, eyes, and minds to find them and (hopefully) document them with recordings and photos.

As our birding community grows more inclusive, the possibilities for a memorable experience are growing fast. Whether you're hoping to find a first state record in your hometown or just learn about the everyday birds that live there, increased access to helpful resources and technologies will help.

In an era of seemingly perpetual natural disasters and a global pandemic, I'm often happy just to walk out my door and find that the local Chestnut-backed Chickadee flock is still there. So finding a Winter Wren on a random, muddy hiking trail in Corvallis is not an experience I'll ever forget.

Instead, it is an excellent reminder that, with patience, you can find amazing things just by hiking through the forest. In the meantime, I look forward to whatever the next surprise that comes calling, fluttering, or gliding out of an unexpected corner of Oregon is.

Author Biography

Caleb Centanni is an avid birder and ornithologist based in Corvallis, Oregon. Caleb is studying Fisheries, Wildlife, and Conservation.

Literature Cited

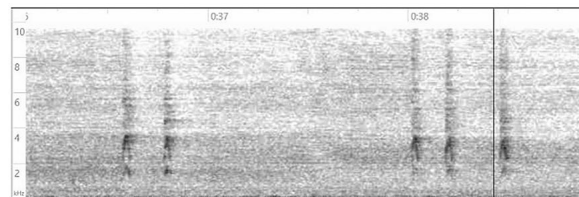
Clements, Nolan, et al. "EBird Checklist: Enterprise WMA, Fri, 18 December 2020, 12:22 PM." *EBird*, The Cornell Lab of Ornithology, 2020, <https://ebird.org/pnw/checklist/S77644758>.

"Species Maps: Winter Wren." *EBirds*, The Cornell Lab of Ornithology, <https://ebird.org/species/winwre3>.

"The Records of the Oregon Bird Records Committee." *Oregonbirding.org*, Oregon Birding Association, Aug. 2021, <https://oregonbirding.org/wp-content/uploads/2021/07/recordsaugust2021.pdf>.

Robinson, W. Douglas. "Audio." The Macaulay Library, The Cornell Lab of Ornithology, Feb. 2021.

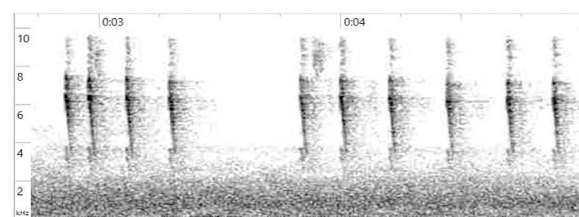
Figure 1. Sonogram of the Oak Creek Winter Wren



Doug Robinson's Recording of the Oak Creek Winter Wren from February 28, 2021. Note the peak frequency below 4 kHz and the single loudest element sounding at any given time, resulting in musical quality.

Source: W. Douglas Robinson, 2021. "ML312390771," The Macaulay Library, The Cornell Lab of Ornithology.

Figure 2. Sonogram of an Oregon Pacific Wren



Caleb Centanni's recording of a Pacific Wren at Charlton Lake, Deschutes County, Oregon from July 15, 2021. Note the peak frequency just below 8 kHz, and the harsh quality indicated by multiple pitches sounding at once.

Source: Caleb Centanni, 2021. "ML369984701," The Macaulay Library, The Cornell Lab of Ornithology.



Harney County Big Day

Article by Eric Heisey

Photograph by Mark Ludwick

A Greater Sage-Grouse was photographed at an undisclosed location.

Record count for day in the high country of southeastern Oregon

This year, I had the great pleasure of spending five months in one of the most remote parts of the lower 48 states: Fields, Oregon. I was there to study Greater Sage-Grouse as a field technician for a long-term study conducted by researchers at Oregon State University. I had only ever visited this desolate ocean of sage once before, but what little I had seen of Harney County had captured me. I hail from the agricultural desert oasis that is Washington's Yakima Valley, and I saw Harney as somewhat similar to what Yakima may have looked like two hundred years ago. So, on a whim, I decided that the "town" of Fields (population ~9!) would be a great place to call home for a summer. Plus, Sage-Grouse!

It was when I arrived in Harney County that I realized how remarkable a place it is. The largest county in Oregon and one of the largest in the United States, this massive county is home to about 7,400 people (most of whom live in Burns or Hines). For perspective, Harney County is roughly the combined size of Rhode Island, Delaware, and Maryland; states home to a cumulative 8 million people—over 1,000 times more people than Harney!

Harney is not only huge and sparsely populated, but it is also home to an array of wild habitats. Most of Harney is high desert, as most of the county is above 4,000ft of elevation. This extensive sage-dominated community gives way to the nation's largest Ponderosa pine forest in the north part of the county,

stretching further north into Grant County. Harney County is perhaps most famous among Malheur National Wildlife Refuge (NWR) birders, a fantastic wetlands complex surrounded by a sea of sage that is truly unique. More bird species are seen on this refuge than any other location in Oregon, to my knowledge, with around 350 species recorded on the refuge alone.

Above the refuge towers Steens Mountain, Oregon's seventh tallest peak, draped on its flanks by thick juniper forest and lush riparian vegetation that grow along its gushing glacial streams. The county's southern parts are still different, with the aspen groves of the Trout Creek and Pueblo mountain ranges hosting a strange array of rare plant and animal species.

This high habitat heterogeneity attracts birders to Harney in droves, especially during spring and fall migration. Harney is also renowned as perhaps the best place in Oregon to search for vagrants, lost birds that show up out of their expected range.

As one such birder, I came to Harney with the aspiration of doing a county big day, aiming to beat the county record of 160 species seen in one day. The geographic immensity of Harney makes a big day a difficult feat, as it is not easy to reach every corner of the county in a single day.

As I was planning this mad dash around the county, I had the good fortune of meeting Rick Vetter and his rockstar wife Joan Suther, Harney County's local bird aficionados. Rick and Joan

live in Burns, and both spent their careers as prominent biologists. On short notice, I talked Rick into joining me for this crazy day of birding around Harney.

Rick and I embarked on our big day in Harney County on May 13th, 2021. Unseasonably warm weather treated us to light winds, dry roads, and only a little smoke from recent prescribed burns—excellent conditions for a big day. We started our day in the Ponderosa pine forests in the north part of the county around Idlewild Campground. From there, we blasted down to Malheur NWR Headquarters for the late morning and circled back north to Burns and its surrounding agricultural fields for the afternoon. Finally, we ended our day on the south part of the refuge, birding the diverse marshes around Benson Pond and the juniper groves and riparian corridor around Page Springs Campground.

The Day Starts With Owls and Satellite

Our day began with what you might expect: a Great Horned Owl flying in front of the car just after midnight. In the mountains, owl-ing around Idlewild Campground produced Northern Saw-whet and Flammulated Owl, along with Common Poorwill. However, while we were owl-ing, I looked up and noticed something I could not explain. Luckily, Rick could: it was Elon Musk's recent satellite launch, or "satellite train" as it appeared. What a bizarre sight! After ticking off these key owls and having our minds blown by the satellite train, we took a short snooze to prepare for the long day ahead, waking up at 4:15 am for the dawn chorus around Peabody Springs.

Dawn was very active, and we added key species: Wild Turkey, Northern Pygmy-Owl, Black-backed Woodpecker, Gray, and Dusky Flycatcher, and Green-tailed Towhee here and other more common conifer forest specialties like Pygmy and White-breasted Nuthatch, Mountain Chickadee, and Hairy Woodpecker.

We then zoomed around Idlewild Campground and surrounding forest roads, adding Williamson's Sapsucker, White-headed Woodpecker, Cassin's Vireo, and Red Crossbill. One of our more active stops of the morning was where FR 31 crosses the Silvies River; Vaux's Swift, Hooded Merganser, Clark's Nutcracker, and MacGillivray's Warbler were of note. Leaving the mountains, we added Lewis's Woodpecker, Rock, and Canyon Wren, Hammond's Flycatcher, Townsend's Warbler, Bushtit, and many common species coming into Burns.

We flew through the Burns bottoms, ticking off new species, finding continuing Horned Grebes along Highway 205, we found little else of note on the way to Malheur National Wildlife Refuge headquarters. The area around headquarters was active, with many migrants and new species for the day. Highlights included Black-chinned and Rufous Hummingbird, Sharp-shinned Hawk, Downy Woodpecker, Hermit Thrush, Great-tailed Grackle, Black-headed Grosbeak, and seven species of common warblers. No vagrants, a common theme of this spring in Harney County.

On our way back north to Burns, we quickly added Burrowing Owl, Golden Eagle, Ferruginous Hawk, Sagebrush Sparrow, and Loggerhead Shrike in the shrub-steppe along Highway 205. Our first stop of consequence in Burns was at the sewage ponds, which were full of waterfowl as usual.

Nothing unusual was present here, but we appreciated the lingering singles of Ross's and Snow Goose, Red-necked Phalaropes, and expected diving ducks (Redhead, Canvasback, Lesser Scaup, Ruddy and Ring-necked Ducks) and gulls (California and Ring-billed).

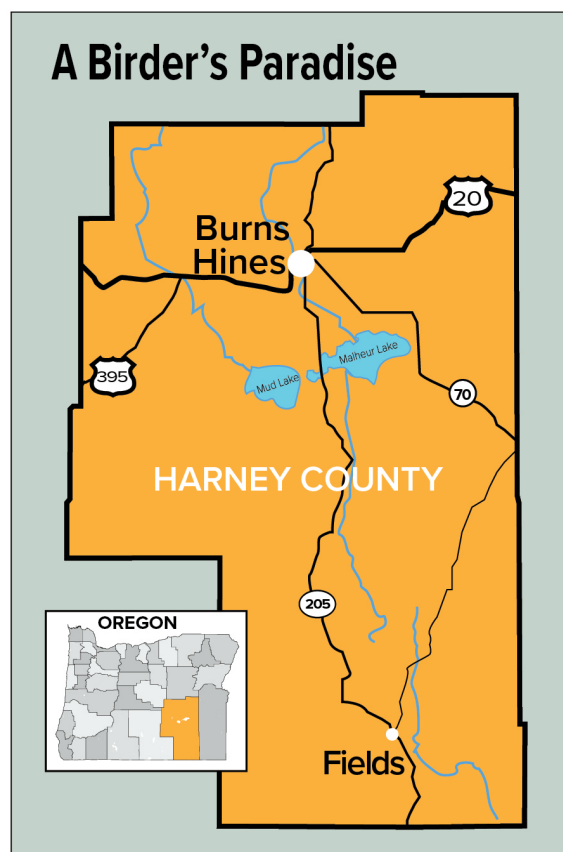
We added several day ticks around Burns, including the elusive Rock Pigeon, Lesser Goldfinch, Black-capped Chickadee, and California Scrub-Jay. It comically took us around 20 minutes to both see a Lesser Goldfinch. I heard one out of our window while driving and pulled off in pursuit, only to have a loud truck, barking dog, or some other form of municipal noise obscure the call from Rick's ears.

We got onto one eventually in a quieter neighborhood and continued again. A brief check of flooded Greenhouse Lane and the associated Potter Swamp Road produced good birds, including a pair of Blue-winged

Teal, Greater Yellowlegs, and a single Green-winged Teal.

From here, we bombed south towards Frenchglen, stopping briefly along our way to add Snowy Egret in the flooded cow pastures several miles west of Diamond. Krumbo Reservoir was our next stop, which produced few of the rare diving ducks we had been dreaming of (no Long-tailed Ducks, darn!), but handed us Chukar and a continuing Greater Scaup. Benson Pond was our next stop, where we added Forster's Tern (species #161 for the day!) and found another Horned Grebe.

Unfortunately, we spent a little too long here due to my poor time allotment. We thus had to zoom down south Central Patrol



Oregon Birds Map by Mike Williams



"Short-eared Owl" by Phil Fiddes is licensed under CC BY 2.0

Road, adding American Bittern, Black-crowned Night-Heron, Clark's Grebe, Bald Eagle, and a newly arrived Bobolink at a key breeding spot north of P Ranch, to which Rick expertly diverted us. Unfortunately, we arrived at Page Springs too late in the day and missed the expected species (below) because of it, but we added Osprey, Cooper's Hawk, and Yellow-breasted Chat.

As the sun set, we ventured back north along Central Patrol Road searching for Short-eared Owl, finding a couple along with both Tundra and Trumpeter Swans. We had somehow missed the most prominent, whitest birds in this area on our first pass, but we got them the second time along; phew!

The Short-eared Owl was our final bird of the day as we dipped on Long-eared and Western Screech-Owl. One other noteworthy species for the day was Greater Sage-Grouse at an undisclosed location.

We finished the day with 173 species! This broke the previous record of 160 species set on June 2nd, 2009, by Jay Withgott, Noah Strycker, and Tim Janzen by 13 species.

As with any big day, we had several misses. We did well in the mountains but still missed Pileated Woodpecker, Canada Jay, and Northern Goshawk, all fairly difficult to find even when not in a rush. We hit on most of our targets throughout the day and found all anticipated duck species. Shorebirds were past their peak, as we missed things like Western and Solitary Sandpiper, Dunlin, Semipalmated Plover, and other oddities.

I understand that the Narrows is also usually flooded in May in a wetter year, which hurts us in this category.

Our most noteworthy misses came particularly around Page Springs Campground, which we just arrived at about 15 minutes too late. Here we missed Black-throated Gray Warbler, Ash-throated Flycatcher, Belted Kingfisher, and Common Merganser. Bewick's Wren also evaded us on the day, an uncommon species

in Harney. Lastly, we missed Long-eared and Western Screech-Owls in the evening.


There weren't even Great Horned Owls calling in the evening, evidence that owls may have been out hunting on the warm night instead of calling. We had the territories nailed down for nearly all of these species, so we simply had bad luck. If one picked up some of these misses, along with a rarity or two (a "miss" of sorts for us, as we saw nothing unexpected on the day), the actual ceiling for a Harney County big day is somewhere around 180 species. How cool would that be?!

It was a fantastic day with good company, and a day I'll remember for a long time. Big thanks are to Rick for joining me for the day and providing crucial tips and locations for several difficult-to-find species for this newcomer to Harney County.

Thanks also should be extended to Joan Suther and Adrian Hinkle for their help in developing our route. It was a fun and exciting challenge to find many species in such a diverse and beautiful area as Harney County and was a highlight of my summer.

Author Biography

Eric Heisey is a recent graduate of the University of Guelph in southern Ontario. He majored in biodiversity and is fascinated by the natural world, especially birds. He has been involved with bird research for the past few years, most notably with the Ryan Norris lab where he conducted a thesis project investigating the environmental and demographic factors impacting the breeding phenology of Savannah Sparrows.

A close-up photograph of a Northern Waterthrush perched on a mossy branch. The bird has a brown back with a white stripe through the eye, and a breast with white spots and streaks. The background is a soft-focus green and brown underbrush.

Importance Of Rare Bird Population Information

Article by Jherime L. Kellermann

A Northern Waterthrush in the underbrush.

Photograph by Nagi Aboulenein

Geographic separation is significant to isolated breeding populations

It's 2:30 a.m. Early June. I'm trudging through knee-deep mud, hip-deep water, and shoulder-high sedges, trying not to scratch the dozen mosquito bites I got earlier in the night before the temperature dropped into the 40's.

My visual world has collapsed into the ellipse of white light from my headlamp. My ears scan the darkness beyond, tuned to an aural search image, a rhythmic rock-like clicking. But not rocks.

This sound has drawn a small ragtag team of ecologists and natural resource managers to slog through Klamath Marsh National Wildlife Refuge in the rare hours of the night. In search of a bird, a rare bird. Now the term "rare bird" may conjure different visions.

But, whether in resplendent cerulean and yellow or secretive gray and ochre, the alluring diversity of rare birds we might encounter in Oregon can reasonably be sorted into two groups.

One lies at the heart of listservs, Twitter posts, and chasers' travel itineraries. They are the year-round Easter egg hunt, the buried treasure, the unexpected diamond. Vagrants: Birds that have strayed outside their normal range, often during migration or other seasonal movements. This enticing group is not our focus today.

Instead, we consider the other category of rare birds: perhaps less adventurous or praise-worthy but far more critical to well-planned Big Days and yearly lists, citizen science, and even the conservation and ultimate evolution of species. These are the small, isolated breeding populations of birds in the state that exist separated by significant geographic expanses from the main species distribution in distant and often ecologically different realms of the continent.

Yet, like far-flung colonies, these satellite populations persist over years and decades as a predictable source of excitement, wonder, and study for bird

watchers and scientists. This expedition resulted from coordinated efforts in the spring of 2020 to renew research on the Yellow Rail (*Coturnicops noveboracensis*), one of Oregon's most secretive and elusive species, once thought extinct in the state.

Rediscovered in Klamath County in 1982 (Stern et al. 1993), considered iconic by some birders, this tiny nocturnal wetland dweller persists in just a few small populations. With the heart of its distribution in the Midwest, Oregon's population is more than a thousand miles from breeding populations in North Dakota and only slightly closer to populations of southern Alberta.

Satellite Relevance

From the perspective of wildlife management and conservation, the isolated populations in southern Oregon deserve attention. But as the potential loss of the shallow emergent carex wetland from

drought and human water use affects the habitat on which they depend, the rarity of Yellow Rails in the region makes them a regional species of conservation concern.

However, with 14% of the world's bird species threatened with extinction (IUCN 2021), I pondered the value of this and other tiny satellite populations if the species remains abundant elsewhere. As humans, we value rarity. I inherently value most wild bird populations, but is that just my bias as an avian ecologist and conservation biologist?

In the quiet darkness, stalking through the heart of Oregon's Yellow Rail domain, I asked, "What is the value of this little population of an obscure bird species so abundant in the Midwest?" Ultimately, I was asking the "so what?" question. But, as it turns out, asking this question reveals the very value of this population and answer.

Working Definitions

Before we explore this answer, we should lay down definitions for "species" and "population," as they play essential roles in our journey of inquiry. For our purposes, we will employ the Biological Species Concept, which defines a species as a group of populations whose members have the potential to "naturally" interbreed to produce viable, fertile offspring within their group.

The focus here is on reproductive barriers—basically, anything that prevents individuals from different populations from getting friendly reproductively. Many obstacles, such as temporal and behavioral, exist; geographic barriers like mountains, deserts, strip malls, or sheer distance are common and more easily conceived. Note the word potential in our definition. Individuals from different species populations could breed if they find themselves part of the same population.

A population is a group of interbreeding individuals of the same species living in the same area. The more significant a barrier is (larger mountain, bigger mall, greater distance), the more isolated a species population will be, and the less its group members will mix with other populations of the species.

So a species is a group of populations and individuals moving between some populations more than others (the interaction of populations is called metapopulation dynamics, but we'll leave that for another time). Now recall we defined species in terms of populations.

As I often tell my biology students, it's all about populations. Meaning, both evolution, and extinction occur at the scale of populations! When a population becomes so isolated that its members no longer breed with individuals from other populations, it may diverge, accumulating novel adaptive traits until eventually we, somewhat subjectively, consider it a separate species.

This realization, the process of speciation, was the genius insight of Darwin. Picture the classic case of the Hawaiian Honeycreepers, slowly diverging from the ancestral flock of Eurasian finches that first colonized and then adapted to the unique local conditions of the world's most remote islands.

Extinction is also a matter of population dynamics. A species with multiple populations do not suddenly go extinct (except in the rare cases of sudden meteoric extinction events). Instead, species go extinct one population at a time. Local extirpation, a whittling away of populations until none remain. Restoration and recovery of endangered species often seek to reverse this process by helping to re-colonize populations lost.

Let's return to my nagging question: What is the value of small, isolated breeding populations like the Yellow Rails of Oregon? I Investigated this question from two perspectives, two communities of people in the bird world that, though they significantly overlap, are also distinct. I know because I fall in the Venn diagram at the overlap of recreational birders and research scientists. So, with the help of an Oregonian birder and an evolutionary biologist from Pennsylvania, I moved my inquiry further.

I first talked with Alan Contreras, a fourth-generation Oregonian, writer, publisher, educator (with a law degree to boot), and life-long birder. A stew-

ard of Oregon's bird records for decades, Contreras is well acquainted with our state's rare birds in all their variations. He is particularly familiar with one of our state's other isolated populations, the Northern Waterthrush. He has kept track of these birds along the swift mountain waters of Salt Creek and the upper Willamette and Deschutes watersheds since the late 1970s (Contreras 1988).

Contreras has found that areas with small but reliable breeding populations benefit from what he termed "better observer value." In addition, as the only places to see rare species in the state, birders frequent these sites creating "unusually amplified coverage of these spots," which is "especially good now that eBird is a thing," Contreras notes.

Essentially, in the process of tracking down anticipated rarities and submitting their observations to databases such as eBird, birders catalog the greater bird community of these sites. For example, searches for the American Redstarts of Davis Lake yielded specifically detailed data on the montane woodpecker community of the area, Contreras pointed out. As a result, observer value has increased even further, coupled with the rise in birders' enthusiasm for county listing.

For those wishing to make accurate estimates of trends in distribution and occupancy of species' populations over time, the tendency of birders to flock to a few well-known hotspots makes for highly biased data spatially clustered, leaving many areas with few or no observations.

Birding Expands

However, with increasing numbers of birders in Oregon making a point of seeing birds in all 36 counties, the effort has become more distributed across the grid of state counties and thus more systematic.

Contreras suggests this has resulted in a clearer picture of the distribution of several other species of conservation concern, such as Pinyon Jay and Grasshopper Sparrow. Contreras also identified another tangible benefit of these isolated popu-

lations, which is as old as time, and perhaps central to the human relationship with nature and birds, “when people see something beautiful, that’s a good thing.” Echoing this sentiment is Dr. Dave Toews, an evolutionary biologist at Penn State University, whose research focuses on local adaptation and speciation of wood warblers.

Toews points out a significant asset of populations such as the Northern Waterthrush and Yellow Rail is their “interest value.” They inspire us as birders and professional scientists to ponder, to ask questions, just as I did that night at the Marsh.

Why? Why is this population here? How did it get here? How is this population different from distant populations in other, biogeographically different parts of the continent? How is it changing? Is it expanding or contracting? Should we prioritize its study and conservation? Presciently, the answers to these questions lay within the very populations themselves, information curated by their evolutionary history and embodied in their DNA.

Here we need to explore another academic rabbit hole, or birding trail, this one philosophical. The renowned mid-20th century science philosopher Karl Popper distinguished between two kinds of knowledge, which the contemporary physicist David Deutsch summarized as that with a “knowing knower” and that without. Deutsch defines knowledge as “information with causal power.”

The Knowing Knower

The human species is a “knowing knower” and possesses explanatory knowledge, which can explain the things we see in terms of things we cannot see. For example, we can explain visible light in particles and waves, which we can’t see. Likewise, we can explain why related people look similar in terms of their hidden genes.

The brilliance of Gregor Mendel, a 19th Century Augustinian monk, now known as “the Father of Genetics,” is exemplified by his discovery of the principles of hered-

ity with no knowledge of its actual mechanism: Deoxyribonucleic acid, DNA.

DNA exemplifies the later form of information with causal power. DNA possesses the knowledge but is unaware, insentient.

Every population contains a unique library of genes comprising its DNA, its gene pool. The more isolated a population, the more distinctive that knowledge held within its genome may be. Here lies the scientific, evolutionary, and conservation value of these small populations. They are bastions of knowledge, like the great libraries of antiquity with lessons to heed before a loss to the ravages of time, fire, war, and other catastrophes like extinction.

Toews suggested that it is the information content, the genetic libraries of small isolated populations, which is perhaps of most significant value. A population’s genetic tomes, when read correctly, provide a search engine of the evolution past, teaching us its unique biogeographic and evolutionary history, and perhaps most importantly, the process of local adaptation that has occurred.

Local adaptations reflect the particular conditions of an area—the climate, food resources, predators, diseases, etc.—a population has experienced over evolutionary time and can be of critical conservation value. For example, in Hawaii, low elevation populations of ‘amakihi on the Big Island show resistance to avian malaria, introduced from South America in the 19th century and their mosquito vector (Foster et al. 2007).

Evolutionary distinctiveness measures how isolated a species (or population) is, not in space but on its family tree. In other words, how far its branch is from the branch of its most closely related species. The distance is a measurement of the evolutionary history of a species’ lineage.

Traditionally, evolutionary biologists emphasized maintaining overall heterozygosity (genes with two forms of alleles) and the genetic diversity of populations. However, a distinct species or population writes more local adaptations into the DNA of its genome and the genetic functions it performs.

Recently, evolutionary distinctiveness and local adaptation have become increasingly essential metrics of population biology and bird conservation.

The Price of Extinction

How much genetic, and thus evolutionary, information is lost when a species, or a population, goes extinct? Local adaptations emphasize the importance of targeted management and conservation below the species level. Local populations of a species impact the larger structure and function of local ecological communities, ecosystem functions, and ecological processes that stabilize and maintain biodiversity.

In Canada, the Committee on the Status of Endangered Wildlife recognized the importance of conserving local populations advising the Minister of Environment and Climate Change that “the conservation of biological diversity requires that units below the species level... be considered” (COSWIC 2018, Muir et al. 2021). The Committee’s report found some solutions to species conservation problems within the very populations threatened.

Oregon’s unique satellite populations of Yellow Rail and Northern Waterthrush, along with others, may be genetic archives of valuable information on local adaptation. Still, much of it has not moved into the realm of the knowing knower.

For example, both species are moderate to long-distance migrants. Where do they winter? Do they winter with individuals from other parts of the species range? What are their migration routes?

I asked Dr. Toews what local adaptations could Oregon’s Northern Waterthrush population potentially harbor? Based on his study of wood warbler speciation, he suggested these may include unique genes associated with migration routes, nesting habitats, foraging ecology, and metabolism.

We are undoubtedly facing rapid environmental change in the Pacific Northwest, across the continent, and worldwide. Changing snowpack, drought,

and wildfire alone could significantly affect rare and common species' habitat conditions and distribution.

Conserving the information content of all bird populations is an attractive value that can unite all of us who care about wild birds. For Karl Popper, human knowledge emerges from our attempts to solve the problems we face. The critical information to build this knowledge, to enact its causal power, may lie within the unseen DNA of isolated populations of obscure and secretive little birds.

The importance of bird species and populations might be worth considering the next time you find yourself on hands-and-knees battling through impenetrable willow thickets in pursuit of a little brown bird, quietly bobbing its tail and singing to the applauding rapids of a Cascade stream.

Literature Cited

Contreras, A. "Norther Waterthrush Summer Range in Oregon." *Western Birds*, vol. 19, 1988, pp. 41–42.

"COSEWIC Guidelines for Recognizing Designatable Units." *Cosewic / Cosepac - Guidelines for Recognizing Designatable Units*, 1988, <https://www.cosewic.ca/index.php/en-ca/reports/preparing-status-reports/guidelines-recognizing-designatable-units>.

Deutsch, David. "David Deutsch on the Infinite Reach of Knowledge." *The TED Interview*, 2018, https://www.ted.com/talks/the_ted_interview_david_deutsch_on_the_infinite_reach_of_knowledge.

Foster, J.T., et al. "Genetic Structure and Evolved Malaria Resistance in Hawaiian Honeycreepers." *Molecular Ecology*, vol. 16, no. 22, 2007, pp. 4738–4746.

"IUCN 2021. The IUCN Red List of Threatened Species. Version 2021-1." *The ICUN Red List of Threatened Species*, International Union for Conservation of Nature and Natural Resources, 2021, <https://www.iucnredlist.org>.

Jetz, W., et al. "Global Distribution and Conservation of Evolutionary Distinctness in Birds." *Current Biology*, vol. 24, no. 9, 2014, pp. 919–930.



Photograph by Jherime Kellermann

Up close portrait of a Yellow Rail recently found in Oregon.

Muir, G., et al. "Assessing Biodiversity Hotspots below the Species Level in Canada Using Designatable Units." *Global Ecology and Conservation*, vol. 26, ser. e01506, 2021.

Popper, K. "Epistemology Without a Knowing Subject, Logic, Methodology and Philosophy of Science III." *Studies in Logic and the Foundations of Mathematics 52*, edited by B. Van Rootselaar and J.F. Staal, Elsevier, Amsterdam, Netherlands, 1972, pp. 333–373.

Stern, M.A., et al. "Rediscovery and Status of a Disjunct Population of Breeding Yellow Rails in Southern Oregon." *Condor*, 1993, pp. 1024–1027.

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Jherime L. Kellermann is an associate professor in the Natural Sciences Department at the Oregon Institute of Technology.

Wildfire Smoke Challenges Bird Health

Article by Olivia V. Sanderfoot
University of Washington
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I distinctly remember the first time I experienced wildfire smoke. One day in early September 2017, just a few weeks after I had moved from my hometown of Madison, WI, to begin my Ph.D. at the University of Washington, I awoke to find the sky had turned an eerie yellow-gray and my windowsills were caked in ash. I was stunned.

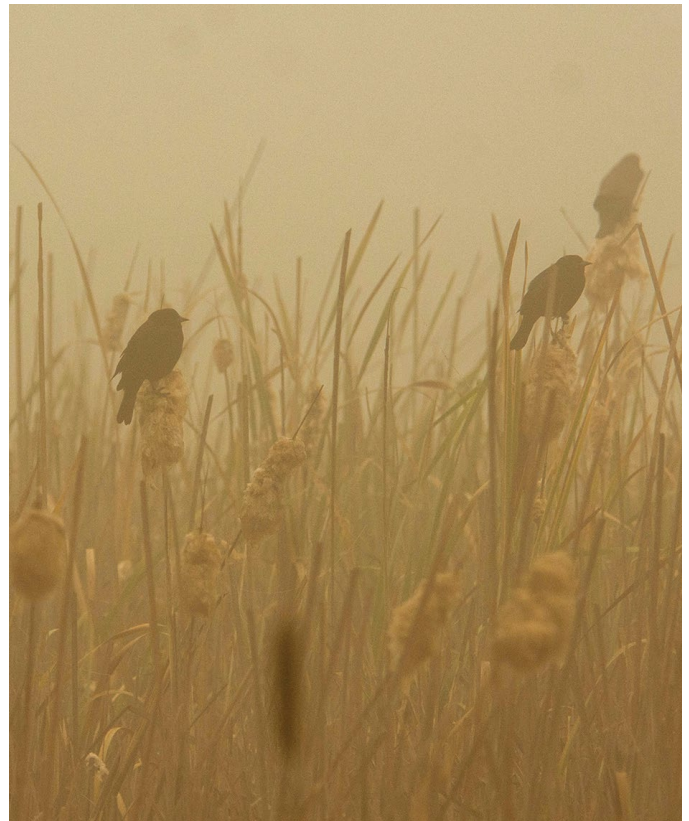
The photos of smoke events I had seen in newspapers failed to portray just how surreal it was to witness an entire city blanketed in toxic particle pollution, so dense it blocked out the sun. On my walk to campus that morning, I felt short of breath and lightheaded—the smoke was making me sick. It was a relief to finally open the doors to the air-conditioned library and take a deep breath of clean air.

Unlike us, animals cannot retreat indoors to escape the haze on smoky days, and unfortunately, we know little about the short- and long-term effects of wildfire smoke on wildlife. However, we can assume that birds are at greater risk of experiencing adverse health outcomes associated with smoke inhalation.

Birds exhibit highly efficient gas exchange, an essential adaptation to powered flight, making them more vulnerable to toxic gases. Birds may also have trouble clearing particles from their airways. Yet, few studies have explored how wildfire smoke affects the health and behavior of wild birds.

My dissertation focuses on how fine particulate matter (PM_{2.5}), a significant component of wildfire smoke and urban air pollution, impacts our observations of birds. Much of my research involves linking measurements of PM_{2.5} to records of bird observations in community science databases to determine if particle pollution affects the detection of birds.

If bird behavior is influenced by PM_{2.5}, possibly due to underlying health effects, then I would expect that as PM_{2.5} increases, our observations of birds will change. For example, if birds vocalize less or seek refuge when air quality is hazardous, it could be less likely that we will observe them on smoky days. However, we could be more likely to observe birds when it is smoky if they alter their behavior, making them more noticeable, such as flying faster or congregating in large groups.



Photograph by Joshua Little

Red-winged Blackbirds in a smoky field.

I recently led a study investigating this hypothesis, which was published this summer in *Ornithological Applications*. This study tested whether PM_{2.5} had a statistically significant effect on the probability of observing 71 bird species in Washington state during the wildfire season (July–September) in 2015–2018. We found that PM_{2.5} influenced the detection of 37% of study species, including waterbirds, raptors, and songbirds. In addition, PM_{2.5} was negatively related to observing 16 species and positively associated with the probability of observing ten species.

These findings suggest that the effect of PM_{2.5} was not solely due to adverse impacts of haze on human observers, such as health effects or impaired visibility. They, therefore, support the hypothesis that birds exhibit species-specific behavioral responses that affect our observations of them in the wild.

This highlights an urgent need to rapidly expand our knowledge of how smoke affects the health and behavior of birds and other wildlife and also illustrates the value of community science data in meeting that challenge.

I look forward to continuing this important research as part of my dissertation at the University of Washington and sharing my results with bird enthusiasts across the Pacific Northwest. As we continue to navigate yet another intense smoke season, I encourage birders to contact me if they have observations to share that could help us develop hypotheses to test in future studies. Please email me at oliviavs@uw.edu.

OBA Merchandise Updates



Adult Hooded Sweatshirt

New OBA Apparel Now Available

We are excited to announce that we have completely revamped our apparel offerings.

Check out the Oregon Birding Association's online shop to view our new clothing and other OBA items. You can visit the "Marketplace" page listed under the "About OBA" tab on our website at oregonbirding.org/marketplace/.

We have T-shirts, tank tops, sweaters, hoodies, coffee mugs, stickers, magnets, and more, all featuring our logo. There are various colors and styles to choose from, so there is something to satisfy every taste! Profits from merchandise sales fund grants for ornithological projects around the state.

If you're wearing your new gear out in the field we would love to see it! Share your photo to Facebook or Instagram and tag us. We would love to reshare them.

Currently, OBA hats are not available on Threadless, but we will add them to the shop soon.

Please note that all products are created when you order and fulfilled by Threadless. If you have a question about your order or need to return an item, reply to your confirmation email from Threadless.



Adult
Hooded
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Adult
T-Shirt



Child
T-Shirt



Adult
Tank

Oregon Birds

The Journal of Oregon Birding and Field Ornithology

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Oregon Birds is a publication of the Oregon Birding Association, a 501(c)(3) nonprofit organization. Two issues are produced each year: A year-in-review spring issue and a fall issue with articles about birds and birding. Contributions are welcome. Please contact the OBA for submission information and requirements.

On the Back Cover

A Short-eared Owl in the Willamette Valley, photographed in March 2021. Photograph by Karen Rush

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OBA believes that birding is for everyone, and works to serve the Oregon birding community and promote the enjoyment, knowledge, and conservation of birds through education, science, and shared birding experiences.

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Membership Dues

21 and under	\$21
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Oregon Birds

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