

COLUMBIA LAND TRUST

# Fieldbook

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Conserving and caring for the vital lands, waters, and wildlife of the Columbia River region through sound science and strong relationships.

## Species Spotlight:

Lewis's Woodpecker  
(*Melanerpes lewis*)

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Columbia Land Trust conserves and cares for the vital lands, waters, and wildlife of the Columbia River region through sound science and strong relationships.

Columbia Land Trust has earned accreditation from the Land Trust Alliance, which recognizes land trusts that adhere to national standards for excellence, uphold the public trust with rigorous ethical standards, and take steps to ensure that conservation efforts are permanent.



Cover photo: Lewis's woodpecker taking flight. By Linda Steider/Steider Studios  
Inside cover: Lupine at Mill Creek Ridge



Plant a Seed With a Planned Gift

On morning walks through my SE Portland neighborhood, the familiar trill of the song sparrow lifts my heart. A flicker pounds away on the metal flue atop the neighbor's chimney. The linden tree down the block buzzes with bees. These everyday connections with nature are a balm for the soul in a sometimes chaotic world.

While these days we at Columbia Land Trust find ourselves with incredible opportunities to protect entire watersheds and thousands of acres of forest, we have always valued even the smallest of green spaces. One of our first project sites measured

only 0.3 acres and lay wedged between a railroad track and the Columbia River in Vancouver!

Today, our Backyard Habitat Certification Program, which we co-manage with Portland Audubon, is a great example of the significant impact that many small choices can have. With 9,000 individual sites enrolled, this program improves more than 2,000 acres of habitat across the metro area—to the benefit of both wildlife and people (see page 5 for a profile of BHCP's incredible team).

This year the Land Trust is on the cusp of some of our biggest, most ambitious conservation projects yet—projects we could have scarcely dreamt about thirty years ago! But we will all need to pull together to make these dreams a reality. One of the most powerful (and often forgotten) ways you can help set us up for success, this year and long into the future, is to include Columbia Land Trust in your will or estate plans. Bequests and planned gifts play a critical role in ensuring we can conserve and care for these lands in perpetuity. Think of it as planting a seed that, with patience, will eventually grow into a majestic tree.

At this critical juncture for our organization, we have set ourselves the goal of securing 20 planned gifts this year. Meeting this goal would allow us to conserve additional lands that we otherwise could not. **Will you be one of those 20 committed supporters?**

As we welcome spring in the Pacific Northwest and you perhaps prepare for some outdoor summer adventures, I encourage you to think about our treasured landscapes and the actions, large or small, that you can take to help protect them. If you're interested in learning more or would like to help, I invite you to give me a call at (360) 606-6071.

Thank you for being a part of our work, and for joining us in taking the individual steps that create powerful, collective impact.

**Glenn Lamb**, Executive Director

“We are on the cusp of some of our biggest, most ambitious conservation projects yet—projects we could have scarcely dreamt about thirty years ago!”



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# Beavers Build Resilient Watersheds

The Wishpush Working Group Envisions an Abundant Beaver Population

BY KELSEY FARABEE

**B**eaver (*Castor canadensis*) is a keystone species across North America. “Beavers are ecosystem engineers,” explains Jeanette Burkhardt, a watershed planner with Yakama Nation Fisheries who has been interested in how beavers benefit watersheds for several years. “Through their daily activities, they alter the landscape and create habitat for other species including fish (they benefit all life stages of salmonids), aquatic animals, and birds. They are also important prey for carnivores,” she said.

“I have seen beavers take up residence and alter really varied landscapes, from desert creeks to powerful rivers,” shared Burkhardt. “They never cease to amaze me with their adaptability and industriousness. I remember I once visited a riparian restoration project Yakama Nation Fisheries had recently completed, and the beavers had moved right in and already begun chewing vegetation and excavating foraging channels. That felt like a real seal of approval!”

Burkhardt is also a leader of the Wishpush Working Group which is working to retain, restore, and re-home beavers in the Yakama Nation’s

Southern Territories which include the Wind, White Salmon, Klickitat, and Rock Creek watersheds. The group envisions abundant beaver populations creating healthier and more resilient watersheds for the benefit of fish, wildlife, and humans.

The name of the working group, wish-push (or wishpoosh), comes from the word for beaver in Yakama creation stories. “Columbia River Tribes believe that animals took care of these lands long before humans lived here,” explained Elaine Harvey, Hydro Systems Oversight Coordinator with Yakama Nation Fisheries and Columbia Land Trust board member. “The beaver is a caretaker, responsible for the water and animals that live in rivers. They regulate water flow throughout the year which benefits the entire landscape.”

As climate change leads to increased frequency and strength of wildfires, the work of beavers can have significant beneficial impacts. Wet beaver meadows can function as fire breaks and shield plants and animals from high-intensity burning, and beaver dams have been shown to reduce the power of

“The beaver is a caretaker, responsible for the water and animals that live in rivers. They regulate water flow throughout the year which benefits the entire landscape.”

**Elaine Harvey**  
*Hydro Systems Oversight Coordinator with Yakama Nation Fisheries and Columbia Land Trust board member*



Backed up water behind a beaver dam spreads across the surrounding landscape, creating complex side channels that support fish habitat and seeping into the ground, refilling underground aquifers.

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runoff and filter out sediment that fills rivers and streams after a wildfire.

The Wishpush Working Group originated in 2018 as a collective of natural resource managers that came together to examine beaver populations in the East Cascades and plan strategies to retain and grow beaver populations for the many ecological benefits they provide. While the group has grown into a broader coalition, the core steering committee remains Mount Adams Resource Stewards, Yakama Nation Fisheries, and the Mid-Columbia Fisheries Enhancement Group.

Columbia Land Trust is drawing on modeling work and technical support offered by the working group to inform stewardship plans for more than 8,000 acres of recently conserved habitat on the upper Klickitat River. “Beaver activity has been documented as a factor in moderating fire intensity and creating a refuge for wildlife during wildfires,” says Land Trust Natural Area Manager Lindsay Cornelius. “We are going to be using a beaver restoration assessment tool at our Bear Creek Natural Area, where we’re also planning to collaborate with the Yakama Nation and Washington Department of Natural Resources on prescribed fire and fuel reduction treatments. I’m excited to

explore the potential of incorporating beaver reintroduction into our restoration plans.”

Adept swimmers but awkward on land, beavers build dams and foraging channels to create deep water where they can navigate easily, access food sources, and avoid predation. This backed up water then spreads across the surrounding landscape, creating complex side channels that support fish habitat and seeping into the ground, refilling underground aquifers. Beaver complexes can also act as water filters, trapping sediment and filtering out toxins to improve downstream water quality, in addition to slowing spring runoff, which buffers the impact of flooding and drought.

“In arid environments with dry summers like the East Cascades, it is important to have sources of water that contribute to streamflow during the warm summer months, especially in the climate scenarios we are seeing where there is less snowpack in the future,” said Burkhardt. “Beaver complexes can act as this type of water source to some degree, like a sponge that soaks up water when it is abundant and slowly releases it later.”

- a | Photo by Jen Vanderhoof/Beavers Northwest
- b | Photo courtesy of Yakama Nation Fisheries
- c | Photo by Jen Vanderhoof/Beavers Northwest

## BEAVER FAST FACTS

- The beaver is one of the few species that significantly modifies its environment.
- Beavers are the largest rodents in the U.S. Fully grown they can measure two to three feet long. Adults beavers can weigh between 60-100 pounds.
- They have waterproof fur, webbed hind feet, dexterous front feet, and teeth that grow continuously throughout their lives.
- Beavers use their scaly tails as a rudder, to balance, and to slap as an alarm call.
- Beavers are herbivores, eating tree bark, roots, and wetland plants.
- Beaver moms have two to three kits a year. Young beavers leave the family lodge when they are about two years old to find a mate and a home of their own.
- Beavers are social mammals and habitat connectivity is essential.





Tools like beaver deceivers are used to keep beavers from blocking a culvert or other infrastructure.

d |

## BEAVERS ACROSS OUR ECOREGIONSS

Columbia Land Trust is working with the Cowlitz Indian Tribe to assess beaver re-introduction opportunities on conserved lands near Mount St Helens.

Intertidal floodplain restoration projects in the Columbia River Estuary include beaver starter structures to facilitate beaver damming in newly constructed tidal channels. We have found hundreds of juvenile coho salmon feeding and rearing behind even small beaver structures in tidal channels.

We manage and replace infrastructure like culverts and roads on and around conservation lands to reduce beaver and human conflict.

The Land Trust plants willows and other species in our wetland and riparian projects knowing that beavers will forage on them. We anticipate this, and tend to over-plant to achieve our habitat goals, which include thriving beaver populations.

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Beaver populations in North America, including Oregon and Washington, were decimated by the colonial fur trade in the 1800's when Euro-American settlers trapped them nearly to extinction. It is roughly estimated that there used to be as many as 100-200 million beavers in North America. Estimates put the current population around 10-15 million, only one tenth as abundant as they were pre-European settlement. "The removal and continued scarcity of beavers has had a drastic impact on the shape and health of western watersheds," said Burkhardt.

Beavers continue to face immediate threats. As more humans move into prime beaver habitat, conflict with human infrastructure increases when beavers fell trees and their dams flood roads and block culverts and irrigation ditches. "There is room for improvement in terms of awareness of the benefits that beavers bring to ecosystems," said Burkhardt. "They should not be considered a pest or a nuisance species. There is a lot of misinformation out there and there is a growing set of tools to mitigate for their impacts on the human environment." Climate change—and the habitat degradation and fragmentation it brings—is another threat to beaver populations.

Despite these challenges, Burkhardt and the working group are hopeful. There is increasing awareness that beavers are crucial to watershed health,

that they improve hydrology, build resilience, and can mitigate the impacts of climate change and wildfire damage. "It's quite exciting—new working groups focused on beaver conservation are popping up all over the place," she said. "It's not new work but there is increasing interest. Some conservation organizations are even using human-made structures that mimic beavers' work as a fish habitat restoration tool."

Though not as functional as authentic beaver dams (which beavers diligently maintain!), these analogs are useful in locations where unpredictable beaver activity may be less tolerated by neighbors or where ponding might interfere with public infrastructure like roads and culverts.

The working group is in the process of building out resources and support services to help landowners coexist with beavers. These tools include things like beaver deceivers and pond levelers; technologies that keep beavers from blocking culverts and other outlets while still allowing water flow, which can allow the beavers to remain while minimizing infrastructure damage. The Wishpush group is also setting up a beaver "hotel"—a temporary holding facility for beavers and beaver families that need relocation—and creating a database of suitable habitat locations where they could potentially re-home beavers, like Columbia Land Trust's Bear Creek Natural Area.

"I'm excited to continue gathering information from the community," said Burkhardt, "and there are lots of educational opportunities. Beavers themselves are a hopeful beacon in difficult times, with their ability to restore watersheds, increase biodiversity, and create oases during wildfires." 🍄

d | A 'beaver deceiver' in the Washougal River watershed

e | Photo by Jen Vanderhoof/Beavers Northwest

## The People Behind the Backyard Habitat Certification Program

Helping Urban and Suburban Gardeners Create Natural Habitats for Wildlife

Rachael



Megan



Victor



Susie



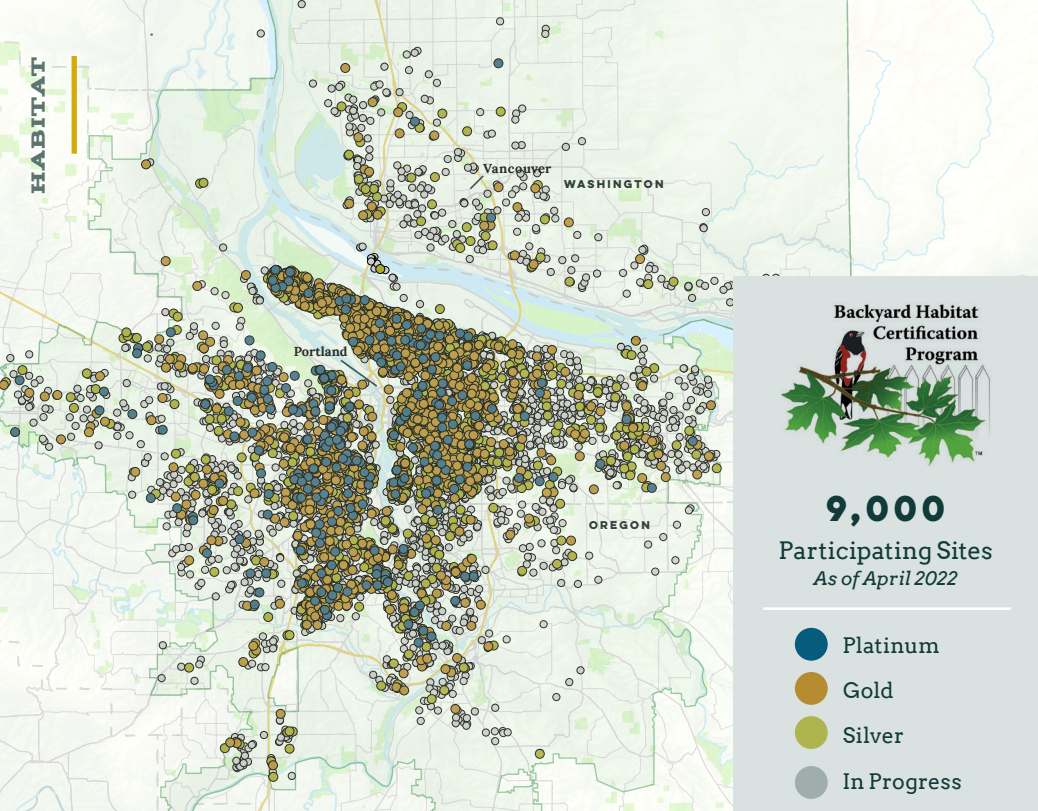
The Backyard Habitat Certification Program (BHCP), co-managed by Portland Audubon and Columbia Land Trust, enrolled 1,645 new yards or greenspaces in 2021 and now has nearly 9,000 participants across four counties: Clackamas, Multnomah, and Washington counties in Oregon and Clark County in Washington. Together these community members care for more than 2,000 acres, focusing on five key elements: planting native plants, removing noxious weeds, reducing pesticide use, managing storm water, and stewarding wildlife.

BHCP aims to bring people together to create resilient wildlife habitats and landscapes, while also fostering a sense of community. Individuals, apartments, businesses, schools,

places of worship, and community organizations are all encouraged to participate. Collectively, the actions taken by program participants have a significant impact on the quality of air and water throughout our region, improve habitat for urban wildlife, and provide physical and mental health benefits to our local communities.

Read on to learn about the Backyard Habitat staff members who, along with 11 technicians and more than 80 volunteers, are helping gardeners transform the Portland-Vancouver metro region, one yard or greenspace at a time!





## JP

### Program Coordinator

*started with BHCP in 2017*

As Program Coordinator, JP divides his time between work areas ranging from coordinating volunteers for certification visits, work parties, and data entry, to supporting BHCP's diversity, equity, and inclusion work. He also interacts with participants and assists with administrative projects like pulling database reports and managing website content.

"My worries about climate change and the future are lessened by all the wonderful work organizations like Columbia Land Trust and Portland Audubon are doing in our region," said JP. "Seeing devoted gardeners who share my enthusiasm for protecting nature gives me hope for a better tomorrow."

### What's your favorite part of your work?

Knowing that we are making a difference in the natural world. I also like the diversity of tasks and the people I work with—from coworkers, technicians, and volunteers, to our wonderful program participants.

### What's something you want people to know about BHCP?

We don't hate cats or non-native plants!

## Susie

### Program Co-Manager

*started with BHCP in 2016*

Susie balances strategic planning and fiscal management with day-to-day program support. She oversees the enrollment and site visit processes, manages a team of nine habitat technicians, coordinates with sponsors, and leads projects with community partners.

"There's so much I love about my job," said Susie. "It's a true gift to work with caring and passionate people who want to do what is best for the people, plants, and animals of our region. Many people feel a sense of responsibility to nature. They find joy in having birds and other wildlife around, and they want to create habitat that supports these creatures."

Susie also manages outreach efforts in Clackamas and Clark counties, which involves working closely with partners at Friends of Tryon Creek and the Watershed Alliance. "We want to engage

as many people as possible," she said. "You don't need any gardening experience, we are here to get you started."

### What do you like to do outside of work?

Susie loves spending time outside, hanging out with trees, plants, and friends. She is fascinated by the history of the Northwest—which has been a hub of life for humans and animals for tens of thousands of years—and how different cultures practice caring for the Earth. "There are ways of knowing that existed pre-colonization and continue to this day; ways that have a deep respect for the land," she said. "It's amazing how much collective ecological knowledge there is."

## Megan

### Program Co-Manager

*started with BHCP in 2019*

Megan balances many responsibilities in her role as Co-Manager. Some of her key tasks including working with community and agency partners (like Metro and watershed districts), fundraising work, and listening to feedback about how to make the program better and more equitable, inclusive, and diverse.

"The best part of my job, is when people share with me that the program has changed their life and how they view the world!" said Megan. "Having a job that specifically involves connecting with a diversity of people and the diverse natural world we all live within is incredibly rewarding. I love supporting people in their efforts to create habitat, benefit wildlife, and support each other."

Megan also strives for balance outside of work. "I love to be outside enjoying my own backyard habitat and exploring the natural world by foot, paddleboard, and snowshoe," she said. "I also love to be cozy and curled up inside, enjoying a good book, a podcast, board game, or meal."

### What's something you want people to know about BHCP?

Two things! One, that BHCP works with all sorts of sites, not just single-family residential yards. Second, your yard or greenspace can be in any condition when you enroll. We provide lots of support, so even if you don't have any plants in your yard and you've never gardened before, you can start to create habitat!

## Victor

### Community Coordinator

*started with BHCP in 2022*

The newest member of the team, Victor joined Backyard Habitat this spring as Community Coordinator and will be co-leading projects with existing community partners including APANO, Centro Cultural, Hacienda CDC, Verde, and the Community Engagement Liaisons, as well as leading outreach and education initiatives and engaging new community partners to support habitat creation efforts.

Victor's favorite native animal is the northern spotted owl (*Strix occidentalis caurina*). "They quickly became one of my favorites because of their beautiful feathers and curious nature," he said. "I love working with animals and I have a red-footed tortoise named Poppy, as well as an adventurous cat and two twin poodles!"

### Why are you excited about joining the BHCP team?

I look forward to continuing my conservation career and working to create true inclusivity and equity for BIPOC communities within the conservation world.

f | Program participants celebrate certification at a community site overlooking the Willamette River where a group of volunteers maintain extensive native plantings

## Rachael

### Contracts Coordinator

*started with BHCP in 2019*

Similar to others on the Backyard Habitat team, Rachael's job varies from day to day. You might find her assigning sites to habitat technicians, creating quarterly reports for funders, designing the annual native plant coupon flyer and other visual materials, or organizing the program database.

"We live in a world dominated by humans and it feels good knowing we are restoring some balance by promoting practices that help create spaces that are mutually beneficial for humans and animals alike," said Rachael. "I love seeing how much the program has grown, especially on my side of the bridge in Clark County."

Rachael finds hope in the powerful collective impact made by Backyard Habitat participants and the program's continued growth. "It can be incredibly overwhelming to think about all the challenges the world faces," she said. "It's easy to be left wondering what difference one person can make, but choosing to garden sustainably and garden for wildlife matters, especially when you consider the cumulative impact."

### What's something you want people to know about BHCP?

When processing new enrollments, I often see comments like "I want to turn my garden into a haven for hummingbirds, but not crows" or "I want to create habitat for butterflies and bees, but I don't like squirrels." I wish more people understood that animals are here with us, not for us. Creating habitat at home ultimately attracts a variety of animals, not only the ones you may "like", and that's a good thing! Many animals often labeled as pests play an important role in the ecosystem and they have just as much of a need for habitat as the animals that people look forward to seeing in their yards. 🌿



## INTERESTED IN STARTING A BACKYARD HABITAT?

The Backyard Habitat Certification Program serves residential yards smaller than one acre, and community sites of any size, throughout much of Clackamas, Multnomah and Washington counties in Oregon and in Clark County, Washington.

There is a one-time, sliding scale sign-up fee. After enrolling, a BHCP habitat technician will visit your yard or greenspace and provide personalized recommendations. BHCP participants receive tons of gardening resources, as well as discounts at local native plant nurseries.

Participants then work at their own pace to plant native plants, remove damaging weeds, and transition to eco-friendly gardening practices. When ready, a volunteer revisits to certify your site at one of three certification levels: silver, gold, or platinum.

**Enroll at:**  
**BackyardHabitats.org**

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# DONOR SPOTLIGHT

Gary Hahn



“I support the Land Trust because it’s so very important to preserve these landscapes for the future generations and to prevent unchecked development.”

Gary Hahn

g | Gary Hahn and his dog Hiya

Opportunity is knocking! Gary Hahn, and his environmental consulting firm Hahn and Associates, Inc., are longtime supporters of Columbia Land Trust, and this year he generously announced his intention to make a \$50,000 matching gift. To celebrate this, we’re excited to share a bit about Hahn and his interest in conservation.

**H**ahn moved to Portland in 1979, after visiting from Ohio and falling in love with the region, in large part because of the incredible nature. “I decided I really wanted to live there, and it took six or seven years to make it happen,” he said.

With an education in geology and chemistry, he took a job at the Oregon Department of Environmental Quality and then after working a few other jobs, started his own environmental consulting company in 1987.

Hahn’s background in geology means that his interest in the history of the region is not limited to recent human history, but includes the much longer geologic history, like the massive Missoula floods that shaped the landscape of the entire Northwest during the most recent ice age.

“I am a huge fan of the Columbia Gorge,” said Hahn. “It is a major part of the richness of living here. I’ve explored much of it on a bike and through hiking, and even driving through it, the views are incredible and the scale is huge.”

Hahn met Land Trust Executive Director Glenn Lamb through coworkers more than 20 years ago, when Lamb was working for Vancouver Parks & Recreation. The two stayed in touch, taking canoe trips together on the Willamette River, and over time Hahn became familiar with the work and vision of the Land Trust and began making regular donations.

“I’ve supported many nonprofits for a long time,” Hahn said “but I decided I wanted to make a larger impact and to focus my giving on a smaller number of organizations, one of which is Columbia Land Trust. I support the Land Trust because it’s so very important to preserve these landscapes for the future generations and to prevent unchecked development.”

With Lamb transitioning out of his role as Executive Director this year, Hahn sees a special opportunity to use this matching gift as an opportunity to honor Lamb. He hopes that you will consider your donations this year as a thank you to Glenn for his friendship and years of service to nature. 🌿

# SPECIES SPOTLIGHT

Lewis’s Woodpecker  
(*Melanerpes lewis*)



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## IDENTIFICATION

The Lewis’s woodpecker is a unique species of woodpecker with distinctive coloring; a pink belly, gray collar, and dark green back. Found across western North America, they are relatively uncommon and have seen a notable population decline over the last 40 years.

h | Photo by Linda Steider/Steider Studios

Though somewhat nomadic and unpredictable in terms of location, they are strongly associated with oak woodlands, and can be found east of the Cascades in Oregon and Washington. (It is also the bird in the East Cascades Oak Partnership logo!)

In today’s English lexicon the species is named for Meriweather Lewis, who noted the bird on his 1803 expedition with William Clark.

## LIFE

The diet of a Lewis’s woodpecker consists mainly of insects, nuts, and fruit. They are distinct from other woodpeckers in that they primarily glean insects from the bark of trees or flycatch in the air, rather than drill for wood-boring insects. In the summer, they forage by watching from perches like bare branches and fence posts before taking flight to grab insects midair, making forests with relatively open canopies essential for feeding. In the fall they harvest acorns and other nuts, smash them into pieces, and store them in crevices and holes in trees to eat throughout the winter. Lewis’s woodpeckers are more selective in their knocking than other woodpeckers, but males will drum on trees during courtship. Like most woodpeckers, their hatchlings are born without a single down feather – completely in the nude.

## STATUS

The Lewis’s woodpecker is a priority species for conservation in both Oregon and Washington. It is a federal species of concern that is threatened by changing forest conditions, a lack of forest age diversity, and loss of habitat.

These woodpeckers often use snags of dead or burned trees for nesting, and have been seen regularly along the lower Klickitat River, particularly where intact white oak woodland and large old conifer snags are both present.

Land Trust conservation and stewardship efforts in the Klickitat watershed seek to protect habitat from land conversion and manage for the mature mixed oak and pine forests on which Lewis’s woodpeckers rely. 🌿





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# Wild Splendor



This past winter we were thrilled to gather again on our Wild Splendor tours. What better way to reconvene than to witness nature first-hand? In total, we hosted 12 days of tours over three months, welcoming more than 300 supporters to two locations in Vancouver, Washington to view chum salmon and sandhill crane migration.

We could not have done this without the generous support of our Wild Splendor sponsors.

Photo by Ryan Murphy

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