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SERVING BENTON COUNTY SINCE 1956

Horizons

2018-2019 Annual Report



Come Fly With Us!

What's your most indelible memory of birds? Perhaps you've witnessed the silent glide of the majestic great horned owl at dusk or watched an osprey plunge from on high into the Willamette River, pulling up a wriggling fish in its talons. From the dazzling display of a flock in murmuration, to the acrobatics of a raven trying to impress its mate, most of us have a favorite "wow moment" when it comes to birds. In addition to their aesthetic appeal, birds are helpful. Here is a partial list of services we can be thankful for:

- Control pests** - birds eat millions of tons of insects every year including mosquitoes and agricultural pests.
- Pollinate plants** - some of our most important foods and plant-based medicines are pollinated by birds.
- Scavenge efficiently** - it's estimated that a single vulture provides \$11,600 in waste disposal services over its lifetime.
- Disperse seeds** - birds aid in plant propagation by flying to new areas and leaving seeds behind.
- Balance landscapes** - birds improve ecosystem health in forests, grasslands, and other habitats by helping to maintain the balance between herbivores and plants.
- Inspire technology** - birds have long inspired scientists, engineers, and entrepreneurs. Flight strategy, shock absorber design, hover power, and drone and robot engineering are just a few of the ways birds inform new technologies.
- Reduce stress** - hearing bird song may even provide psychological benefits like increased focus and productivity, improved mood, and reduced stress. Some hospitals now play birdsong in their corridors to help patients relax.

A recent study¹ discovered that bird populations in the U.S. and Canada have dropped by 29% since 1970. Habitat loss plays a significant role in the decline of bird populations. Species that breed in grasslands have suffered the greatest declines - over 50%. Birds need our help! Here is a partial list of ways we can help our fine feathered friends:

- Conserve and Restore Native Habitats** - In your yard and community, choose native plants and create corridors of natural areas. Native plants are also great for insects, a critical food source for many bird species.
- Reduce or Eliminate Chemical Usage** - Even in situations where chemicals are the best option, seasonal timing and proper application rates help reduce adverse impacts on birds, insects, and water supplies.
- Make Windows Safer** - Building collisions kill up to 1 billion birds a year in North America alone. Lighted windows attract birds at night, and daytime reflections encourage birds to fly into them.
- Keep Cats Indoors** - Keep cats inside for their wellbeing and that of the birds.
- Make Bird-Friendly Purchases** - Shade-grown coffee, grass-fed meat, and lumber certified by the Forest Stewardship Council are great places to start!
- Share Your Love of Birds with Children** - Whether you watch backyard birds with a young person you love, or volunteer for an education program like Unidos por las Aves, you can inspire the next generation of conservationists.

The Benton SWCD programs and activities highlighted on the following pages offer opportunities for you to help our feathered friends. It's a win-win, please join us!

—Holly Crosson, Executive Director

1. www.sciencemag.org/news/2019/09/three-billion-north-american-birds-have-vanished-1970-surveys-show

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Birds: Connecting Communities Within and Across Watersheds

Monday, January 13th
6:30 to 8:30 PM
Corvallis-Benton County Public Library
Refreshments provided

Please join us for an exploration of how birds connect us across land ownerships, habitats, and international borders.



Presenter
Gregor Yanega
Forest Stewards Guild

Topic
Big Picture, Little Birds: Finding common ground for people, wildlife, and forests

Tara Davis
Twinning Coordinator

Willamette-Laja Twinning Partnership:
Unidos por las Aves (United by the Birds)

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Upcoming Events

- 1/13** BSWCD Annual Meeting: Birds - Connecting Communities Within and Across Watersheds
- 2/1** Native Plant Sale Pre-order Pick-up Day.
****NO MARKET THIS YEAR!****
- 2/8** Nutrient Management Workshop for Diversified Vegetable Growers

Thank you, Dr. Hall!

After 17 years, Dr. Clifford Hall stepped down from the BSWCD Board in 2019. Learn about Cliff's enduring conservation work on our blog, www.bentonswcd.org/cliff-hall/.

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Birds need connectivity



Connectivity refers to the ability of a species to move between habitat patches. Travel for many bird species becomes dangerous where there are disruptions to habitat connectivity. Corridors and crossings enable migration, (re)colonization and breeding opportunities. With more connectivity between wildlife communities, ecosystems will remain healthy and diverse in the types and numbers of species they can support.



Willow Flycatcher
Scientific Name
Empidonax traillii
Size
 13-17 cm
Habitats
 Breeds in thickets near streams, woodland edges. Winters in tropics near clearings and second growth.
Preferred Diet
 Insects including wasps, bees, winged ants, beetles, flies, caterpillars, moths, true bugs, and others. Also eats some spiders, a few berries, and possibly some seeds.
Nesting Style
 Nests in shrubby areas with standing water or along streams.
Fun Fact
 Flycatchers don't learn their song, a sneaky fitz-bew, from their parents, as many other birds do. Instead flycatchers hatch knowing their songs.

Photo: Keith Kohl, ODFW

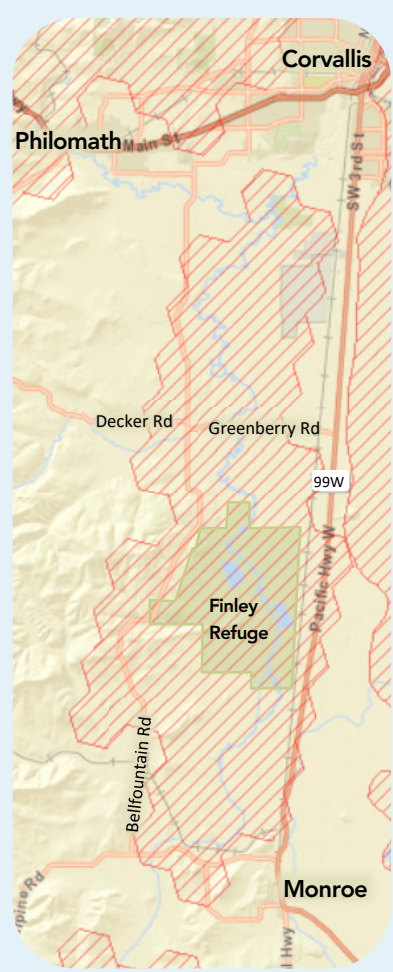
Habitat Restoration Fosters Connectivity

With nine of the ten largest cities in Oregon, the Willamette Valley is the most urban and fastest-growing eco-region in Oregon. About 96% of the Willamette Valley is privately owned, which presents challenges to wildlife management. Loss of habitat due to invasive species encroachment, agricultural, and urban development is leading to sharp declines in local and regional avian species types and abundance. As sources of food, water, and cover, these habitats are also important to terrestrial wildlife.

We work with many Benton County rural landowners to improve wildlife habitat on their property. We try to work on a larger scale to incorporate numerous landowners whose lands are contiguous to each other to provide corridors or travel routes for birds and other wildlife. The goal is to provide all four needs for birds on one property, but perhaps a neighbor could provide water, another neighbor might work on cover, food, or nesting spots. Another might provide a hedgerow along a fence line to protect wildlife while moving from one habitat to another. Like a quilt, we incorporate parts of the whole to create a mosaic of connected habitats.

Oregon Department of Fish and Wildlife has designated the area in and around Muddy Creek, between Monroe and Corvallis, as a Conservation Opportunity Area due to its significant oak and prairie habitats. Riparian vegetation associated with Muddy Creek provides high value fish and wildlife habitat. Benton SWCD has been working with a landowner in the past few years to restore 100 acres of a patchwork of diverse habitat types. This property, adjacent to two Natural Resources Conservation Services' Wetland Reserve Program properties, is the tenth landowner downstream of the Willamette Valley Finley National Wildlife Refuge to have enrolled in a ten-year agreement through US Fish and Wildlife's Partners for Fish and Wildlife Program. Through the assistance of many partners, private landowners are providing much needed corridors of wildlife habitat.

—Donna Schmitz, Resource Conservationist



Muddy Creek from Corvallis to Monroe. Shaded area = ODFW Conservation Opportunity Area.

Birds need food



Nourishment for birds should come primarily from natural food sources such as native plants and the great diversity of invertebrates they support. Caterpillars are a vital source of protein for birds, especially during the breeding season, so minimize pesticide use. Select many species of trees, shrubs, and flowers, and plant single-species clusters to help with foraging efficiency. Regularly maintained feeders should only be supplied to complement birds' natural diets.

Native Plant Program: Focus on Birds!

Every couple of years, BSWCD chooses a new theme for our native plant program. You may be familiar with our pollinator outreach (Bee Buddies) and our recent emphasis on prairies and meadowscaping. Now we are switching gears to focus on all the ways we can support birds. Over the next two years, we'll be developing informative brochures, sharing bird-friendly garden plans, and coordinating talks and tours to help you give birds what they need.

Birds need four basic things: water, cover, nest sites, and food. Native plants co-evolved with our native insects and birds, so **growing native** is an excellent way to support them! Benton SWCD provides gorgeous, multi-functional native plants through our fall and winter native plant sales. Insects are a vital source of protein for many birds, especially during breeding season. Provide for insects to provide for birds with these native plants: oak, willow, maple, goldenrod, milkweed, and asters. Round out your landscape with these species: bleeding heart, blue blossom, Douglas spirea, Oregon grape, red flowering currant, salal, snowberry, and yarrow.

It's not too late to purchase native plants online to be picked up on February 1, 2020. View the catalog at www.bentonswcd.org/programs/plant-sale/native-plants-catalog/. We offer a 35% discount for riparian plantings, orders over \$400, and education projects. Contact the District to apply!

—Heath Keirstead, Communications & Community Engagement Manager



Black-throated Gray Warbler
Scientific Name
Setophaga nigrescens
Size
 11-13 cm
Habitats
 Dry oak slopes, conifer, and open mixed woods.
Preferred Diet
 Mostly insects, especially green caterpillars.

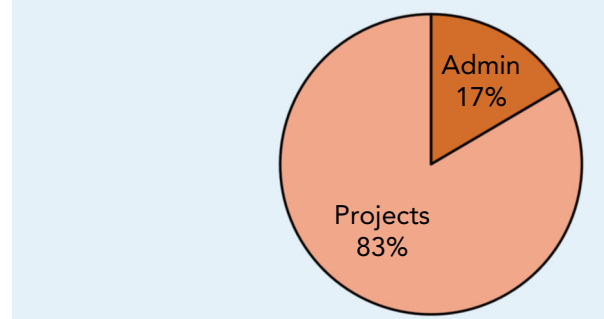
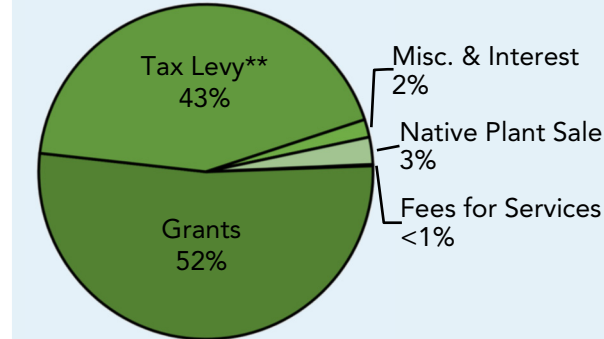
Nesting Style
 Builds a neat, open cup of dry grass and plant fiber, lined with feathers, fur, and moss, 1-50' up fir, oak, or other trees or shrubs.

Fun Fact
 The Black-throated Gray Warbler, Great Blue Heron, and Rufous Hummingbird are the focal species of the Twinning's youth education exchange (see p.5). All three migrate between the Willamette Valley and Rio Laja basin of Mexico.

Photo by VJAnderson, CC BY-SA 4.0

Financial Report for Fiscal Year 2018-2019*

* All data is from final audited financial information for FY 2018-19
 **Tax Levy \$0.05/\$1,000



Revenue	
Grants	\$531,760
Tax Levy**	\$438,705
Native Plant Sale	\$26,680
Misc. & Interest	\$17,491
Fees for Services	\$1,388
Total	\$1,016,024
Expenditures	
Admin	\$153,512
Projects	\$776,516
Total	\$930,028
Net Change	\$85,996

Birds need conservationists



The red-breasted nuthatch is an industrious little bird with amazing excavation skills! With its long sharp bill and strong neck, the female removes wood from a rotting snag to create a nesting cavity. It rarely uses nest boxes or pre-existing cavities. This small bird relies on old growth conifer forests for seed cones, their primary winter food source. As we manage complex habitats, we need to think through many details, such as the nuthatch's need for seed-bearing conifer giants and snags for the construction of nesting cavities.



Red-breasted Nuthatch

Scientific Name
Sitta canadensis

Size
Length 11 cm (4.3 in)

Habitats
Conifer forests, preferably with mature trees.

Preferred Diet
Insects and spiders in summer; winter seeds, especially those from conifer cones.

Nesting Style
Excavates cavity in rotten snag no higher than 40 ft above ground. Smears sticky pitch around entrance to discourage intruders.

Active Season
spring-summer-fall

Fun Fact
With black mask and upside-down movement, the nuthatch could be considered a forest-dwelling super hero!

Photo: Eugene Beckes 2013, Flickr

Conservation practices meet multiple objectives

When you pay attention to the details of a healthy environment, the components list is long and many items are so intertwined that it is difficult to prioritize them. What comes first in a management strategy? What are the most crucial parts? How will the implementation of a conservation practice impact adjacent areas or creatures who live there? A resource conservationist, who assists landowners to help the land, asks those questions every day.

Fortunately, our federal partner, the USDA Natural Resources Conservation Service (NRCS), has been helping people work toward healthy and productive lands for 84 years. NRCS has an incredible "toolkit" of science-based, field-tested practices, and financial assistance programs that are fine-tuned for local needs and supported by well-trained Oregon NRCS staff.

The NRCS 9-step planning begins with a whole-landscape inventory of resources, past, present and needed, and a record of landowner concerns and objectives. Alternative actions to address each objective are offered to the landowner who selects the right components to reach their goals within a realistic timeline and while considering resource availability, such as finances.

In the past year, the District has worked to certify the completion of NRCS conservation practices on private lands. This work strengthens our relationship with NRCS, but also helps us meet and assist Benton County residents. Currently, our NRCS agreements have focused on (1) forest thinning, brush management, and replanting in overgrown [Oregon white oak](#) (*Quercus garryana*), and (2) cover crops and nutrient management on small, diversified farms.

District staff have also joined forces with the Oregon Department of Agriculture (ODA) to launch a Strategic Implementation Area (SIA) in the Upper Muddy Creek watershed, west of Monroe. We are helping landowners reduce impacts to water quality through conservation practices. Some lots have livestock entering the creek or areas with mud and manure management needs. Others will benefit from fences or vegetation plantings to help control the loss of soil and to provide shade for cool, clean water throughout the year.

—Teresa Matteson, Resource Conservationist



Woody Residue Treatment is a daunting undertaking for many forest landowners.

Birds need water



Birds need water for drinking, bathing, and travelling. If you are lucky enough to have a river, stream, or other natural water body on or adjacent to your land, birds are likely to visit. These areas provide corridors for birds to travel, nest in, forage, and raise their young. A healthy riparian area will have a variety of mostly native plants, dead trees, abundant leaf litter, and undisturbed soil. If you don't have a natural source of water, a well-maintained pond or bird bath can help.

The Willamette Mainstem Cooperative

In spring of 2019, the mighty Willamette River reminded Benton County that it was there. The river crested at its highest point in recorded history for the month of April, flooding farm lands, golf courses, and Highway 34 leading to Corvallis. While a river flood causes headache and strife for travelers and property owners, the ecological functions of a flooding river can be viewed as a silver lining. River floodplains are said to be "re-set" by flooding. Sediment is moved and deposited in other areas, groundwater is recharged, soil becomes more fertile and nutrient rich, and invasive species, such as *Ludwigia hexapetala*, are scoured out from areas where they have been.

Through the Willamette Mainstem Cooperative (WMC), a collaboration of landowners, organizations, and volunteers working together to promote, facilitate, and foster long-term stewardship of Willamette River resources between Corvallis and Albany, BSWCD continues to work to control aquatic invasives such as *Ludwigia* (*L. hexapetala*) and yellow floating heart (*Nymphoides peltata*) at off-channel alcoves, sloughs, and side channels. While the 2019 flood gave restoration practitioners a leg up by flushing out aquatic invasive species, we continue to work to control the invasives and educate the community on identification and hand pulling techniques. The WMC hosted four community workshops this summer and handed out Benton County Aquatic Weed Guidebooks.

The 2019 Willamette Flood also provided significant disturbance to many of the sites along the river, which seemed to improve growth and survival of native plants like wapato (*Sagittaria latifolia*). A few sites along the river had wapato populations so abundant that the WMC worked with The Confederated Tribes of Siletz Indians to harvest some tubers for planting at



Wapato at Wapato Cove

the Tribe's Fish Hatchery site. Water quality at all the sites monitored by the WMC has also improved, likely due to the reduction of *Ludwigia* populations. As the WMC begins the development of our 2020-2025 Strategic Action Plan, we intend to continue to think about what will most improve the health of the Willamette River and species, like the green heron, that utilize it.

—Laura Brown, River Restoration & Invasive Species Program Coordinator



Green Heron

Scientific Name
Butorides virescens

Size
41-46 cm

Habitats
Lakes, ponds, marshes, streamsides. Often nests in willow thickets.

Preferred Diet
Green herons eat mainly small fishes such as minnows, sunfish, catfish, carp, and shad. They will also eat insects, amphibians, reptiles and rodents.

Nesting Style
Green herons prefer secluded sites in trees or brush.

Fun Fact
The green heron is one of the world's few tool-using bird species. It will create fishing lures from insects and feathers, and drop it on the surface to lure small fish.

Photo: Richard Griffin CC BY-NC-SA 2.0

Birds need to nest



Birds need places to engage in courtship behavior, mate, and then bear and raise their young. Nesting places include snags, shrubs, thickets, burrows, tall grasses, burrows, and so on. Nest building birds use a variety of materials. You can grow plants that offer the materials, or you can provide these materials: native plants, twigs, lichens, moss, mud, and dry grass. Well maintained nest boxes encourage cavity nesting birds to move into your yard. Visit Cornell Lab's Right Bird, Right House website for plans.



American Dipper

Scientific Name

Cinclus mexicanus

Size

16.5 cm (length)

Habitats

Fast-flowing mountain streams.

Preferred Diet

Mostly aquatic insects, also fish eggs and very small fish.

Nesting Style

Moss nests are domed and about one foot across, built on mossy rock walls or under bridges kept wet by stream spray.

Fun Fact

An indicator of water quality, the dipper (aka water ouzel) feeds in the water, walking along the streambed in a manner that resembles swimming or underwater flying. Spotting a dipper is a highlight of Salmon Watch field trips!

Photo: Knecht03, wikipedia, CC BY-SA 3.0

Reaching People Where They Are...

The Pacific Ocean, so powerful and yet so susceptible to a changing climate. In the north Pacific, the Blob, which first appeared in 2015-16, has returned this year. The Blob is a large area of exceptionally warm ocean water caused when unusually warm air temperatures keep heat trapped in the ocean. When ocean temperatures are warm, copepods do not build up large fatty reserves, reducing their nutritive value for the salmon that depend on them for bulking up. In 2015 juvenile salmon experienced in-stream drought conditions, then migrated to an ocean without the food resources to support them. According to ODFW's Willamette Falls Annual Fish Passage Counts summary, the ten-year average return rate for adult spring chinook is 36,880. This year, 18,882 were counted. In summary, salmon aren't getting enough to eat, which is one reason why their return rates are so low.

At a Salmon Watch field trip this fall, a parent chaperone and I discussed the current state of the salmon. He urged, "We need to be talking to more people about this." The Linn Benton Salmon Watch program provides an opportunity to talk about the close-at-hand and far-reaching impacts of our actions on species like salmon. Between October 10 and November 13, we ran 16 Salmon Watch field trips at Clemens Park for about 750 students living in Benton County. Salmon Watch relies on a broad network of supporters, including Benton SWCD, Calapooia Watershed Council, South Santiam Watershed Council, Oregon Department of Fish & Wildlife, Siuslaw National Forest, Benton County Natural Areas & Parks, Corvallis School District, and our wonderful volunteers. For this year's Benton Country trips, about 63 volunteers worked 100 volunteer shifts, with ten of those shifts in Spanish! Teenage students from College Hill Alternative High School and Kings Valley Charter School delivered lessons on four of the field trips. Through Salmon Watch we reach close to 1,000 people in Benton County each year with hands-on learning about local watersheds and how we contribute to their health.

Participation in other community efforts allows us to share conservation awareness and practices more broadly. From Rural Living Day to Family Science Nights, we're reaching people at events they already attend. We are thrilled to be members of The Willamette-Laja Twinning Partnership, which unites youth, educators, habitat restoration practitioners, and the birding community from the Willamette River basin in the U.S. and the Laja River basin in Mexico for deep cultural connections and sustained conservation of shared migratory species and habitats. Attend our bird-themed annual meeting on January 13th at Corvallis-Benton County Library to learn more about this exciting effort.

—Heath Keirstead, Communications & Community Engagement Manager

Birds need structural diversity



Birds need shelter from bad weather and hiding places from predators. Cover takes many forms: trees, dense shrubs, tall grasses, rock and brush piles, hollow logs, a stack of firewood. The more choices provided, the more inviting the landscape. BSWCD's Invasive Species Program strives to protect and improve the structural diversity of habitats by working with residents to manage invasive species. We generally target newly established invasive species and high quality habitats.

Ivy Removal Protects Structural Diversity

Have you noticed anything different on your commute from Corvallis to Albany along the Willamette River over the past few years? Hopefully you've noticed less of the invasive English ivy! Ivy grows up trees and literally weighs them down, often causing them to fall. As ivy crawls up trees, it also outcompetes the tree for sunlight and other resources, ultimately impairing habitat by reducing structural diversity. Birds depend on riparian areas for nesting or migration. While many think that ivy berries are a good resource for birds, studies have found that English ivy fruit is preferred primarily by European starlings, another invasive species! Additionally, in the Pacific Northwest, sites dominated by English ivy have been shown to have lower diversity in birds, mammals, and amphibians, than sites without ivy.

In 2015, BSWCD was awarded a grant to treat invasive species along the Willamette River and within the riparian area between Corvallis to Albany, including English ivy (*Hedera spp.*), invasive water primrose (*Ludwigia spp.*), traveler's joy (*Clematis vitalba*), false brome (*Brachypodium sylvaticum*), purple loosestrife (*Lythrum salicaria*), and Japanese knotweed (*Polygonum cuspidatum*). This project began by partnering with public landowners, such as the City of Albany and Oregon Parks & Recreation Department, to work on sites such as Takena Landing where ivy had grown into a dense monoculture. By the end of the grant in 2019, BSWCD was able to reach out to and work with over 15 private landowners from Takena Landing all the way to Hyak Park to treat over 30 acres and four miles of English ivy along the river!



Before ivy removal (top) & after (bottom)

In 2019, BSWCD and the Benton County Cooperative Weed Management Area hosted the 6th annual "Let's Pull Together!" event, where partners around the county pulled invasive weeds from places they love. English ivy was removed from Marys River Park in Philomath, Grand Oaks Neighborhood and the McDonald Forest in Corvallis, and from many of Albany's city parks. BSWCD also partnered with Philomath High School to pull invasive ivy from city parks in Philomath. Through partnerships and awareness, we can work together to manage ivy and protect structural diversity for bird habitat.

—Laura Brown, River Restoration & Invasive Species Program Coordinator



European Starling

Scientific Name

Sturnus vulgaris

Size

20-23 cm

Habitats

Almost any kind of disturbed habitat.

Preferred Diet

European starlings usually forage in flocks and will eat insects, berries, nectar, and seeds. They eat ivy berries, cherries, holly berries, and blackberries.

Nesting Style

Starlings nest in cavities, including nesting boxes built for natives species.

Fun Fact

European starlings were intentionally introduced to North America by a group of Shakespeare enthusiasts in 1890.

Photo: Charles J Sharp, CC BY-SA 4.0