# Nature Trails

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# **Burning for Butterflies, Birds, and Blooms: Prescribed Fire in the Willamette Valley**

# Amanda (Stamper) Rau

Fire Program Manager for The Nature Conservancy's Oregon and Washington Chapters, Chair of the Oregon Prescribed Fire Council

Friday, 15 March 2019, 7:30 pm, Room 100 Willamette Hall, UO Campus Fire has always played a role in shaping the Willamette Valley landscape. Prior to the arrival of humans thousands of years ago the fires were by definition wild—caused commonly by lightning strikes and rarely by other events such as volcanic eruptions. The Kalapuya, who occupied the valley for eons prior to the arrival of Europeans, considered fire an important tool for a multitude of purposes. The agricultural practices brought to the valley by European colonizers did not include regular burning. Whitlock et al., in a report entitled Historical Fire Regimes of the Willamette Valley, Oregon: Providing a Long-Term Regional Context for Fire and Fuels Management, say that the complex mosaic that included oak savannah, prairie, and extensive upland and riparian forests has almost completely disappeared, replaced by urban and agricultural areas; the oak savannah and woodlands have been replaced by coniferous forests, and shrubs and trees now dominate the former wet prairies and grasslands. They conclude that this fundamental change in vegetation is almost completely if not entirely the result of removal of fire from this ecosystem. The consequences of this major change have been anything but beneficial for the plants and animals that had provided that stable food supply and habitat for untold generations. Many of those species are now on threatened or endangered species lists.

In recent times, fire management has become an area of active discussion. The view that fire is always to be avoided and fought, is giving way to a more historically relevant and nuanced view—that fire has a legitimate place in the collection of change agents that together generate a region's landscape. Our March speaker, Amanda (Stamper) Rau, will begin her talk with the history and foundations of fire's role in the ecology of the Willamette Valley, followed by a tour of the controlled ecological burning through cooperative partnerships that aims to restore and conserve the species and habitats that depend upon fire's good work on the landscape.

Rau is a fourth-generation Oregonian. Her maternal ancestors arrived in the late 1800's and settled near Amity to farm, building a dairy herd and planting fruit and nut trees. She still has relatives in the area. Rau was born in Eugene and grew up in Leaburg. She left Oregon for a while in her youth but, realizing what a hold the state had on her, moved back and has been here ever since. Her connection to Oregon land continues: she and her family manage a 672-acre woodland west of Eugene.

Rau went to the University of Oregon and graduated with a BA in philosophy. Besides grounding her in analysis and critical thinking, her undergraduate training helps in her current role in at

least this fundamental way: one of her professors told her that if she couldn't explain a philosophical concept to her grandmother she didn't really understand it. Rau said the thought of making Kant understandable to grandma was sobering, but that her prof was right and she took the challenge to heart. A major emphasis in Rau's current work is convincing others of the necessity of prescribed burning, and her ability to make complicated material understandable stands her in good stead as she works with members of the public to help them better understand the complexities of prescribed burning.

Rau has been involved in fire management since 1999. She spent eight of those years fighting wildfires, working in every western state. In 2001. after finishing her BA at UO, she began to pursue a career in fire management, working on hotshot crews, handcrews, and engines; as a fuels technician on the Deschutes National Forest: and assistant fire management officer in fuels management on the Ochoco National Forest and Crooked River National Grassland. Along the way Rau continued her education. She completed a Masters in Natural Resources, Fire Ecology, and Management at the University of Idaho in 2012. Since completing graduate studies, she has worked for the Prineville District Bureau of Land Management as a natural resource specialist coordinating post-fire emergency stabilization and rehabilitation; as invasives program manager for the Deschutes and Ochoco National Forests and Crooked River National Grassland; and in her current positions as fire program manager for The Nature Conservancy's Oregon and Washington chapters and chair of the Oregon Prescribed Fire Council.

In her work with The Nature Conservancy (TNC) Rau is active in the Fire Learning Network, a collaborative effort involving TNC, the US Forest Service, and the Department of Interior. The training program is open to any who qualify: non-governmental organizations, tribes and other countries, including Canada, Mexico, Australia, Spain and Portugal, have sent participants. Experts in prescribed burns are matched with new firefighters looking to gain experience in fire lighting. The training focuses on developing skilled prescribed fire practitioners, engagement and outreach, and controlled ecological burning.

Much of Rau's work involves convincing others of the legitimacy and necessity of prescribed burns. In an interview after a successful prescribed burn in the Ashland area Rau was asked what she wants the role of prescribed burns to be in 20 years. She said, "I hope to see equal or greater resources being devoted to prescribed fire versus wildfire suppression, smoke management laws and policies that recognize the need for prescribed fire in reducing wildfire emissions, planning and implementation across jurisdictional boundaries and cultural barriers, and prescribed fires being implemented at a scale that allows more wildfires to burn." Asked what she had learned from that particular project she said, "I learned how rewarding it is to help private landowners safely and effectively return fire to their lands. I also gained communication skills in building trust and social license, and learned the importance of

relationship-building with landowners and their neighbors."

Both through her writing and speaking activities Rau is a tireless advocate for the use of fire to benefit the landscape of the Willamette Valley. Please join us at 7:30 pm on Friday, 15 March in room 100 Willamette Hall on the UO campus to hear "Burning for Butterflies, Birds, and Blooms: Prescribed Fire in the Willamette Valley" by Amanda (Stamper) Rau. There might be a cookie or two. John Carter

#### **Antidote 3** by Evelyn Hess

I'm not sure how I would survive winter if I felt confined to piped-in air and artificial lighting. To me, the best antidote for winter doldrums is to get outside. The sun may be weak, low, and frequently hiding behind the clouds, but I know it's there when I'm in the natural world. Slouched miserably within walls, I'm not so sure.

I walk around our property and up the road. The colors of stems—clear yellow, apricot, scarlet, and various shades of green or brown—thrill me each winter. Mosses brighten, lichen hangs, or crusts in vertical gardens of greens and grays, and everywhere

I see promises that spring is knocking.

Sometimes I walk alone, and sometimes with borrowed pets, since ours are gone now. My companions one day in late January are Ernie and Marietta O'Byrne's pet



Marietta b 1974.

trio, two greyhounds, Bo and Cody, and Gus, the dogs' black and white feline buddy. We walk across the O'Byrne's broad field north of their nursery and garden with the east-end woods our goal. I'm wearing canvas shoes, which get only slightly wet in the meadow, and not at all muddy. In January. In Eugene. A noteworthy but unsettling fact.

My three companions sniff the air, snuffle along the ground. Holes throughout the field advertise voles, a tantalizing meal prospect. Nearby we discover fox scat, dark, and beaded with scattered seeds, its fragrance (that I can't smell) telling my comrades stories they don't share with me. At the edge of the woods all three explore—sniffing, waiting, sniffing

some more. Coyotes hang out around here, and perhaps a den is nearby, coyote, fox or otherwise.

All around us, hundreds of stakes, replaced later by flags, of yellow, red, green, pink or purple, pepper throughout a band seventy-five feet or so from the meadow's north edge. Matching markers bristle through a field to the south. These mark future homes for about four hundred mixed-species conifer seedlings plus fifty swamp oak (*Quercus bicolor*), the trees selected for wet and dry habitats and for their diversity. Along with the oak, the Willamette form of *Pinus ponderosa* deals well with Oregon's winter wet. These plantings, along with providing habitat, water storage and beauty, will become a major carbon-sequestration project.

Trees store about fifty percent of their dry weight as carbon. Oregon State University and the University of Idaho recently identified Oregon's Coast Range and its ecological community, which stretches from Northern California to Alaska's Tongass National Forest, as among the best in the world at capturing and storing carbon. In study years 2011 to 2015. Oregon ecosystems absorbed seventy percent of the state's greenhouse gas (GHG) emissions. The study also fingered Oregon's timber industry as the state's number one emitter of GHG at over 33 million metric tons (mmt) CO<sub>2</sub> equivalent per year since 2000, producing half again more than the transportation sector (23 mmt). Surprisingly, less than a quarter of Timber's emissions were due to fires. The good news is that the report also identified ways to reduce emissions and increase storage.

Step number one requires protecting all of Oregon's remaining ancient forests. Contrary to the belief that young, fast growth stores the most carbon, old growth, it turns out, amasses much more. Oregon's remaining old growth was measured exceeding 1,200 metric tons (mt) per hectare, while a plantation hectare manages only about 400 mt.

Next, clearcuts should be less frequent. Current rotation time is 45 years. If that were extended to an eighty-year rotation on privately owned lands and

public land harvests were cut in half, along with reforestation and planting new forests, Oregon could increase net carbon balance 56% by 2100. The animal trio and I (an animal quartet) are walking along the dawn of new woodland that will be sucking up CO<sub>2</sub> long before 2100.

As we turn the corner and head toward a wide mowed path into the woods, I admire the soft, silvery, green-blue needles on a grove of mixed western and eastern white pines (*P. monticola and strobus*), now about 30 feet tall, that the O'Byrnes planted in the mid 1980s. White pine seedlings in the new planting will add to this elegant grove.

My objective this day is to see if the snow queen (Synthyris reniformis), abundant along the forest path, is early. As early as Solstice, I had noted leaf buds on our home flowering currant (Ribes sanguineum), pale green and pushing upward, like rockets eager to take off. Last year the Ribes flowered at least two weeks earlier than usual. I'm watching it carefully this year to check for repeats and I'm eager to see how much earliness manifests through species. But there are no buds on the Synthyris. I expect its bloom to begin in February, and it still has time. But now I wonder if it will be late. As of late January, our rain year precipitation (from October 1) is about half of normal. Mightn't snow queen, which gets its name from being one of the first to poke its nose through the snow, be negatively affected by droughty soils? I'll stay tuned. Exploring outside, celebrating the changes of color, swelling buds, enjoying the antics of friends' pets, fills my heart and head until there's no room for SAD (Seasonal Affective Disorder). Dry soils and early blooms invite another kind of sad. But personally, I don't have time left on earth to waste being unhappy. I'll combat that other kind of sad by *doing something*.

I'm going to contact the governor and legislators about forestry regulations. Why should we allow Oregon laws to be so much more lax than those of Washington and California? We must save every bit of remaining ancient forest, and we need to lengthen rotation cycles. Then I'll protest aerial spraying and too-narrow riparian buffers.

And I just became a citizen science volunteer for OSU's Oregon Season Tracker program. As long as I'm getting off on checking out the plants, I might as well share the information I glean for OST's research on species' response and adaptation to variations in climate. It's nice to have an excuse to do what I'll happily be doing anyway. Meanwhile, rain has fallen at last, I spotted the first snow queen flowers February 1, flowering currant is about two weeks early, winter made a sassy late entrance to divert our attention from signs of spring, and I remain grateful for friends who let me borrow their critters, explore their woods and stroll the paths of their mood-uplifting garden.

### A Drop of Water by Reida Kimmel

It snowed at Crater Lake on the night of the Fall Equinox 2016. It was just a little snow, even at that elevation—wind driven and very wet. At dawn, the mountain ash bushes lining the steep drop-off to the lake were fluffy with snow. Protected under their branches, numerous birds continued to forage for juicy red berries just as they had on the warm afternoon the day before. In less than an hour, the September sun melted all the snow. Briefly, the road was a gleaming river, and then all the water disappeared, sinking into the dry pumice soil, leaving no trace. Oregon's mountains are wonderfully capable of holding and storing meltwater from snow. It may be years before stored Cascades water finds its way to the rivers and lakes on which we are all so utterly dependent. We wanted to trace water's journey, or one possible journey, to the south, to Klamath Lake.

Besides the glorious blue lake and the mountains surrounding it, Crater Lake National Park has smaller wonders to visit. Watered by springs, little Castle Creek wildflower trail is always wet. Walk carefully. At any time, summer or fall, there are many species of wildflowers indigenous to the Cascades in bloom. More pertinent to our search for that drop of water heading to Klamath Lake, is Annie Spring near the Mazama Village entrance to the Park. There, in a wooded grove, the substantial spring appears abruptly, fed by snowpack meltwater and by groundwater stored from past years' melting snows.

Annie Spring becomes Annie Creek, flowing through a steep canyon and passing out of the Park into private land and the Fremont-Winema National Forests. It joins with Sun Creek before joining the Wood River. Although Annie Creek is the largest tributary of this beautiful river, the Wood River itself originates more spectacularly, from a very large natural spring, easily accessible, in Jackson F. Kimball State Recreation Site. Like Annie Creek, the spring's origins are in the National Park, twenty miles away to the north-west, in the Park's east side drainage. The Wood River flows through groves of ponderosa pine, riparian meadows and pastureland. The waters support populations of Great Basin

redband trout and coastal rainbow trout, both species native to the Klamath basin, as well as brook and brown trout. Less than an ecological paradise, the lower Wood is diverted to a number of irrigation canals. The used water and the added chemicals and salts from its agricultural use flow back into the Wood before it enters Agency Lake.



As long ago as 1863 the U.S. Army planted three thousand acres of grass for fodder for the horses and mules in use at Fort Klamath near the Wood River. Seventy years ago, the wetlands at the mouth of the Wood River, like those of other rivers feeding Klamath Lake, were diked and drained for growing hay, wheat and other crops. Levees held back water from Agency Lake, and thus Klamath Lake. The agricultural chemicals in the water increased the alkalinity of these dry-country bodies of water. Their lethal algal blooms were symptomatic of fertilizer pollution. In the heat of summer the pH of the water in these lakes, normally around 8, can climb as high as 11. If not lethal for fish, such basicity causes breeding failure. Eggs cannot survive.

In 1994 the Bureau of Land Management was able to purchase 3,200 acres of wetland pastureland near the mouth of the Wood River. Over the decades, the BLM has restored these wetlands to a more natural state and created half a mile of meandering channel at the mouth of the Wood. The project has been a success. Willows, shrubs, water plants, all sorts of vegetation, much of it native, filter and clean the water before it enters Agency Lake. Both at the Wood's mouth and along the shores of Agency Lake, the many large flocks of migratory birds, including white pelicans, and various species of ducks and geese, are spectacular. And so too are the shore birds and passerines. The wetlands of the Klamath Basin are vital for migratory waterfowl west of the Mississippi. Oregon Wild estimates that a hundred years ago the Klamath wetlands annually hosted ten million migrating birds. Unfortunately, the U.S. Fish

and Wildlife Service continues to lease many thousands of acres of land to private agribusiness.

One landowner that does not put agriculture first is The Nature Conservancy, which hosted our journey following water's movement from the Cascades to the Klamath basin. Our final visit was to the Conservancy's Williamson River Delta Preserve. The Williamson River enters Klamath Lake south of Agency Lake. It, too, originates in the Cascades, in the Winema National Forest east of Klamath Lake, following a hugely curving course north and then south before it joins with the Sprague and enters Upper Klamath Lake. This river supplies fifty percent of Klamath Lake's water. But farmers had diked and leveed its delta for nearly a century, destroying thousands of acres of marsh. Thanks to The Conservancy's efforts, close to 2,500 acres of farmlands have been restored to marsh. Some years ago, Oregon Field Guide produced a program on the most dramatic part of the restoration. In 2000, the synchronized blasts of a hundred tons of carefully set explosives blew up four and a half miles of levee, hurtling the levee soil inland, liberating lake and river water to flow into the former farmland. (Klamath Levee Blast). There is still some cropland in and near the preserve, but where the marsh has been restored, miracles have occurred. It was questionable whether just blowing up levees and letting in water could make the marshes whole again, but nature made a quick recovery. Sixteen years after the blast, willows and shrubs dominated the shores. Everywhere marsh grasses and wetland plants flourished. We took a boat trip at the mouth of the lake. The hosts of wetland birds hardly noticed our presence. On the lake, we could clearly see where the restored marsh had purified water coming from the Williamson. It was clear or blueish. The Lake water into which the Williamson's water flowed was a murky brown.

Sadly, the restored marshes' clean water has not achieved the goal of improving the breeding success of two species of sucker fish, key components of the pre-settlement Klamath Lake ecosystem, spiritually and materially important to the tribal nations who once inhabited the lakeshores. The sucker fish are still not breeding naturally. Perhaps the wild adults are too old to breed. Perhaps the lake is still too basic, or too warm, or too polluted elsewhere in its extensive waters. There are no young fish here, but there is still hope that the species can survive. Let us also hope that more marshlands can be restored all around the lake, and that the infamous dams below the lake will be removed, once again allowing natural water flow through the lake.

#### **ENHS Field Trip to the Siskiyou Field Institute**

7-9 June 2019

Location: SFI is 1.5 mi. west of Selma, Oregon, on the Illinois River Road.

**Things to do:** Swim in the creek adjacent to SFI, visit the Oregon Caves, hike and botanize along the Illinois River Trail, become familiar with the Klamath-Siskiyou region.

**Housing:** 

**Dorm or private rooms.** Private rooms have private bathrooms with showers. The dorm contains two shared bathrooms—one with a shower and one with a bathtub. The great room and kitchen in the Kendeda House are shared space.

The private rooms are \$75/night/person, \$90/night/2 persons. There are four private rooms: 1 with a queen bed, 2 with one double bed each, and 1 with a double and single. Bedding and towels are provided.

The dorm accommodates 6 guests in bunkbeds; \$27/night/person. Bedding is provided but towels are not. <u>Yurts or camping.</u> The large, air-conditioned yurt sleeps 18, \$20/night/person. Campsites are available at \$15/night/2 persons + \$5 each additional person. An open-air pavilion has picnic tables, electricity, and running water, and a propane BBQ may be used for a fee. Yurters and campers supply their own bedding and towels, can

use the solar bathhouse with showers and toilets, and have access to the great room and kitchen in the Kendeda House for meal preparation and hanging out.

Photos of the SFI grounds and some accommodations are on the SFI website:

http://www.thesfi.org/Page.asp?NavID=1008

**Food:** The kitchen is equipped with dishes, soaps, utensils, and appliances; all you need to bring is your food. A refrigerator/freezer and pantry are available for guest food storage. No matter which housing arrangement you choose, you will have access to these facilities.

When signups are complete, the attendees will determine how to handle the food and carpooling.

Guide: We will be hiring an SFI guide who is familiar with the surrounding area. Cost will likely be \$10/person.

Sign up: Decide which sleeping arrangement you want, then contact Kim Wollter (<a href="kwollter@comcast.net">kwollter@comcast.net</a>, 541-484-4477) to reserve space before sending a check. Send a check for the total amount, made out to Eugene Natural History Society, to Kim at 3550 Mill St., Eugene 97405. Please include your email address and phone number. The trip will be limited to 20 people, and past ENHS field trips have filled up quickly. We will maintain a waiting list if necessary. All accommodations are on a first-paid, first-served basis. Your check must be RECEIVED by 26 April.

#### **Events of Interest in the Community**

**McKenzie River Trust** 

Tuesday, 12 March, 7 – 8:30 pm. Science Pub at Wildcraft Cider Works: The Bountiful Benefits of Beaver: Restoring Floodplain in the Upper Willamette Watershed.

Wednesday, 20 March, 9:30 am - 12:30 pm. Watershed Wednesdays at Hileman Park.

Friday, 5 April, 10 am – 2 pm. Friends of Finn Rock Reach.

Saturday, 6 April, 10 am – 12:30 pm. Green Island Restoration Tour of CARP (Coburg Aggregate Restoration Project). For full descriptions of these events and instructions on how to register for them, go to <a href="https://www.mckenzieriver.org/events/-event-listings">https://www.mckenzieriver.org/events/-event-listings</a>

**Lane County Audubon Society** 

Tuesday, 26 March, 7:30 pm. Birds, Wildlife, and Landscapes of Northern Tanzania. John Sullivan and Laura Johnson will share stories and photos of their 2016 trip to Northern Tanzania. You'll see photos of vast herds of migrating wildebeest and the big cats that follow the herds, and witness the spectacular congregations of wildlife in the lush grasslands of Ngorongoro Crater and other national parks of Northern Tanzania. Several smaller reserves in the dense rainforests of the Eastern Arc Mountains are also included, providing opportunities to observe many endemic bird species. 1645 High St.

Mt. Pisgah Arboretum (all these MPA events will occur rain or shine; meet at the Arboretum Visitor Center and don't forget your parking pass.)

Saturday, 9 March, 11 am – 1 pm. Flies and Flowers Walk. Join Arboretum Interpretation Coordinator August Jackson on a walk to explore the important role of flies in the pollination of our early wildflowers. Learn about the process of pollination, learn the names and ecology of some of our colorful native flies, and learn to identify our early spring wildflowers. \$5, members free.

Sunday, 10 March, 8 – 11 am. Bird Walk. Join Joni Dawning and Julia Siporin for another monthly bird walk intended for people with all levels of birding experience. We'll use vocalizations, habitat, and behavior clues for identification of our early

spring migrants and year-round residents. Come discover the Arboretum's avian diversity. Please bring binoculars. Option to continue the walk until noon for those who are interested. \$5, members free.

Saturday, 16 March, 10 am – 12 pm. Life Among the Mosses Walk. This is our annual celebration of the little folks of the plant world. Botanist David Wagner will tell moss stories and weave lichen yarns to help us understand the elfin world of mosses, liverworts, and lichens. Fee: \$5, members free.

Saturday, 16 March, 1-3 pm. Nature's Slimy Creatures Walk. Slugs, snails, worms and more! On this walk for families, learn about the lives of our slimy friends here at the Arboretum with Education Manager Jenny Laxton. These greatly underappreciated creatures are more fascinating than you've ever imagined. Finish the walk by creating some slime of your own to take home. Members \$5 per family, non-members \$8 per family.

Saturday, 6 April, 1 – 3 pm. Wildflower Walk. Come enjoy spring wildflower displays along the Arboretum trails on a walk led by Gail Baker, retired LCC plant ecology professor. Camas and iris should be in full flower and we'll look for pale baby blue-eyes and blue-eyed Mary. We will also see the colorful developing fruits of early season flowers like osoberry. Gentle trails will pass through forests, wetlands, meadows, and riverside habitats. \$5, members free.

#### Friends of Buford Park and Mt. Pisgah

Monday Morning Regulars. 9 am-12 pm. Contact volunteer@bufordpark.org for more information.

Tuesdays and Thursdays, 9 am-12 pm. Nursery Work. Meet and work at the Native Plant Nursery at Buford Park. Enter Buford Park from Seavey Loop Road. Turn LEFT after crossing the bridge and drive 1/4 mile to the nursery.

#### **WREN (Willamette Resources and Educational Network)**

Tuesday, 12 March, 9 – 11 am. Wetland Wander. Andrew Reasoner Wildlife Preserve, 84595-84799 Lorane Hwy, Eugene. The Andrew Reasoner Wildlife Preserve Conservation Easement protects 294 acres of oak savannah in the Long Tom River watershed. Seasonal creeks, rocky outcroppings, and a special forest management area provide a home for iconic Oregon white oak trees and Willamette Valley ponderosa pine, native birds, elk, deer, and more. Joe Scott has been working on this property with a group of tribal youth and their families on a project called TeamTEK (Traditional Ecological Knowledge). He will share some of the project initiatives worked on by this group and his collaborators from U of O as we explore the site on foot. Take Bailey Hill Rd. south to the intersection of Bailey Hill Rd. and Lorane Hwy. Continue southwest on Lorane Hwy for 3 miles. The gate for the Preserve will be on your left and will be open. If you get to Fox Hollow Road you have gone too far.

#### The University of Oregon's Museum of Natural and Cultural History

Go to <a href="https://natural-history.uoregon.edu/education-and-events/calendar">https://natural-history.uoregon.edu/education-and-events/calendar</a> for a list of March events.

**Current Exhibits:** OREGON – WHERE PAST IS PRESENT; EXPLORE OREGON; THE COLUMBIAN MAMMOTHS, and AR-TI-FACT. Exhibit hours: Tuesdays – Sundays 11 am – 5 pm.

#### Native Plant Society of Oregon, Emerald Chapter

Monday, 18 March, 7 pm. When plants flower. Briana Lindh will talk about changes in spring flowering dates since 1960 using data from long-time NPSO member Wilbur Bluhm. These interesting data will help us look at the responses to anthropogenic climate change and natural climate oscillation of such native plants as camas and red-flowering currant, as well as some garden plants. Our chapter meets the 3rd monday of the month at 7 pm through April, at the Amazon Community Center. For more information visit us at <a href="http://emerald.npsoregon.org">http://emerald.npsoregon.org</a>.

#### **Nearby Nature**

Go to <a href="https://www.nearbynature.org/programs/">https://www.nearbynature.org/programs/</a> for NN events and programs in March.

## North American Butterfly Association, Oregon (Eugene/Springfield) Chapter

For information on upcoming events go to <a href="https://www.naba.org/chapters/nabaes/">https://www.naba.org/chapters/nabaes/</a>



ENHS welcomes new members! To join, fill out the form below. Membership payments allow us to give modest honoraria to our speakers, as well as to pay for the publication and mailing of Nature Trails. Our web address: http://biology.uoregon.edu/enhs

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I (we) prefer electronic copies of NT rather than paper copiesYes _		No		
If yes, email address (if different from	the one above):			
ANNUAL DUES: Family	\$25.00			
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Life Membershi	p 300.00			are payable in September.
Contribution				Memberships run from September
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Eugene Natural History Society				encouraged and appreciated.
P.O. Box 5494, Eugene OR 97405				

The Eugene Natural History Society meets on the third Friday of the month September through May except in December when the meeting is on the second Friday. Meeting time is 7:30 pm and our standard meeting location is room 100 Willamette Hall on the University of Oregon Campus. Any temporary changes will be noted in the newsletter for the current meeting and on our website: https://pages.uoregon.edu/enhs/

A good place to park for our meetings is the Physical Plant lot: turn north from Franklin onto Onyx, go about a block and you will be in the lot. After 6pm it's open to the public.

#### ENHS. Officers and Board Members 2017-2018

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Nature Trails: Editor: John Carter, jvernoncarter@comcast.net; Support Staff: Ruth BreMiller and Reida Kimmel.

#### 2018-2019 Speakers and Titles

15 Mar. Amanda (Stamper) Rau **Burning for Butterflies, Birds, and Blooms: Prescribed Fire in the Willamette Valley Scott Burns** Cataclysms on the Columbia: The Great Missoula Floods 19 Apr.

17 May Vanessa Petro How Busy are Beavers in Oregon?