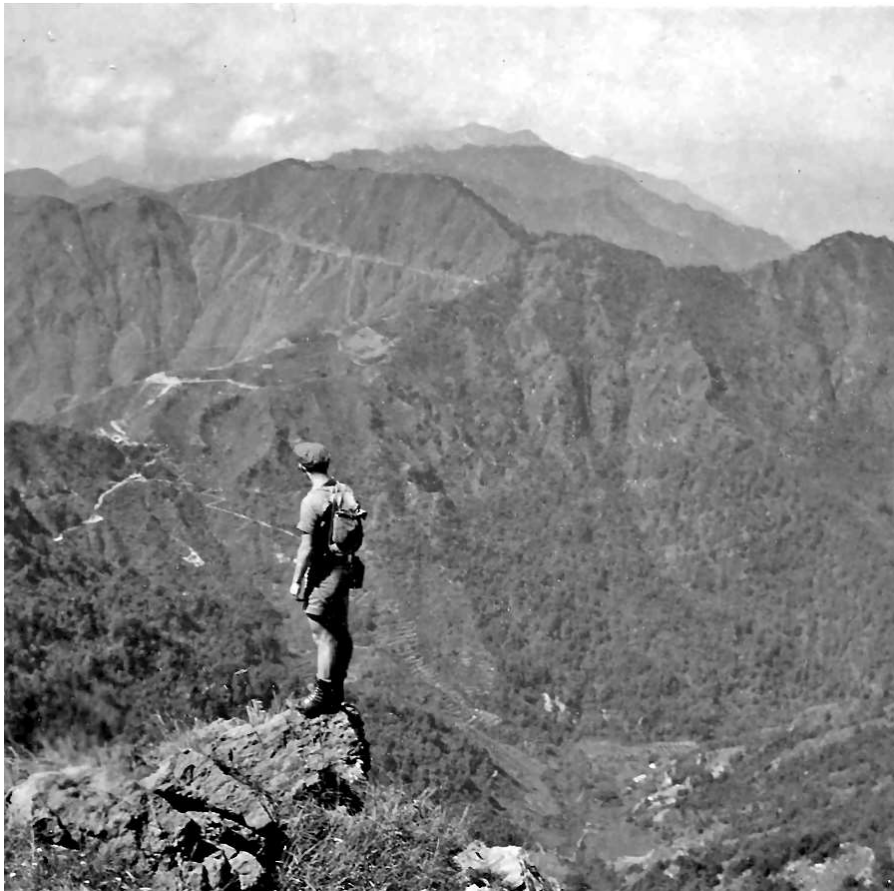


Nature Trails

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The Eugene Natural History Society is based out of the traditional homelands of the Kalapuya peoples who stewarded this land for millennia. Today most Kalapuya people are citizens of the Confederated Tribes of Grand Ronde and the Confederated Tribes of Siletz Indians and continue to play an active role in local communities and in the stewardship of this land.



Phil Jones on Top Tibba, Landour, Uttarkhand, India. 7500 ft elevation, 1963. Dave Wagner

Natural History of the Himalayan Foothills

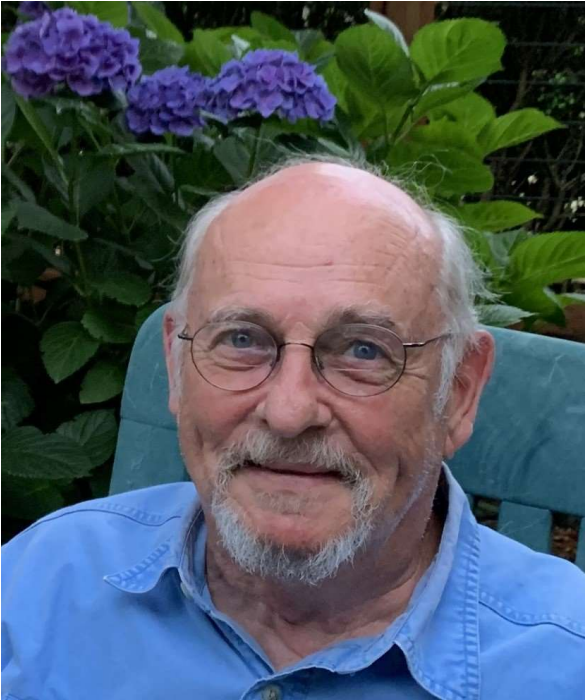
Dave Wagner

Courtesy Associate Professor of Biology, University of Oregon, Eugene

Friday, 20 October 2023, 7:00 pm

This month's meeting will be a hybrid of in person and real-time Zoom. The in-person lecture will be held **at our new time, 7:00, in room 221 Allen Hall, University of Oregon campus.** Parking is available at the UO Physical Plant lot. From Franklin, turn north onto Onyx, go 1 block to the lot. For the link to the Zoom lecture, see our website at <https://eugenenaturalhistorysociety.org/> or click here: <https://zoom.us/j/97499095971?pwd=eE9sdG9hSHMvOHhIUeJuU21wT20rdz09>

About This Month's Speaker



Nature Trails asked our own Dave Wagner, “How did you decide to become a botanist?” His reply:

My life’s commitment to studying plants began when I was 10 years old. I was already a dedicated naturalist with special interests in snakes and butterflies. My older brother, Stanley, was taking biology in high school. One of his assignments was to make a collection of pressed ferns. I was interested in what he was doing and fascinated by the way he and his classmates talked about their search for rare ferns. I found an unusual fern on a big branch while climbing an oak tree and brought it to Stanley. He told me it was a grape fern, one of the rare ferns he was looking for and had not yet seen. It was a real prize. So I put it between the pages of one of the biggest volumes of our *Encyclopaedia Britannica* and pressed it. (I know, a travesty of book abuse; I was too young to appreciate the value of such treasures.)

The following year I was given a chance to make my own fern collection as a class project for 6th grade natural science. Our collection was not expected to be as big as that of the high school students, but the notion was the same. I could hardly wait for the monsoons to begin.

Why the monsoons? Well, my school was located in the foothills of the Himalaya Mountains, in the town of Mussoorie. It was a

boarding school for missionary kids; my parents were Methodist missionaries in south-central India, close to Hyderabad. Woodstock School was at an elevation of 7,000 feet, surrounded by forests teeming with life. My father’s interest in natural history must have sparked my passion because I was collecting butterflies by age 7 or 8. He collected butterflies as a hobby, not unusual for a missionary in the 1940s and 1950s. The problem with butterflies was that they disappeared from the landscape when the monsoon rains came in late June. Beetles came out with the first rains, so for a few weeks our attention was on beetle hunting. After a few weeks of good rains, the ferns were ready to collect. When the monsoons ended, the butterflies appeared again, often in a fall brood of different forms. Butterflies kept the naturalist’s attention until the next monsoons. Such was the cycle of activity of the ardent natural history collector.

When I got to high school, we had a new biology teacher. I was keen on telling her about the tradition at Woodstock School of having the biology students make a collection of 25 kinds of ferns. I was very happy that she thought this was a good idea, but some of my classmates were not so happy. One day at lunch the girls accused me of lobbying for an unreasonable assignment. So on the way back from our cafeteria to the classroom building, I pointed out 17 kinds of ferns growing in the cracks of the rock walls lining the path. My ability and willingness to help with fern collecting had an unexpected side benefit. I garnered respect from girls who previously would just look past me. I wasn’t just a geeky nature nut, I had knowledge that was useful. There followed social feedback that involved my being more attentive to the girls, too. I didn’t stop being a geek, but I became a popular geek, a role I enjoyed. That year I collected over 90 kinds of ferns.

Fern study seemed like the pastime of dorks and geeks, and it more or less was. But getting the ferns to study was not without adventure and the chance for strenuous exercise. Those of us who hunted for ferns (all three of us) often went to places other hikers never thought of going. We slid down steep forested slopes and slipped over waterfalls to get access to ferny canyons. We climbed vertical cliffs without ropes or pitons.

Although often exposed to danger, only one time did I feel like I was in serious trouble in pursuit of ferns, and it was the one time we did use a rope. When I was 16 years old, I spotted the most exciting fern on the other side of a valley. It was growing at the top of a cliff that rose straight up from a rocky stream bed. A little scouting revealed that the ferns were impossible to approach from the side of the valley where our path was. The stream was at monsoon high water, and even if I could cross it the cliff was overhung at the bottom. There was no way to climb up to the ferns; I'd have to come down from the top.

I recruited two friends, Dean and James, to help me. It was a full day trip because the site was a 15-mile hike each way. After expending considerable effort through untracked forest, we found ourselves above the canyon on the side of the stream with the cliff full of ferns. Dean and James planted themselves on the uphill side of a tree at the top of the cliff. We had brought a "rope" (little more than a clothesline), which we tied around my waist so they could lower me over the lip of the cliff down to where the ferns were. Such a clever plan!

I would be secured from above while getting to the biggest and best of the ferns. It worked beautifully. They lowered me slowly over the cliff, me leaning back against the rope and walking backwards with my body nearly horizontal. I soon had a collecting bag full of ferns. However, the top of the cliff wasn't solid rock; it's lip was actually soil bound together with roots. In my swaying back and forth collecting ferns, the rope had cut into the lip that overhung the cliff. I called out to my buddies to pull me up. When they pulled on the rope, it cut deeper into the dirt at the top of the cliff and

pinned me underneath the lip. I yelled at them to stop, slack off, and release me. I was a big button trying to get through a too small buttonhole. What to do?! The rope wasn't long enough for them to lower me to the bottom of the cliff, and in any case we had no idea whether I could get out of the canyon, even if I didn't drown.

The rope was cutting into their hands and was cutting me in half. Time for a desperate move. I planted my feet on the cliff face and with both hands jerked the rope a little bit out of the groove it had cut. Dean and James then pulled me up just a bit. We did that over and over again. I can't remember much about how I got up because I didn't spare any energy to think; I just heaved and gasped and tried to keep my hands from getting jammed in the groove under the taut rope. Finally I was able to reach over the lip and grasp the rope above where it had formed the last groove. A little more heaving and puffing, and Dean was able to grab my arm and pull me to safety.

I wouldn't do that again, but the result of that ordeal was the only record of *Drynaria propinqua* from the Tehri Hills. In all my years in India (until graduation from high school), I never caught a butterfly the British hadn't previously reported. However, my explorations for ferns regularly turned up things nobody in the area had found before, even some specimens that were probably new to science. It was this prospect of discovery that led me into botany.

Dave will recount more of his adventures in India during his presentation, "Natural History of the Himalayan Foothills," on 20 October at our new time and place: [7:00 pm, 221 Allen Hall, UO Campus.](#)

Lookout Creek

by Tom Titus

In most years, our fall rains arrive in late September or early October. As the climate becomes less reliable, I'm ever more grateful when this summer transformation comes to pass. The cooling dampness always arrives uniquely. My favorite changeovers are those abrupt tempests that charge in after the last September heatwave. The wind accelerates, humidity rises, and a thin overcast sheers in from the southwest. Rain clouds tiptoed in this year, a gentle

changing of the guard preceded by cooler temperatures signaling summer's demise. In the Anthropocene, climate change and extractive forest management have colluded to produce historic wildfires. Summer is now a season of anxiety, and when the rains come the collective sigh of relief by humans and other-than-humans is palpable.

The seasonal shift last September was different in another way. I looked across our fair valley to the surrounding hills and ridges and

saw that the air had the stagnant look of barroom cigarette smoke. At first I thought this was my imagination. But the air quality index (AQI) in my weather app was above 150 and considered unhealthy. Usually we assume that rain will have a clarifying effect on our valley air, a phenomenon that happens for at least two reasons: Temperature inversions are disrupted, and the pollutants that were trapped near the valley floor are dispersed. Through the molecular polarity of water molecules, falling droplets coagulate with polluting aerosols and bring them to earth. All of us breathe easier in a multitude of ways.

I have not sought expert advice from meteorologists on the unexpectedly foul air following those September rains and instead have developed my own hypothesis. (I have little to lose because I'm not a weather person, and whether I'm right matters little for the remainder of this essay.) I think the elevated AQI was likely a remnant of those summer fires. The conflagrations have been contained and have vanished from the headlines, and our air has been relatively clear since. But a lot of very hot material remained on those burns. We all know the smoke-and-steam fest that arises when a hot campfire is doused with water. Imagine that same vaporous effect writ across an entire firescape pummeled by rain falling from an equally immense sky.

The surprising haze allowed me to ponder our fires once again, to make yet another attempt to wrap my mind around their awesome destructiveness and their potential to ecologically reset old forests. Many of us have been personally affected by fires because they can abruptly change the character of our favorite places. This year, the Lookout Fire has become the most poignant for me. My heart sank when I saw the first fire map. The lightning blaze flared on the ridge above Lookout Creek, just east of H. J. Andrews Experimental Forest (HJA). People at the station had to leave immediately as the fire burned west. I knew that the forest surrounding the creek would be scorched.

My connection to Lookout Creek was cemented many years ago. Deep into my teaching career at the University of Oregon, I realized they wouldn't fire me for building creative writing exercises into my biology

course, Amphibians and Reptiles of Oregon. Science and art provide different vantage points on knowledge, and triangulating between these disparate points in the living landscape allows us to navigate attentively and truthfully into a wiser future. This idea is the premise on which the Long Term Ecological Reflections program at HJA began 20 years ago. Nevertheless, building art into a biology course might be considered risky. In other words, I was afraid.

Lookout Creek became the first site for these writing meditations, a roar of gravity-driven water rushing impetuously along the canyon bottom. I challenged my students to separate. Find a place to sit alone with their journals. Shut off their phones. Be still for an hour. Pay attention. Record anything they saw, smelled, or felt. Write about anything they liked. Or didn't like. I promised to be out there alone, writing with them. I also vowed to read my piece in class the day before theirs was due. From the time I apprehensively tackled that first stack of papers, those small essays and poems became one of my greatest joys in teaching. Some of the writing was beautiful and probably publishable. Other folks struggled with language barriers. Punctuation and capitalization were often roughly approximated. Amid all that, the honesty they entrusted to me was utterly humbling. My students showed me that by being truthful with them, I had given them tacit permission to bare their own lives, an interweaving of spirit borne from empathy.

Now Lookout Creek Canyon has burned. I know what an old-growth fire looks and feels like. Many years ago, I took my kids on an evening toad-watching adventure along the Aufderheide near Box Canyon. The three of us drove up the road toward Skookum Campground, and when we reached the top of the ridge and looked across the canyon, the entire opposite side was in flames. Big trees torched into super-heated air, an ascension of sparks whirling into descending nightfall. The heat was heavy on our faces. It was an awe-inspiring encounter.

My head knows some things about fire. That our western Cascades forests burn on average about every 300 years. That fire intensity is not homogeneous across a burn, and islands of unburned forest always remain to make seeds

that wing down and germinate into seedlings that grow rampantly in the fertile ash. That the thick bark of old Douglas-firs makes them especially fire resistant. That wildfire sparks regeneration favoring a host of species otherwise excluded from perennially cool and stately old-growth communities. Lewis's woodpecker is considered fire dependent. Mammals small and large flourish in the presence of sun-loving grasses, forbs, and berries, as do their predators. In my head, I know and I know and I know.

But my heart knows some things, too. Mossy salamander refuges are replaced with dry charcoal and ash. Sunlight that once was attenuated by needled fingers of western red cedar and western hemlock glares hard on south-facing slopes. My heart knows that everything is different now. A century might be necessary to grow that shady bed of Oregon beaked moss my student lounged in as he wrote in his field journal. Even though the fall rains have finally come and quenched those coals in a massive uprising of smoke and steam, the forest has been transformed. A return to shade-riven antiquity will require centuries.



Old Growth trail, Lookout Creek, 2016. Tom Titus

The researchers at HJA know a lot more than I do. Several of them have seen their careers literally go up in smoke. In an excellent article for the *Seattle Times*, reporter Linda V. Mapes details some of their losses (<https://www.seattletimes.com/seattle-news/environment/decades-of-research-burned-in-this-oregon-forest-now-it-could-hold-clues-to-wildfire-mysteries/>). Says Stan Gregory, who spent 35 years researching coastal cutthroat trout

and who has presented for ENHS: "It's a really deep sense of sadness and loss. I mean, it was a gut punch right from the beginning." Renowned plant ecologist Jerry Franklin, now 87 years old, states his truth even more poignantly: "I really wish it had waited until I died. I really would rather not have had to live through this." Despite all the loss, there remains a genuine excitement for what scientists can learn by studying a regenerating forest. Matt Betts, principal investigator of the Long Term Ecological Research program and previous ENHS speaker, put it this way: "I don't know anywhere on the planet that has had so much long-term data. And now it has had a major fire, so I think it is unprecedented, some of the findings that will be coming out."

Grief comes in many flavors. So does gratitude. The two braid together like a multichannel river traverses a flat valley bottom. Summer of 2022 was my final term teaching Amphibians and Reptiles of Oregon, my last year for reading those honest discourses rising from old trees and amphibians. I'll miss the collective attentiveness of my students, words coined next to water that bubbles and snaps as if to remind us that all life rushes along whether or not we are paying attention. My first mediation along Lookout Creek was dedicated to my friend Richard, who was able to read it before he left this life. Now the shady canyon womb that birthed those words has been utterly transformed, as have the scientists who study there.

Memory is malleable and easily transformed over time. Predictions for the future are even more nebulous. Even though the past and present are out of sync with the here and now, they still feed our sense of gratitude. So for HJA and my students and Richard and the Lookout Creek Canyon that was, is, and is yet to become, know this: I am extraordinarily grateful.

Meditation on Lookout Creek *(for R.L.)*

Whitewater curtain roars over a downed cedar snag, drumming liquid pummeling my ears, roiling the clear pool below, dashing downhill, forking around an oblong boulder, holes like acne scars on young basalt releasing

gas bubbles barely escaping eternity in cold stone.

Creek rejoins itself in mindless continuity, a herd of water molecules tethered by hydrogen bonds strung into a stream, forced by gravity to follow this canyon of the creek's own making, clear as Buddha Mind beneath dead cedar roots, chattering past basalt cobbles broken and smoothed by endless tumbling.

Within this reckless physicality, I park my butt on a piece of mountain worn to roundness by the creek, cool dampness of leftover night creeping into aging bones. A cluster of half-grown nettles smells like green tea mixed with bobcat pee. Moss struggles at my feet, trying to claim space on the stones. I struggle to claim space in this place, space in my mind, space for mindfulness.

Uncertainty enters every pore. Shall I drop my pen and breathe in the effortless endless flow of water? Or keep my brain engaged with fingers, eyes, ears, and skin? I'm wondering, because ...

Who am I to act as conscious interface with this utterly unconscious place, pungent sun dancing through blue tree gap, light and shadow cast on ancient conifers?

Who am I to force human meaning onto acrid nettles, spittlebug spit on fireweed, flat green palms of cow parsnip and thimbleberry, baby hemlocks springing from mother log long dead but still feeding baby hemlocks, slither of coastal giant salamanders stalking quiet pools for crayfish and cutthroat trout, feathery blood-filled gills seeking water-borne oxygen?

Who am I to serve as witness? Yet I must attend to old mountains and trees dying with grace and tranquility, worn down by relentless water and spreading years.

Now you are dying with grace and tranquility, worn down by spreading cells gone feral, cells no longer following the cooperative dance laid down by evolution. When you told us you were leaving, I promised I wouldn't be sad. Yet I am. Because gratitude and grieving are the pool and riffle, the noisy quietude of our lives. Still, I am not paralyzed. You taught me that our time is uncertain, that consciousness is uncertain, that life is spun only from attentive forward movement.

Into this clear pool I'll toss the bright pebble of your life and watch ripples spread outward and disappear into the sweeping current.

Our meeting this month is at our new time and location: 7:00 pm at 221 Allen Hall on the UO campus.

Parking for UO events is available at the UO Physical Plant lot: From Franklin, turn north onto Onyx, go 1 block to the lot. After 6pm, it's open to the public. From the UO Physical Plant lot, cross Franklin Blvd. and walk toward Willamette Hall. At the south end of the courtyard, turn right and walk past the south side of Cascade and Pacific Halls. Allen Hall is west of Pacific Hall. Enter through the east door, go straight ahead and up a flight of stairs. Allen 221 is to the left at the top of the stairs.

VOLUNTEERS NEEDED

Are you interested in natural history? Of course you are; you're reading this page! Would you like to share that interest with others? We need volunteers to help out at the ENHS booth at the **Mt. Pisgah Mushroom Festival, 29 October, from 10 to 5**. Multiple 2-hr slots are available, and you will be paired with an experienced volunteer. **No experience necessary, but enthusiasm is a plus!** Contact Kim at kwollter@comcast.net

Upcoming Events

(for complete listings and details, see individual websites)

- **McKenzie River Trust** <https://mckenzieriver.org/events/#event-listings> or 541-345-2799
Wednesdays, 9–11:30am. Watershed Wednesdays at Green Island. Projects include invasive species removal, habitat care, planting, and tree establishment. [Sign up](#)
- **First Fridays, February–November, 9:30am. Friends of Finn Rock Reach.** Help restore habitat in the middle McKenzie River area. Details for each project are available upon sign-up.

Second Saturdays, March–December, 8am–4pm. Living River Exploration Days at Green Island. Connect with nature in this special habitat for beavers, river otters, and >150 species of birds.

Monday, 30 Oct., 10am–noon. Mammals of Green Island. Explore emergent and forested wetlands for signs of otters, beaver, mink, and other wildlife. Walking tour (1–2 miles) with David Walp.

Saturday, 11 Nov., 1–3:30pm. River Geomorphology Tour at Green Island. How does a river shape the landscape? How do humans impact the upper Willamette River? Walking tour (2–3 miles) with Pat McDowell.

- **Native Plant Society of Oregon, Emerald Chapter** <https://emerald.npsoregon.org/>.

Monday, 16 Oct., 7–9pm. Ancient Grasslands. Presenter: Bart Johnson. In person at Amazon Community Center, 2700 Hilyard St, Eugene.

- **Mt. Pisgah Arboretum** <https://mountpisgaharboretum.com/festivals-events> or 541-747-3817. See the website for more programs and information.

Friday, 20 Oct., 10am–noon. Mushroom Tour. Join August Jackson on an exploration of the fungal diversity at the Arboretum. Members are FREE, nonmembers \$5 per person. Limited to 18 people, preregistration required.

Saturday, 21 Oct., 10am–noon. Family Walk: Magnificent Mammals. Search for our furry neighbors and learn to recognize the signs they leave behind. Members and kids under 4 are FREE, nonmembers \$5 per person.

Sunday, 29 Oct., 10am–5pm. Mushroom Festival. Mushroom exhibits and ID booth, live music, guided nature walks, craft and food vendors, cider pressing, and more. Tickets by presale only. <https://mountpisgaharboretum.org/festivals-events/mushroom-festival/>

Sunday, 5 Nov., noon–5pm. Acorn Harvesting Workshop. Taught by Heron Brae, botanist, and Joe Scott, member of the Confederated Tribes of Siletz Indians. Members \$60, nonmembers \$75. Limited to 12 people, preregistration required.

- **Lane County Audubon Society** www.laneaudubon.org or 541-485-BIRD; maeveanddick@q.com or 541-343-8664

Saturday, 21 Oct. Third Saturday Bird Walk. Time, location, and leader TBA. Check the website.

Tuesday, 24 Oct., 7pm. Tongues, Toes, & Tales of Oregon Woodpeckers—Anatomy & Adaptation, with Steve Shunk. In person and Zoom. Campbell Center, 155 High St., Eugene.

- **Nearby Nature** <https://www.nearbynature.org/> or 541-687-9699, 622 Day Island Rd., Eugene (Alton Baker Park)

Monday, Wednesday, Friday mornings. Wonder Keepers. Preschool program outdoors in our Learnscape.

Tuesdays and/or Fridays afternoons. Natural Neighbors. After-school program outdoors in our Learnscape.

- **Museum of Natural and Cultural History, University of Oregon** <https://mnch.uoregon.edu/museum-home>

Ongoing exhibits: Oregon—Where Past Is Present; Explore Oregon

Tuesday, 17 Oct., 3:30–5pm. With a Good Heart: A Conversation with Myra Johnson Orange, Northern Paiute Basketmaker. Many Nations Longhouse, UO campus.

Thursday, 19 Oct., 6pm. Oregon Origins Project II: Seven Wonders. A musical journey with composer Matthew Packwood and a string quartet from the Oregon Symphony.

Saturday, 28 Oct. Underwater Forests—Oregon’s Kelp Ecosystems. Opening weekend of this exhibit.

- **Friends of Buford Park and Mt. Pisgah** <https://www.bufordpark.org/> or 541-344-8450. See the website for programs and information.

- **WREN (Willamette Resources and Educational Network)** <https://wewetlands.org>

See the website for programs and information.

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To join, fill out the form or go to our website to join and pay electronically. Membership payments allow us to give modest honoraria to our speakers and pay for the publication and mailing of *Nature Trails*. Find us at:
<http://eugenenaturalhistorysociety.org/>
and
https://www.youtube.com/channel/UCEr_yzVh9lw9y-nLS_t94BVw

Eugene Natural History Society
P.O. Box 5494
Eugene, OR 97405

Monthly meetings:

When: September–May:
third Friday; December:
second Friday

Where: **221 Allen Hall**
(UO campus) and/or on
Zoom

Time: **7:00 pm**
See our website for details.
[http://eugenenaturalhistory
society.org/](http://eugenenaturalhistory
society.org/)

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Website: Tim Godsil tgodsil@uoregon.edu

Nature Trails editor: Kim Wollter kwollter@comcast.net

2023–2024 Speakers and Topics

20 Oct.	Dave Wagner	Natural History of the Himalayan Foothills
17 Nov.	James Cassidy	Soil Science
8 Dec.	Gina Reverdy	Mt. St. Helens Recovery and Bird Life (cosponsored with the Lane County Audubon Society)
19 Jan.	John Postlethwait	Antarctic Fishes: Icefishes Are Nice Fishes
16 Feb.	Ryan Tucker-Jones	Soviet Whaling and Science
15 Mar.	Ron Larson	Natural History of Belize
19 Apr.	Lincoln Best	Plants and Pollinators (cosponsored with the Native Plant Society of Oregon)
17 May	Marli Miller	Amazing Geologic Sites in Oregon