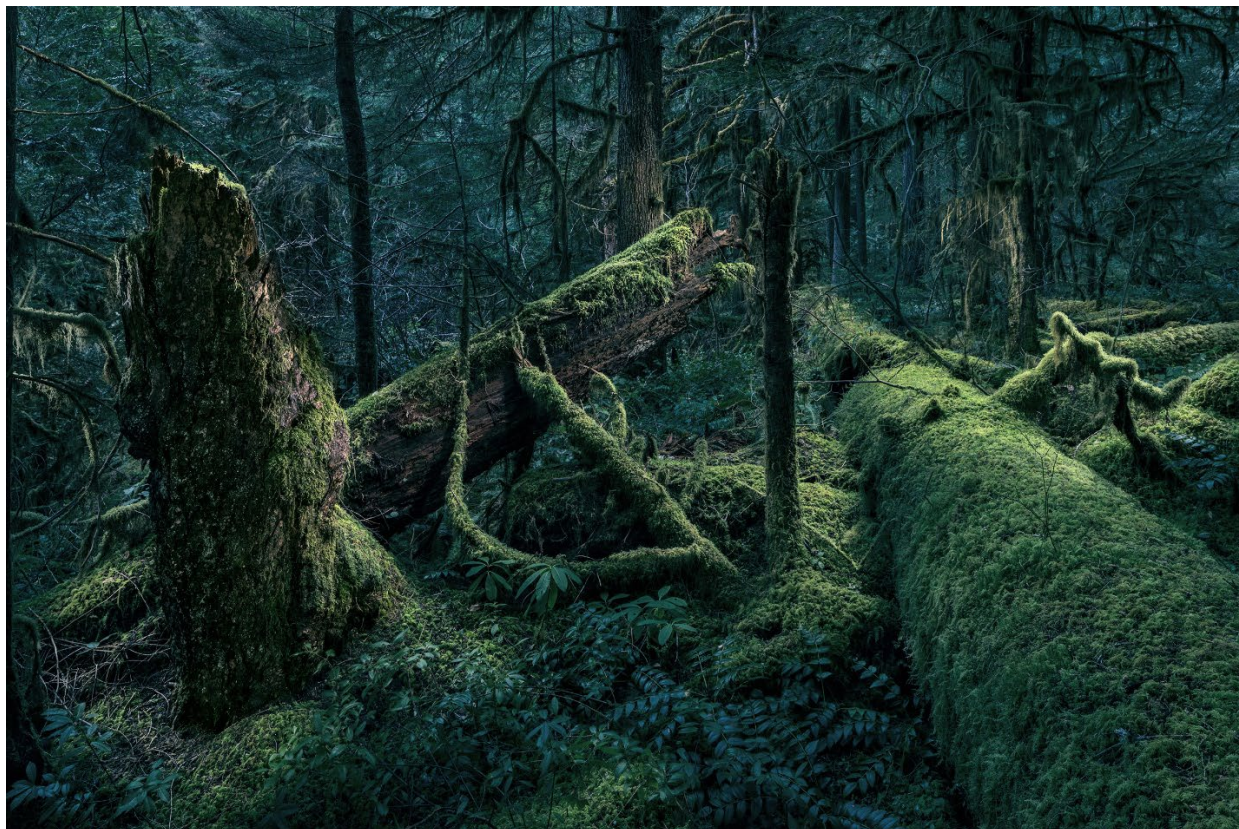


# Nature Trails

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The Eugene Natural History Society is based out of the traditional homelands of the Kalapuya peoples, most of whom are citizens of the Confederated Tribes of Grand Ronde and the Confederated Tribes of Siletz Indians. These Indigenous people stewarded this land for millennia and continue to play an active role in local communities. We commit to supporting the many Tribes and Indigenous scholars and organizations working to shape the future of these lands and waters that we mutually cherish.



## In Trees I Trust

**David Paul Bayles**

Photographer  
Philomath, OR

**Friday, 21 February 2025, 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 **7:00** in **221 Allen Hall, University of Oregon campus**. The Zoom lecture link is <https://zoom.us/j/97499095971?pwd=eE9sdG9hSHMvOHhIUEJuU21wT20rdz09> or see our website at <https://eugenenaturalhistorysociety.org/>

## This Month's Speaker: David Paul Bayles



Photographer David Paul Bayles loves trees. He loves forests, too. Perhaps ironically, he also loves wood and the people who are fundamentally responsible for providing that wood. His spacious studio is a renovated pole barn next to his house in the eastern foothills of the Coast Range, where one is held by the warmth of the wood. Horizontal slabs of live-edge Douglas-fir back his photographs hanging from high walls. Windowsills are also live-edge lumber, the gentled undulating margins occasionally interrupted by a smoothed-off knot. All of the lumber for this renovation came from second-growth Douglas-fir trees that fell on his property during a winter storm; the lumber was cut onsite with a portable sawmill. The personal pathway that has led to David's love of wood and trees and people, eventually becoming a regionally renowned forest photographer, is fascinating. His story speaks to the power of personal transformation that comes from being open to the possibilities life places before us.

David was born in north-central Oregon in Kent, little more than a wide spot along Highway 97 in Sherman County. His father was a fundamentalist Christian preacher, an occupation that took his family to several out-of-the-way towns in eastern California and Oregon where he was tapped to start churches. Eventually the family landed in Los Angeles where David would grow up and graduated from high school. He then enrolled at Moorpark Community

College near Thousand Oaks where he took an introductory class in photography. David laughs that he fell in love twice during that class—with the darkroom and with his darkroom partner. Nothing came of the human relationship (he says they were both too shy), but his love for capturing images became a life-long passion.

His intended next step was professional photography school. David identified Brooks Institute of Photography in Santa Barbara as his best option, but the cost was prohibitive for a middle-class kid from the suburbs. To enroll he would need to make a lot of money in a short period of time. After evaluating his options (e.g., Alaskan fishing boats and canneries), he decided to move from Los Angeles to the Sierra Nevada mountains and become a logger (yes, you read that correctly). His first job was a two-week stint with a salvage logger, after which he went to work for a man he referred to as the *best logger in the county*. David came to love logging so much that he chose to stay on for four years.

He couldn't have known that a moment of transformation was at hand—a near miss with a giant sugar pine log that chose to obey the laws of gravity and begin rolling at exactly the wrong moment. Ideas around the interactions between trees and humans began to swirl. He then left logging and entered photography school. However, his technical training was focused on making a living with photography, which meant doing commercial work. But the trees kept niggling at him in personal encounters that spoke to the disconnect between people and forests, a gap that he would later choose to bridge.

David returned to Los Angeles and opened a portrait studio in Seal Beach. Although his life needs required the financial remuneration of commercial photography, he was drawn toward photography as an art form. He was looking for something that, in his words, *would feed myself and feed my soul*. He began shooting abstract color close-ups and pictures that juxtaposed trees and the built world around Los Angeles. He had no particular goal in mind other than listening to what the photos had to say. David also became environmentally active in response to the issues of the times, reading Rachel Carson and marching to protest the Exxon-Valdez oil spill. The so-called Timber Wars erupted, commanding national headlines. Despite his

environmentalist leanings, his own experience working in the woods led David to feel that the portrayal of loggers by the national media was unidimensional and needed another perspective. He developed the exhibit “Long Days, Long Hours, Hard Work: Photographs of the 20th Century Logger,” which combined pictures and taped interviews with loggers. From 1989 to 1992, the exhibit travelled to various museums throughout redwood country in northern California, culminating in a 1992 showing at the World Forestry Center in Portland.

Despite these successes and many others, David had published no books and had no intention of doing so. Then came an encounter at the Seal Beach studio with a contributing writer for the *Los Angeles Times* who happened to be heading to a national writers conference. After perusing David’s work, he asked for prints from the nearly 20-year accumulation of photos that highlighted tree–human interactions in Los Angeles so that he could pitch the idea of a book. Sierra Club Books rolled out the red carpet. To David’s amazement the editor-in-chief chose to become his primary editor for the project, and she eventually printed an unprecedented 10,000 copies of *Urban Forests: Images of Trees in the Human Landscape*. The book would eventually be chosen by the *Christian Science Monitor* as one of their seven favorite books of 2003.

Eventually David closed the Seal Beach studio and moved to Oregon, where his photographic “voice” continued to mature. His tree themes expanded. He began photographing the cyclic nature of clearcuts in the immediate vicinity of his new home in the foothills of the Coast Range and how the insects chewing on his woodpile made designs similar to human tree carvings. Then came another bend in the trail, another view. His photographic contribution to the exhibit “ROT: The Afterlife of Trees” at the Arts Center in Corvallis led to meeting Mark Harmon, the person who birthed the 200-year-long log decomposition study at the H. J. Andrews Experimental Forest near Blue River. This led to a connection with Fred Swanson, then director at HJA and well known to the ENHS. Fred and David hit it off spectacularly, and they began collaborating. In 2018 David undertook an artistic residency as part of the HJA Long-Term Ecological Reflections program

that culminated in the project “Old Growth Dialog” (<https://www.davidpaulbayles.com/old-growth-dialogue-1>). The photographer who once logged and who still reveres the tenacity and craft of hands-on loggers had this to say: *When I entered the magnificent ancient forest that is the centerpiece of the Andrews, I was overwhelmed by the feeling of being at home. Not a physical home but a deeper, more spiritual home.*

The collaboration between David and Fred continues, especially in the study of fire and its aftermath. After the 2020 Holiday Farm Fire roared down the McKenzie River Valley, the duo was compelled to begin capturing the recovery process as soon after the burn as possible. They were shut out of HJA because of safety concerns. However, the McKenzie River Trust welcomed them to begin documenting the changes in the burned areas of nearby Finn Rock Reach and the Blue River Conservation Easement. Then in 2023 the Lookout Fire burned about two-thirds of HJA, transforming much of that forest into a fire recovery laboratory. David confesses to feelings of guilt around these projects. He has been forced to reconcile his artistic sense of beauty in the burned landscapes with the human devastation the fires have caused. This is not an easy reconciliation for someone who has dedicated much of his career to the interaction between people and forests. The Bayles/Swanson collaboration has now been formalized in the exhibit “Following Fire: A Resilient Forest/An Uncertain Future” (<https://www.followingfire.com/>) at the World Forestry Center in Portland. The display will be up through March 30.

David is excited about the outwardly rippling possibilities of “Following Fire.” So far the exhibit has spawned a panel discussion among theologians and philosophers centered on spirituality in nature. A high school choir has been invited to the exhibit, after which they will write poems inspired by David’s photography. The poems will be adapted into lyrics and set to music through a collaboration between the nonprofit organization Third Angle New Music and the Oregon Repertory Singers. One can only wonder at the future possibilities for “Following Fire” and the works that will spin out from it. Their intention is to continue tracking fire



recovery at these sites for as long as possible and then hand the work off to the next generation.

Listen and watch as this highly accomplished and acclaimed photographer of trees and forests speaks in 221 Allen Hall on the UO campus on Friday, February 21 at 7 p.m. His topic? “In Trees I Trust.” In David’s words, his talk will encompass the following:

*Through personal stories and images I’ll weave a thread through five bodies of work. I’ll share where the inspiration came from and the process that followed to bring the work to life. Folks will see that my physical, spiritual, and photographic lives are woven together as I hope to learn from the trees and forests that surround me.*

Try to attend in person. Although we have made numerous technological breakthroughs in

transmitting our lectures via Zoom, we have not figured out how to broadcast digital cookies! Also, David will have some of his wonderful books on hand for sale. If you can’t make it in person, by all means Zoom in from the link at our ENHS website

(<https://eugenenaturalhistorysociety.org/>) or directly from this Zoom link:

<https://zoom.us/j/97499095971>

Finally, don’t miss out! David and Fred will be leading a **joint field trip** to their study sites at Finn Rock Reach and H. J. Andrews Experimental Forest on Saturday, March 1. We’ll be leaving Eugene from the northeast corner of the South Eugene High School parking lot at 9 a.m. Bring boots, warm clothes, and lunch. —Tom Titus

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## Bees on the Move by August Jackson

This is a short story about indigenous peoples, the cultivation of squash, and the tenacious little bees that faithfully followed.

Though squash were likely part of the forager diet for some time prior to domestication, breeding and cultivation began with *Cucurbita pepo* somewhere around 10,000 years before present in modern-day Mexico, where squash diversity is at its maximum. A second species, *Cucurbita moschata*, was cultivated several thousand years later in coastal South America. Most culinary squashes, from the kusa squash of Palestine to the kabocha pumpkin of Japan, are derived from species native to the Americas, none of which produced particularly appetizing fruits in their ancestral forms.

Wild *Cucurbita* fruits are distinctly bitter due to triterpenoid compounds known as cucurbitacins. These compounds deterred herbivory by small mammals while favoring dispersal by megafauna, which lacked the compatible taste receptors for the bitter compounds and had a body mass high enough to tolerate the toxins (and a digestive system large enough to pass the seeds). Megafaunal extinctions appear to have led to range restrictions and declines in wild squash populations, which were eventually rehabilitated, in part, by human agriculture.

The historical native range of *C. pepo* extended from Mexico into the southeastern

United States, where a subspecies was independently domesticated about 5,000 years ago, giving rise to new varieties, including acorns and crooknecks. Along with corn and beans, these squash varieties would form the “three sisters” agricultural complex, which became foundational to tribal cultures across the eastern United States. It was this agricultural revolution that seems to have spurred the rapid northward expansion of the squash bee, now one of the most widely distributed native bee species in North America.

There is a rich diversity of life histories among bees, but all bees are united in their larval diet requirement of provisioned pollen. The value of this pollen is negligible for some bees, but of strict importance for others. Squash bees have evolved to feed on only the pollen of *Cucurbita* species, and aspects of their biology are uniquely adapted to their host plants. The pollen-carrying hairs of females are more widely spaced to accommodate the large pollen grains, and the early morning blooming of squash flowers means these bees are active in the cooler morning hours when most other bee species are still at rest. Before the flowers close, the male bees will tuck into the blossoms for the rest of the day and night. Among the several thousand bee species found in North America, few have as intimate a relationship with a cultivated crop species, and none appear to have so significantly

expanded their range in response to changes in human culture.

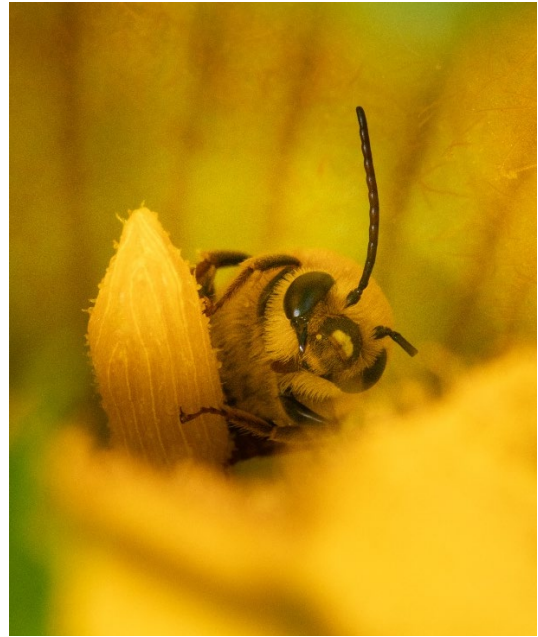
With an impressive diversity of squash species native to the Americas, it is not surprising that a number of bee species have evolved to specialize on their pollen, but these squash bees are largely still restricted to the native ranges of their hosts, and most haven't (yet?) moved northward. Our bees, *Xenoglossa pruinosa*, have recently been transferred out of the genus *Peponapis* and merged with the other squash bees in the genus *Xenoglossa*. The genus name *Peponapis* is a reference both to the specific epithet of *C. pepo* and to the botanical term "pepo," which refers to the hard-rind fruits produced by the squash family. It's a small linguistic tragedy to lose that name to taxonomic reshuffling, but so it goes.

The other squash bees in the genus *Xenoglossa* show higher fidelity to a variety of different *Cucurbita* species depending upon their geographic range. Before adjusting to the rapidly expanding populations of *C. pepo*, *Xenoglossa pruinosa* appears to have been most strongly associated with the buffalo gourd (*Cucurbita foetidissima*), which in its native range extends from the xeric regions of central Mexico, up into California's Central Valley in the west, and to the Great Plains in the east. The switch to *C. pepo* allowed for the northward and eastward range expansion of *X. pruinosa*, but the species remains faithful to the buffalo gourd.

In fact, genetic diversity in *X. pruinosa* populations is highest in their ancestral range where they still associate with *C. foetidissima*, and unsurprisingly populations become progressively more genetically homogenous as they spread north and east, now all the way into southern Quebec, further and further from their source population. A separate and genetically distinct subpopulation moved northward west of the Continental Divide into the Great Basin and central California. There is a history of squash cultivation among the Fremont culture in Utah but none extending far into California. The expansion of squash bees along the west coast is more recent and remarkably quick.

*Xenoglossa pruinosa* was first discovered in southern Oregon nearly a decade ago. Subsequent surveillance through the Oregon Bee Project has tracked its patchy but progressive

movement northward across the Rogue-Umpqua divide and into the Willamette Valley. By 2021, squash bees were recorded as far north as Roseburg and Winchester, and one population was found near Fern Ridge Reservoir outside of Eugene. Subsequent searching in the Eugene area didn't turn up any more populations until the summer of 2024, when they were found to have expanded around Fern Ridge and into Pleasant Hill and Springfield. I found a male and female visiting my backyard zucchini on a Sunday morning in early August.



Male *Xenoglossa pruinosa* in zucchini flower. August Jackson

The zucchini form of *C. pepo* was developed in Renaissance Italy after the species was brought to Europe as a novel crop. It was popularized as a distinct variety in the early 20th century in California, which is now a national leader in squash production. In other words, a crop domesticated by indigenous cultures in the Americas became incorporated into cuisines across the world, where it was regularly shaped into new varieties, some of which returned to the Americas and aided in the proliferation of a bee species that has relied on squash for perhaps millions of years. As squash cultivation advanced in California, the crop moved outside of the native range of *C. foetidissima*, and as they did in the eastern United States, squash bees followed, traveling approximately 400 miles outside of their native range in as little as a century. I don't believe they're stopping anytime soon.

Very little is currently known about the natural dispersal ability of bees. They're small, often cryptic, and difficult to identify, and for most species the full extent of their ranges has not been clarified. The squash bees represent a singular opportunity to monitor the natural dispersal of a bee species while we are, for the

moment, at the leading edge of its migration. Recording them is easy. Simply wait for squash season, snap photos of bees in squash flowers, and upload the photos to <https://extension.oregonstate.edu/master-melittologist/squash-bee-survey>.

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### Upcoming ENHS Fields Trips

- March 1.** This month's speaker David Paul Bayles, Fred Swanson (retired director at H. J. Andrews Experimental Forest), and a representative from the McKenzie River Trust will lead a field trip to the MRT restoration project at Finn Rock Reach and to the H. J. Andrews facility to see how fire recovery is progressing there. Meet at South Eugene High School, northeast corner of the parking lot, 9am. Bring lunch and water.
- April 5.** Join our own Tom Titus and Stan Sessions for a salamander foray along the Siuslaw River in the Coast Range. Meet at South Eugene High School, northeast corner of the parking lot, 9am. Bring lunch and water.

### 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.** Every Wednesday. Projects include invasive species removal, habitat care, planting, and tree establishment. [Sign up](#)  
**First Fridays, 9:30am–noon. First Fridays at the Willamette Confluence.** Help care for this special area where the Middle and Coast Forks of the Willamette River meet. Projects vary season by season. Registration limited.  
**Sunday, 23 Feb., 3–5pm. On This Land.** Local authors and poets read their works for the Winter Writers Series. Tsunami Books, Eugene.
- **Native Plant Society of Oregon, Emerald Chapter** <https://emerald.npsoregon.org/>  
**Monday, 17 Feb., 7–9pm. Creating Backyard Habitat to Benefit Nature in Our Yards and Community.**  
Speaker: Barb Bryson. Amazon Community Center, 2700 Hilyard, Eugene.  
**Anytime. Self-guided Tour of Laurelwood Bog.** Go south on Agate St. in Eugene to the dead end at 29th. The entrance to the Bog is clearly signed, and the trails are covered with bark.
- **Mt. Pisgah Arboretum** <https://mountpisgaharboretum.com> or 541-747-3817.  
**Tuesdays, Thursdays, and the 1st and 3rd Saturdays, 9am–noon. Nursery and Trails Workparties.** Tools, gloves, parking pass provided. Bring water.  
**Saturday, 15 Feb., 10am–noon. Frogs and Friends Family Tour.** FREE for Arboretum members and kids; \$5 for nonmembers. Preregistration required. [Click here](#) to sign up!  
**Sunday, 16 Jan., 10am–noon. Winter Twig Tour.** FREE for Arboretum members and kids; \$5 for nonmembers. Preregistration required. [Click here](#) to sign up!  
**Saturday, 22 Feb., 9am–noon. Water Garden Graveling Workparty.** Tools, gloves, parking pass provided. Bring water.
- **Lane County Audubon Society** [www.laneaudubon.org](http://www.laneaudubon.org) or 541-485-BIRD; maeveanddick@q.com or 541-343-8664  
**Saturday, 15 Feb. Third Saturday Bird Walk.** Open to all. Contact [tolalla@gmail.com](mailto:tolalla@gmail.com).  
**Saturday, 1 Mar. First Saturday Bird Walk.** Contact Sarah at [1stsaturdaybirdwalks@laneaudubon.org](mailto:1stsaturdaybirdwalks@laneaudubon.org)  
**Tuesday, 25 Feb., 7–8:30pm. What Defines a Seabird?** Presenter: Tim Shelmerdine, Oregon Pelagic Tours. Seabirds near the Oregon coast. Zoom and in person, Campbell Community Center, 155 High St., Eugene.

- **Lane County Butterfly Club** <https://www.lanebutterflies.org>  
Find all of Lane County's more than 90 species with these guides:  
<https://www.butterfliesoforegon.com/resources-books>
- **Museum of Natural and Cultural History, University of Oregon** <https://mnch.uoregon.edu/museum-home>  
**Ongoing exhibits:** Explore Oregon—Where Past Is Present; Underwater Forests—Oregon's Kelp Ecosystems; Capturing the Cosmos: Images from the James Webb Telescope  
**Friday, 21 Feb., 6–7:30pm. Roots and Resilience: Chinese American Heritage in Oregon.** Public reception for this new exhibit.  
**Thursday, 6 Mar., 5:30–7pm. Meet an Archeologist.**  
**Thursday, 13 Mar., 6pm. Indian Boarding Schools. Salvage Anthropology and Basketry Collections from Ada Bradley Millican and Harwood Hall.** David Lewis and Vera Keller explore this collection in relation to the erasure of indigenous culture and the arts and crafts movement.  
**Saturday, 15 Mar., 10am–5pm. Ice Age Giants.** Family day. Explore fossils, bones, and teeth. Activities and snacks provided.
- **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.  
**Tuesday, 11 Mar., 6–7:30 pm. Spring Volunteer Information Session.** Learn about leading school nature walks in Alton Baker Park and other Nearby Nature volunteer opportunities. Visit our [Volunteer](#) page to fill out a Volunteer Questionnaire before you come (or if you can't make it!) so we can learn more about your skills and interests. Meet at the Nearby Nature yurt in Alton Baker Park.

## ENHS MEMBERSHIP FORM

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Address \_\_\_\_\_

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Please choose: receive *NT* by e-mail  or by USPS

**Remember: Electronic copies come to you in **color** with live links and save paper and postage!**

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### ANNUAL DUES:

Individual	\$15.00
Family	25.00
Life Membership	300.00
Other Contribution	_____

Make checks payable to ENHS or pay electronically on our website →

Mail checks to:

ENHS  
P.O. Box 5494  
Eugene, OR 97405

Fill out the form or go to our website (see QR code below) to join and pay by check or electronically. Membership payments allow us to give modest honoraria to our speakers and pay for the printing and mailing of *Nature Trails*. Find us at:

<http://eugenenaturalhistorysociety.org/>

and

[https://www.youtube.com/channel/UCErVzVh9lw9y-nLS\\_t94BVw](https://www.youtube.com/channel/UCErVzVh9lw9y-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 at  
<https://zoom.us/j/97499095971?pwd=eE9sdG9hSHMvOHhIUeJuU2lwT20rdz09>

Time: 7:00 pm

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. See our website for more details.  
<http://eugenenaturalhistorysociety.org/>

**ENHS Officers and Board Members 2024–2025**

President: Stan Sessions [sessions@hartwick.edu](mailto:sessions@hartwick.edu)

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Secretary: Monica Farris

Treasurer: Judi Horstmann [horstmann529@comcast.net](mailto:horstmann529@comcast.net)

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Website: Tim Godsil [tgodsil@uoregon.edu](mailto:tgodsil@uoregon.edu)

*Nature Trails* editor: Kim Wollter [kwollter@comcast.net](mailto:kwollter@comcast.net)

**2024–2025 Speakers and Topics**

20 Sept.	Patty Garvey-Darda	<b>Why Did the Ecosystem Cross the Road?</b>
18 Oct.	David Mildrexler	<b>An Enduring Conservation Vision for the Blue Mountains Ecoregion</b>
15 Nov.	David G. Lewis	<b>Tribal Histories of the Willamette Valley: Reconstructing Traditional Environments</b>
13 Dec.	Michael Murphy	<b>The Modern Bird World ... Living for the City</b> (co-sponsored with the Lane County Audubon Society)
17 Jan.	Charles Lefevre	<b>Diversity and Domestication of North America's Native Truffles</b>
21 Feb.	David Paul Bayles	<b>In Trees I Trust</b>
21 Mar.	Nina Ferrari	<b>Into the Third Dimension: Understanding Vertical Distributions of Birds in Old-Growth Forests</b>
18 Apr.	Sara Hamilton	<b>Taking Care of Oregon's Kelp Forests</b> (cosponsored with the Emerald Chapter of the Native Plant Society of Oregon)
16 May	Clara Bird	<b>Gray Whale Foraging Behavior</b>