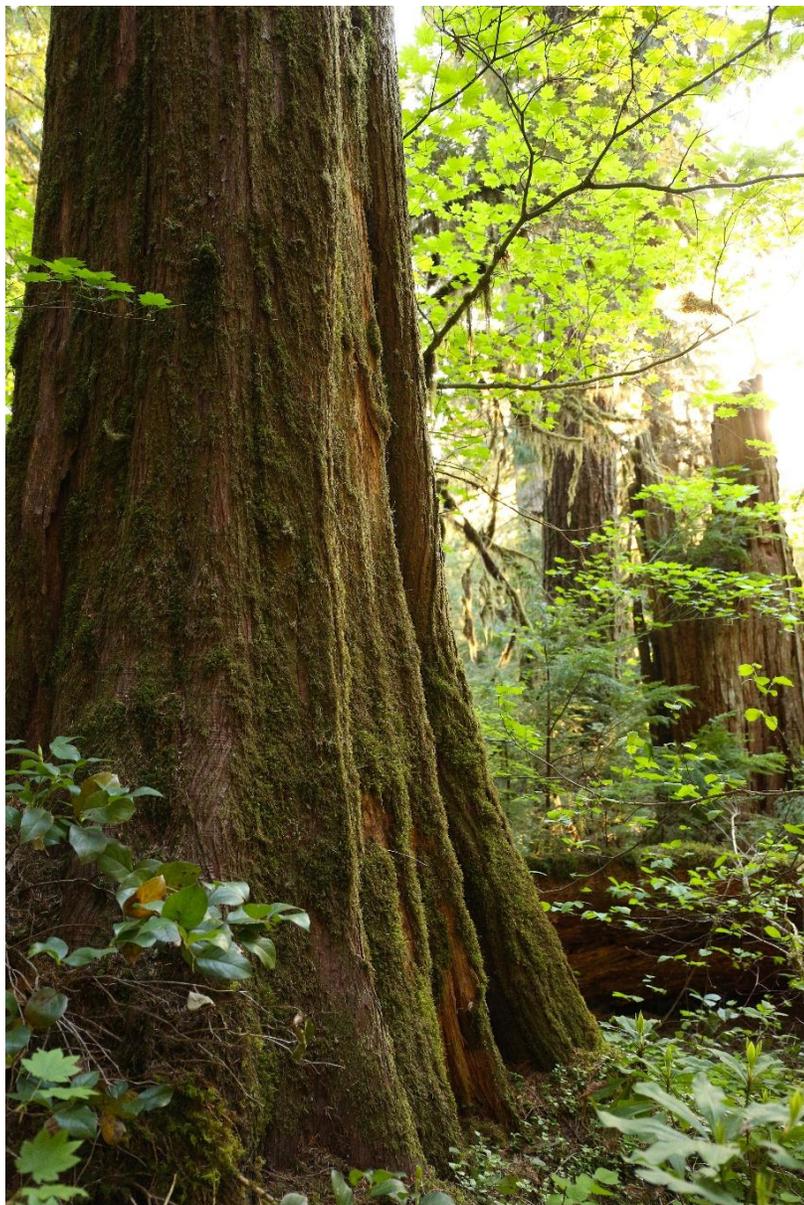


# Nature Trails

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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.



H.J. Andrews Experimental Forest. *Matt Betts*

## **Can We Have Our Cake and Eat It Too? Conserving Forest Biodiversity in the Age of Humans**

**Matthew Betts**

**Department of Forest  
Ecosystems & Society  
Oregon State University  
Corvallis**

**Friday  
21 November 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.** **Snacks provided!** The Zoom lecture link is <https://zoom.us/j/97499095971?pwd=eE9sdG9hSHMvOHhIUeJuU21wT20rdz09> or see our website at <https://eugenenaturalhistorysociety.org/>

## This Month's Speaker: Matt Betts



Matt Betts grew up in rural New Brunswick, Canada. As a youngster he was attracted to natural settings, especially forests. After high school in New Brunswick, Betts attended Queens University in Kingston, Ontario where he studied environmental policy. He put himself through school by working summers for a commercial timber operation, planting trees in northern New Brunswick and northern Ontario. His initial career plan, in which he would influence forest management through the political and legal arenas, gradually changed with these life experiences. During those summer jobs he saw the effects of commercial logging firsthand. He began to appreciate that commercial forestry practices could have dramatic effects on wildlife species. After graduating with a degree in political science from Queens University, he took a year off from higher education. He visited National Parks in Canada, the United States, and Mexico. His focus now more defined, Betts enrolled in the University of Waterloo in Ontario and received his M.S. degree in environmental planning. He then put his academic and work experiences to the test, working for two nongovernmental organizations—the Nature Trust of New Brunswick and the Conservation Council of New Brunswick.

His experience with these NGOs convinced him that his credibility as a critic of the New Brunswick forest industry would be enhanced if he learned more about forestry management practices. He went back to school at the University of New Brunswick (UNB) and

obtained a second bachelor's degree, this one in forest management. He stayed at UNB for his Ph.D., for which he studied the effects of forest fragmentation on songbird populations. During his tenure as a graduate student, he worked full time for the Greater Fundy Ecosystem Research Group and published a book on forest management for biodiversity conservation in the forests of eastern Canada. His degree, granted in 2005 by the Faculty of Forestry and Environmental Management at UNB, is in forest ecology.

Following a 2-year postdoctoral fellowship at Dartmouth College in New Hampshire, Betts took a faculty position at Oregon State University in 2007. He is now in his fifth year as the third holder of the Ruth Spaniol Endowed Chair of Renewable Resources. He has also served for 5 years as the principal investigator for the H.J. Andrews Experimental Forest Long-Term Ecological Research Program.

Betts's research group currently numbers 10: 5 postdocs and 5 graduate students. During the 18 years he has been at OSU, 34 individuals have passed through his group, many of whom have gone on to important careers of their own. His research has been continuously funded by the National Science Foundation (NSF). His publications are numerous and insightful.

His research focuses on forest biodiversity. What plants naturally occur in the forest? What keeps them healthy? What natural pressures do they contend with? What animals depend upon the forest? Are they thriving, or are environmental changes imperiling their continued existence? And, of course, here in the Pacific Northwest as in many forests around the world, how is human activity impacting this diversity? Can forests in our area survive while continuing to be a lumber source? Issues that his group grapple with include how to conserve diversity in a forest that may be under pressure to provide lumber for human uses, the ecosystem services provided by forests, and the ecological processes that affect plant and animal distributions.

This work is why the H.J. Andrews Forest is so important. The Long-Term Ecological Research Project was instituted by NSF in 1980. The Andrews Forest is 1 of 27 sites in the United States that have been under continuous scientific

scrutiny for 45 years. Think about it. Forests, grasslands, deserts, wetlands, and other natural ecosystems are dynamic. How can we say we know what these ecosystems should look like if we only observe them for 1 year? Or 5 years? What if the 5 years were all wetter than normal? Or dryer? Planners would have a jaundiced view of their normality, and their plans might well fail over a longer time span, when rainfall reverted to a more normal range.

In 2023, the Lookout Fire burned 70% of the Andrews Forest. A tragedy? Yes and no. The immediate loss was devastating. In the long term (ahem), though, this burn was bound to happen. In the fire's aftermath, scientists working there have a unique natural experiment on their hands. How does a natural forest recover from catastrophic fire? Which plants will come back first? Will the distribution of taller plants eventually resemble what it was before the fire? Will the animal species that were there come back, or will they be replaced by different species? I look forward to learning what the researchers find out. (H.J. Andrews is open to the public. Check this site for details: <https://andrewsforest.oregonstate.edu/about/visit> or)

Betts conducts his research in Oregon and across the United States, Central and South America, and Canada. He clearly takes seriously the outreach aspect of his appointment. He has been making his findings accessible to the lay public around the world. In an interview he gave to Jefferson Public Radio, he described his group's finding that passerine birds eavesdrop on neighbors' songs and that the timing of those songs within a breeding season can affect the

location of the nests of the eavesdroppers in the subsequent year! His explanation was clear; his quiet excitement contagious. He is still pursuing aspects of his bird research, including further study of marbled murrelets. His work has been featured in popular outlets such as the *New York Times*, *Seattle Times*, *Nature*, National Public Radio, the Canadian Broadcasting Corporation, and the British Broadcasting Corporation.

In his own words, Matt will "summarize 20 years of research focused on forest biodiversity and management in the tropics (Central and South America) and the temperate zone (Canada, Oregon, New Hampshire). This will include work focused on (1) how herbicides and intensive forest management affect biodiversity and ecosystem services, (2) the role of old-growth forests in helping to protect forest microclimates, (3) the importance of primary forests for biodiversity globally, as well as major threats to these systems. The presentation will be in the context of global forest policy and current trends in human populations and consumption rates."

Join us in room 221 Allen Hall on the UO campus at 7 pm on Friday, 21 November to hear Matthew Betts speak. The title of his presentation is "**Can We Have Our Cake and Eat It Too? Conserving Forest Biodiversity in the Age of Humans.**" The cookies will be there.

If you can't join us in person, by all means connect on Zoom: <https://zoom.us/j/97499095971?pwd=eE9sdG9hSHMvOHhIUEJuU21wT20rdz09> or join from our website at <https://eugenenaturalhistorysociety.org/>

—John Carter

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## **No Surprise** by Reida Kimmel

Most of our 6 acres of land is a wetland. Two creeks run through it, and there is a pond whose inflow and outflow are seasonal creeks. In our abandoned pastures and along the water courses, there are abundant Oregon ash trees (*Fraxinus latifolia*). Below the pond are growing a white oak and our largest ash; together they are huge, dominating the view. Closer to the pond, the ash is rather unapproachable. Years of massive branch falls in snowy winters, never tidied, make tree hugging impossible. Today the top third of

this ash is golden, the lower branches already faded to cinnamon buff. Later in the winter a great horned owl will call from this tree. Downstream from the giant, a small, perfectly symmetrical young ash grows, rescued from blackberries, a graceful spirit, reaching high to gather the scarce sunshine. This tree is just turning brilliantly gold. This lack of synchrony is the same with all our ash trees. Two of the trees along the creek north of the house that were blindingly brilliant 2 weeks ago are now a



subdued tan, whereas three other tall trees, their close neighbors, are wearing their wow factor hues this afternoon. We really love our ash trees.

Oregon ash is the only native ash species on the West Coast. Its range stretches from coastal

British Columbia south through western Washington and Oregon and into California. It is also found in central California's Sierra Nevada. The trees are dioecious. Both sexes of trees are needed to produce fertile seeds. Oregon ash thrives in wet and heavy soil and tolerates long periods of standing water. The trees demand sun and are among the first to colonize disturbed areas, regrowing from fire-killed trees and logged stumps, only eventually to be shaded out by other species such as bigleaf maple (*Acer macrophyllum*) and grand fir (*Abies grandis*). Ash can grow 65–80 feet in height and 30 inches in diameter. Such a giant can have a lifespan of 100–150 years. But what good is an ash? It is not glamorous, and its wood has little commercial value beyond firewood, baseball bats, and thwarts and oars for canoes. However, this humble weedy tree has tremendous ecological value as habitat for all sorts of insect and vertebrate species. Its winged seeds, shaped like little canoes, feed all sorts of birds and rodents in the winter. Deer find its leaves and twigs good forage. But its greatest contribution is the shade it provides. Along the creeks and quiet shallow tributaries of big rivers such as the Willamette, the ash trees provide the shade that cools the water where young fish can shelter, feed, and grow. The trees also act as windbreaks. Roots hold soil, slow erosion, and preserve wet places so vital to aquatic life. Leaves and insects provide nutrients to support small growing fish. Ash trees are truly vital. And endangered.

The enemy is the emerald ash borer (*Agrilus planipennis*; EAB), and most people have heard at least a little about this deadly threat to all of America's ash trees. Introduced into the country by wood shipped from northeastern Asia, probably as ballast or shipping crates, the borers surviving the journey quickly located compatible ash trees in Michigan to continue their life cycle; the trees they encountered, like all American and European ash trees, had no natural resistance to these pests. EAB eggs laid on the ash trees become larvae that tunnel under the bark to feed for 1–2 years on the rich cambium and xylem layers of the living ash, the tree's circulatory system. As they feed, the larvae destroy the flow of nutrients, thus killing the tree. EABs were detected in Michigan in 2002, only 23 years ago. Since then hundreds of millions of ash trees of

various native and introduced species have died, devastating forests and urban planting from the Great Lakes region in the Midwest into Ontario, Canada, south to northern Louisiana, west to Nebraska, and east to New Brunswick. Five spaces of our native ash trees are now considered endangered.



Emerald ash borer. Leah Bauer, US Forest Service, Northern Research Station

The Pacific Northwest's Oregon ash seemed immune. But not so. In 2022, Dominic Maze, a zoologist with the city of Portland, found EABs in wood from a decorative planting in Forest Grove. As of this year, the EAB has been detected in Multnomah, Marion, Clackamas, and Yamhill Counties and in Oregon City. Wyatt Williams, invasive species specialist for Oregon's Department of Forestry, predicts that all of the ash woodlands will be dead in 10 or at best 30 years.

Is there any hope? Yes there is. Finding and propagating resistant trees is a priority. One naturally resistant tree has been found in Ohio. Caught totally unawares, forest specialists in the Midwest did not save seeds and propagate them in mass plantings to search for resistance. But biologists in the Northwest, forewarned, started saving seeds in 2019, sending nearly a million to long-term storage facilities and planting trial plots at the U.S. Forest Service's Dorena Genetic Center in Cottage Grove, where many thousands of young ash trees will grow until infected by the EAB. Some will show resistance and will continue to grow, and their seeds will be saved for returning the trees to the ecosystem.

Do EABs have any natural enemies? Woodpecker species such as our downy and hairy woodpeckers relish them. Parasitic wasps (*Atanycolus* species) lay their eggs on EAB larvae, thus killing them. Infected trees, if

beloved enough, can be saved with insecticides. All of us should be aware, learning to search for signs of EAB in ash trees, and we can prepare now for a near future with far fewer ash trees. Perhaps in future centuries there will be ash forests again, but for now we need to plant other species that tolerate the wet heavy soils that ash trees love, other trees and shrubs that could provide the cool shade, erosion control, shelter, and nutrients that small fish need. I have a list of possibilities, either for your own landscape or for any restoration projects that you may get involved with. I know that these plants work well as waterside plantings here in the Fox Hollow valley. Some are a bit surprising, such as osoberry (*Oemleria cerasiformis*), a lovely spring shrub that can grow 20 feet high when kept damp enough. Various native willow (*Salix*) species are so very beautiful, important, and water tolerant. Red twig dogwood (*Cornus sericea*), bigleaf maple, black birch (*Betula nigra*), Pacific ninebark (*Physocarpus capitatus*), alder (*Alnus* species), cascara (*Frangula purshiana*), and serviceberry (*Amelanchier arborea*) all are able to live with wet soils. And for the water's edge, there are rushes, sedges, and blue flag iris (*Iris versicolor*). Happy planting!

In writing this article, I learned so very much from "Portrait of a Vanishing Tree," Jaclyn Moyer, *High Country News*, October 2025. This beautifully written article is a blend of life experiences and natural history. Kate Samworth's stunning illustrations amaze the eye and cheer the soul.

Editor's note: Don't confuse the EAB with our lovely native and nondestructive golden buprestid beetle (*Buprestis aurulenta*).



Golden buprestid beetle. Harsi, S. Parker CC-BY-NC

**ENHS Special Presentation, 12 December, 7-9pm, Allen Hall**  
Join author and photographer Paul Bannick for the Oregon launch of his new book

*Woodpecker: A Year in the Life of North American Woodpeckers*

Paul will have books to sell and sign.

cosponsored with the Coast to Cascades Bird Alliance

### Upcoming Events

(for complete listings and details, see individual websites)

- **Sunday, 16 Nov., 3–5pm. The Nature of Gratitude.** This annual community gathering explores the diverse aspects of nature and gratitude through live music, spoken word, and photography with Eric Alan, Nisha Calkins, Laura DuBois, Melissa Hart, David Jacobs-Strain, Jorah LaFleur, Don Latarski, Halie Loren, and Tom Titus. **Free.** Unity of the Valley, 3912 Dillard Rd., Eugene.
- **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, Oct.–June. Explore the Willamette Confluence.** See the MRT website for more information.
  - Second Saturdays, Mar.–Dec., 8am–4pm. Living River Exploration Day at Green Island.** We open the gates to this conservation area and welcome our community to explore this special place. Free, no preregistration.
  - Saturday, 15 Nov., 9am–noon. Willow Harvest and Fishing at Green Island.** Volunteers will harvest and prepare willow stakes for planting at Quartz Creek then fish until 4pm. [Sign Up.](#)
  - Saturday, 22 Nov., 8–10am. Green Island Photography Walk.** Join photographer GariRae for a guided photography walk through the riparian woodlands of Green Island. [Sign Up](#)
- **Native Plant Society of Oregon, Emerald Chapter** <https://emerald.npsoregon.org/>
  - 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.
  - Monday, 17 Nov., 7–9pm. Climate and Vegetation of Oregon Over the Past 50 Million Years.** Dr. Greg Retallack, Geology Professor Emeritus, will speak on the long fossil record of plants and soils revealing dramatic paleoclimatic changes. Amazon Community Center, 2700 Hilyard, Eugene.
  - Monday, 15 Dec., 7–9pm. December Holiday Social.** Share photos and stories of wildflower destinations from the past year. Bring 10-15 slides on a flash drive and a snack to share. Amazon Community Center, 2700 Hilyard, Eugene.
- **Mt. Pisgah Arboretum** <https://mountpisgaharboretum.com> or 541-747-3817.
  - Saturday, 22 Nov., 10am–4pm. Acorn Workshop.** Have you ever wanted to try eating acorns? Join Heron Brae and Joe Scott as they offer perspectives on the role of oaks in Indigenous ecological science and provide a hands-on session using manual methods of processing to making this widespread traditional food accessible to you. Pre-registration required.
- **Coast to Cascades Bird Alliance** [www.laneadubon.org](http://www.laneadubon.org) or 541-485-BIRD; maeveanddick@q.com or 541-343-8664
  - Saturday, 15 Nov., 8–11am. Third Saturday Bird Walk.** For all participants. For more info, contact tolalla@gmail.com.
  - Tuesday, 25 Nov., 7–9pm. Birds of the Southern Ocean.** Presenter: Magnus Persmark. Photos and stories about the Southern Ocean surrounding Antarctica and its unique plants and amazingly rich bird communities. Zoom and in person, Campbell Community Center, 155 High St., Eugene.
  - Friday, 12 Dec., 7–9pm. Woodpecker: A Year in the Life of North American Woodpeckers.** Join author and photographer Paul Bannick for the Oregon launch of his new book. Jointly sponsored with the ENHS. 221 Allen Hall, UO Campus.
  - Sundays, 14 and 28 Dec., all day. Christmas Bird Counts, Florence and Eugene.** To join on one or both count days, email Vjera Thompson, eugenechristmasbirdcount@gmail.com. To volunteer to be a home counter for the Eugene CBC, email Marcia Maffe, birds2count@gmail.com.
- **Museum of Natural and Cultural History, University of Oregon** <https://mnch.uoregon.edu/museum-home>
  - Ongoing exhibits:** Oregon—Where Past Is Present; Explore Oregon; Roots and Resilience: Chinese American Heritage in Oregon; Transgressors.
  - Thursday, 13 Nov., 6–7pm. Indigenous Currencies reading and book signing.** Join UO Assistant Professor and author Ashley Cordes for a reading from her new book.
  - Thursday, 20 Nov., 6–7pm. Transgressing the Museum.** Transgressors co-curator Anthony Hudson and artist Steph Littlebird discuss decolonizing museum exhibits and honoring Indigiqueer ancestors through art.
  - Thursday, 11 Dec., 4:30–7:30pm. The Art of Science and Culture.** Support local artists and authors and learn about how art, science, and culture intertwine. Snacks and cider 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 Learnscope.  
**Tuesdays and/or Fridays afternoons. Natural Neighbors.** After-school program outdoors in our Learnscope.  
**Saturday, 15 Nov., 9:30–11am. Community Science Investigators: Feederwatch Kickoff.** Learn about backyard birds and document feeder activity in our Learnscope. Designed for adults and mature youth. We will use iNaturalist and Merlin. Meet outside our yurt in Alton Baker Park. Members and volunteers FREE, nonmembers \$10. Pre-register online.  
**Tuesday, 9 Dec., 10–11:30am. Green Start Pay Day: Snow Storm.** This month we'll be learning about winter weather! Kids 5 and under only, with an adult. Members FREE, nonmembers \$10/family. Pre-register online.

**A big thanks to all of the volunteers at the ENHS booth at the  
2025 Mt. Pisgah Arboretum Mushroom Festival!**

Krystal Abrams, Bill Clingman, and Board members John Carter, Monica Farris, Kris Kirkeby, Tom Titus, and Kim Wollter enjoyed interacting with an enthusiastic crowd of visitors who kept us busy all day. The live salamanders were the biggest draw, as per usual!

**A Note to Our Members Regarding Dues**

The ENHS Board has decided to raise membership dues. Our costs are increasing, and we can no longer meet our financial obligations with our previous dues structure (we have not raised dues since 2011). Our greatest expense after speaker honoraria is printing and mailing of *Nature Trails*, so please consider going paperless. Electronic *NT* documents are sent via email and include color photos and live links and can be printed at home.

Annual dues for ENHS membership are payable in September. Keep your copies of *NT* coming and support our efforts to provide fascinating natural history presentations every month and occasional field trips. You can renew and pay electronically at <https://eugenenaturalhistorysociety.org/join/annual-membership-payment/>.

**ENHS MEMBERSHIP FORM**

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State & Zip \_\_\_\_\_  
 Phone \_\_\_\_\_

**Please choose how to 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	\$25.00
Family	35.00
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; 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/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 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 2025–2026

President: Tom Titus [tomtitus@tomtitus.com](mailto:tomtitus@tomtitus.com)

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Digital Media Consultant: Krystal Abrams

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

Board members: John Carter, Kaye Downey, Tim Downey, August Jackson, Chuck Kimmel, Reida Kimmel, Kris Kirkeby, Dean Walton

## 2025–2026 Speakers and Topics

19 Sept.	Joe Moll	<b>The Audacity of Perpetuity: Land and Water Conservation in Uncertain Times</b>
17 Oct.	Jamie Cornelius	<b>Amazing Adaptations: How Birds Survive Stormy Weather</b>
21 Nov.	Matt Betts	<b>Research Projects at the H.J. Andrews Experimental Forest</b>
12 Dec.	Paul Bannick	<b>A Year in the Life of North American Woodpeckers</b> (cosponsored with the Coast to Cascades Bird Alliance)
16 Jan.	Marie Tosa	<b>Spotted Skunks</b>
20 Feb.	Leif Karlstrom	<b>Giant Aquifer of the Cascades</b>
20 Mar.	Anne Thompson	<b>Marine Microbiology and Ecology</b>
17 Apr.	Heron Brae	<b>Oak Savannah Communities</b> (cosponsored with the Emerald Chapter of the Native Plant Society of Oregon)
15 May	Samantha Hopkins	<b>The Relationships among Paleontology, Climate Change, and Extinction</b>