

Nature Trails

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Photos by Ed Alverson

One Scene, Four Seasons

Southern Willamette Valley Natural Areas Through the Seasons

Ed Alverson

Natural Areas Coordinator, Lane County Parks

Cosponsored by the Native Plant Society of Oregon, Emerald Chapter

**Friday, 19 May 2017, 7:30pm,
Room 100 Willamette Hall, UO Campus**

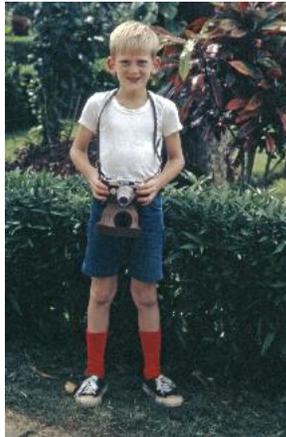
Meet May's Speaker

When I walked into the coffee shop to meet Ed Alverson he was reading Newhall's *From Adams to Steiglitz: Pioneers of Modern Photography*. Alverson is an excellent photographer himself, and apparently intent on becoming even better. He got his first single-lens reflex camera when he was 13, but he said he is pretty sure he took his first photograph when he was 4. That picture is of his family, including both his parents, so they could not have taken it. Also, there's a tilt to the picture—just the sort of mistake a 4-year-old would make. The aspiring photographer in the photo at right is our speaker at about age 8. Alverson said he thinks he was a better photographer before the digital revolution improved cameras so much. Back then, he said, you had to know more about what you were doing: how to control depth of field with shutter speed and f-stop, how to compose the shot because you would not know instantly whether you had captured what you wanted, as you do now. He mentioned that Ansel Adams imagined the finished image, thinking through to the developing process, when composing his photographs. We are all aware of the stunning, iconic scenes Adams produced. Cameras do almost all the work nowadays, so most anyone can get decent pictures.

Until he was 10 years old Alverson's family moved around a lot, but at that point they settled in Bellevue, across Lake Washington from Seattle. After high school he enrolled in Evergreen State College in Olympia, Washington, where he focused on biology and natural history, emerging with a B.A. in 1984. During summers beginning in 1980 he did field botany and rare plant surveys all over the state. He said he found central and eastern Washington more interesting than the western part.

Alverson spent three years as a graduate student at Oregon State University, finishing his botany M.S. in 1986. His thesis work was a taxonomic study of parsley ferns—the genus *Cryptogramma*. While at OSU he honed his continuing interest in ecology and endangered species. He had never stopped his summer activities, continuing to do field botany and rare plant surveys, but now in Oregon as well as Washington.

After spending a year in Portland as a consultant he took a position with The Nature Conservancy in Eugene in 1991. That was soon after the West Eugene Wetlands (WEW) got started, and TNC was



one of the original partners in the local open-space movement. Fifteen years ago the partnership expanded and formalized to include Eugene-Springfield and portions of the Southern Willamette Valley. It was renamed the Rivers to Ridges Partnership, and now comprises 16 partners. Many persons are involved, working for several different agencies. Alverson currently is the Natural Areas Coordinator for Lane County Parks and is this agency's representative in the partnership.

Alverson told me a story about the early days of the WEW partnership effort. In an effort to drum up political and financial support, dignitaries were being given tours. For one of the tours they decided upon a canoe trip on Amazon Creek. What could go wrong? The dignitary was none other than our Representative, Peter DeFazio. At the outset one member of the tour slipped and fell into the creek—not a body of water in which one would voluntarily go swimming. The water level was so low that often the boats grounded, and the low point—or high point—of the tour was watching Steve Gordon, one of the founders of the whole WEW effort, pulling DeFazio's canoe over a shallow spot with DeFazio sitting in it. That was the last canoe tour. At that point, over 20 years ago, a prognosticator might have written off the future of the project. But take a look at Amazon Creek out there in the WEW now.

Alverson worked for TNC until 2012 and then consulted independently for three years before taking his current position with Lane County Parks.

Alverson has come to appreciate *local*—what's at hand—rather than glamorizing the novel, the faraway places. He will show us and tell us about a project he has worked on for ten years, outside of his professional responsibilities. It is sort of like a massive phenology study, but not quite. First, here's what he did. He picked a particular site and selected anywhere from a dozen to three dozen scenes at that site. He took a photo of each scene, carefully noting the exact spot from which the shots were taken. The next week he came back and repeated the process—one photo of each scene. He did this every week for a year. In year two he chose a different site, and repeated the process—taking a photograph of each scene at the site every week, all year long. His first year was 2005, his last, 2014. Ten years. Why? Alverson said he wanted to see familiar landscapes from a different perspective, to expand the time scale, since different elements of the landscape operate on different time scales. What he has amassed is a

different kind of three-dimensional depiction: the photos themselves are two dimensional, and the third dimension is time. Watching a year's worth of change of a familiar landscape at the rate of two seconds a week can change the way we conceive of the passage of time.

To get an idea of the quality of Alverson's photography and his prose, look at his article, "Preserving Prairies and Savannas in a Sea of Forest: a Conservation Challenge in the Pacific Northwest,"

in the April 2005 issue of *Plant Talk*. Here's a link: http://cascadiaprairieoak.org/wp-content/uploads/2014/01/Plant-Talk-40_Alverson.pdf

Please come to room 100 Willamette Hall on the UO campus at 7:30pm on Friday, 19 May, to hear Ed Alverson's presentation, "Southern Willamette Valley Natural Areas Through the Seasons." This hour may well change the way you view your surroundings. Leave room for cookies. John Carter

Rock Snot Sleuths: A Mystery Solved?

by Reida Kimmel

We know that toxic blooms of the diatom *Pseudo-nitzschia* can be responsible for rendering shellfish perilously inedible. Another species of diatom has become a threat of a very different sort in freshwater. *Didymosphenia geminata* forms large slimy blobs, is harmful to fish, repulsive to fishermen, and apparently spreading all over the world. "Rock snot," to fishers, "Didymo," to biologists who study it, has a fascinating story, one which has been unfolding for thirty years.

Exactly what are these ugly blobs formed by Didymo? Under some sort of stress, many thousands of the diatoms group together and secrete an acellular, non-living polysaccharide material that forms a stalk. The stalks, whose filaments can stretch two or three feet long in moving water, attach to rocks or the bottoms of lakes and rivers. Brown, slippery, and possessing the tactile charm of a lump of wet wool or fiberglass insulation, the diatom mats have alarmed fisheries scientists. What, if anything, are they doing to fish? How can they be gotten rid of? Where did they come from? That last question is a huge puzzler, because *Didymosphenia geminata* is found as a single-celled organism all over the world, from Spitzbergen to New Zealand, Lake Baikal and North America. It is not a new species. Eleven thousand-year-old fossil cores from Montana contain it. Historically, this largest of freshwater diatoms is sometimes present and sometimes absent from any ancient study site. The species was first recorded in America in the 1860s, but the mats were never mentioned, not even in the prolific writings of mid-20th century fishing fanatic Roderick Haig-Brown, whose favorite rivers were the Heber and the Stamp on Vancouver Island, where rock snot was first observed.

Dr. Max Bothwell is a research scientist for Environment Canada, based in Nanaimo on Vancouver Island. He has been studying *D. geminata* since it first appeared in local rivers, in 1988. By 1993 the blooms were everywhere in the island's fresh waters, and phosphorus pollution was thought

to be the culprit. But that theory was short lived, because Vancouver Island's rivers are nutrient poor. Other theories also failed to explain this change in the rivers' basic character. It was not a problem due to flooding or increased UV levels that might inhibit other diatoms, thus allowing *D. geminata* to go into reproductive frenzies. Other blooms appeared in the Eastern United States, Quebec, and South Island, New Zealand. Was there a new, mat-forming variant of the species being spread by fishermen? The 1990s saw a 300% increase in recreational fishing on Vancouver Island, and the industry was booming elsewhere too. Guided fishing trips, shared gear and, very importantly, widely available felt-soled waders could be carrying the plague around the world. Bothwell et al.'s paper in 2009, "On the Boots of Fishermen," influenced many states and countries to ban the use of felt-soled waders. A good idea, as waders could also be carrying many other potentially invasive species.

But why were there *D. geminata* blooms on South Island New Zealand and not on North Island, which was an equally popular fishing destination? Why were there blooms on some rivers but not on adjacent creeks? The waders theory did not solve the mystery. Next Bothwell's group and a team of New Zealand biologists set up a series of flumes on the affected South Island's Waitaki River, where it receives water from rock snot-free Otiake Spring, and ran the experiment for more than a year. They studied the chemical composition of the two water sources and compared their effects on *D. geminata*. Waitaki River water, choked with the mats, was without phosphorus. Otiake Spring water had phosphorus, and where it entered the river there were no mats. Floods that sent water back up into Otiake Spring from the river, never caused Otiake's Didymo cells to form mats. What a surprise! Everyone 'knows' that phosphorus is a nutrient that causes huge problems with algal blooms. But here, it is the *lack* of phosphorus that brings on the mat-forming process. Further tests gave greater clarity. It only takes a small amount of phosphorus to keep Didymo from blooming, only about two parts of total dissolved

phosphorus per billion, though later studies say that one part per billion will suffice. What if a river has or gets more phosphorus than that? Colonies exposed to the spring water thrived briefly and then collapsed. Places like North Island New Zealand and our West Coast that are naturally high in minerals do not see their native diatoms—*Didymo* or other species—forming stalked mats.

But natural phenomena can rarely be explained simplistically. It was time to take a global approach to the problem, as Bothwell, D.A. James and S. Chipps did in a *Freshwater Science* 2015 article. The world has changed. Is phosphorus declining in the rivers of our warming world? Earlier snowmelt flushes phosphorus into creeks prematurely, and it washes away. Northern rivers no longer receive the huge mineral input that came in the past from millions of returning anadromous fish. Perhaps *Didymo* forms stalks to get its cells higher into the water column in search of molecules of phosphorus. We know that since early in the twentieth century our atmosphere has been increasingly loaded with nitrogen as well as carbon. The Haber-Bosch process, which fixes nitrogen to form urea fertilizer, dominates agriculture worldwide, and nitrogen fertilizer is applied to tree plantations as well as to farm crops. Adding nitrogen to soils encourages root growth, leading to more mycorrhizal filaments,

which take up phosphorus and make it unavailable to aquatic systems.

“What goes around comes around.” British Columbia began a urea fertilization program in the late 1970s, applying two to four million kilograms of urea per hectare to forest plantation lands, increasing timber production by 10 to 30%. And where were the very first massive urea fertilization programs on Vancouver Island? Why, right there on the Heber River, in 1988 and 1989, exactly where and when the very first *D. geminata* blooms appeared! No coincidence, when you think about it, but fisheries scientists do not often talk to forestry folks. So this key clue went undiscovered for twenty-seven years.

The tale of rock snot is a marvelous example of a serious and yet quirky research project. The twists and turns in unraveling the mystery of why *D. geminata* forms huge slimy clumps, the increasing sophistication of the study, and the growing awareness of the need to see the big picture are examples of natural history research at its best. Observe, make hypotheses, test them, discard them if they are proven inadequate, make new hypotheses and test those. Look outside the box where answers to your questions just might be staring you in the face. Now it's time to find out how fish populations interact with the mats. Are they food, shelter, or just impediments to vigor and fitness?

Coda to Change by Tom A. Titus

The Greek philosopher Heraclitus was a wise man who embraced the pervasiveness of change as a central tenet of his thinking. Change was in the air eight years ago when ENHS President David Wagner buttonholed me outside the University of Oregon post office. Dave didn't exactly ask me to be President—he told me it was my turn. So in September 2009 I wrote my first presidential column for *Nature Trails* entitled “Prelude to Change.” I pondered the small and large transformations that encompass our lives and remembered the Oxbow Ridge Fire of 1966. That August I was nine years old when my father took our family for an evening drive down Upper Smith River Road. The road was closed at Gunter, where we watched the fire on the ridges to the west, an orange glow of 42,000 acres of forest undergoing very rapid change.

Over fifty years later, the trees born in the wake of the Oxbow Ridge Fire have matured into closed canopy second growth. As the forest matures, trees will occasionally topple and create sunlit spaces for change on a much smaller scale than the original burn. I don't want to carry this metaphor too far—I have no intention of toppling. But at our upcoming 19 May business meeting I will step aside from the

ENHS presidency. I like the image of stepping aside, rather than down. This is because ENHS is really run by consensus of a very wise Board of Directors who strive to meet the needs of the organization, which ultimately is all of you. Like any healthy biological community, these needs encompass both the individual and the community. We strive to feed you with personally enriching talks and field trips, and together we will continue as an educational force in our community.

Rather than tip over, I plan to become an ecological shape shifter. I'd like to become a vine maple adapted to a less dramatic life in the understory. As Immediate Past President, I'll grow more slowly, add tighter growth rings, become wiry and twisted, and regale the Board with my gnarly ideas. There will be an occasional contribution of leaves to the fertile forest humus, and you'll still see my columns several times a year in *Nature Trails*.

Enjoy is an insipid word that fails to embrace the complexity of my eight years as ENHS President. Rather, I have *loved* being president, in the multifarious reality of a true love relationship. Loving is a commitment that goes beyond our emotions in the moment. More than once on a third Friday I've waited nervously for a speaker to arrive

for dinner, and once in a great while found myself wishing they hadn't arrived at all. I've worried over my blood pressure while simultaneously doing battle with a recalcitrant sound system and engaging in polite pre-meeting conversation with members. Writing for *Nature Trails* has often been squeezed into the interstices of a busy and chaotic life.

And yet as in any healthy love relationship, I have been fed. Those packed seats in 100 Willamette and your lovely comments about our speakers are deeply satisfying. Many of my monthly *Nature Trails* columns have become abstracts for larger essays in a future book. Thank goodness I can continue working with the ENHS board—we are so fortunate to have this dedicated group of people taking care of business behind the scenes. Although in that inaugural September 2009 column I told you that I was not a joiner, you have taught me that I can partner with other people and pour energy into something positive and larger than myself. You have fed me, and I have grown.

But just as forests change, the circumstances of our lives change, and we change to meet those circumstances. Some time ago I realized that personal change was imminent, and I tracked Dean Walton down in the catacombs of Knight Library. He knew why I had come, and he enthusiastically agreed to become your next President. So with your approval on 19 May, I will hand the presidential responsibilities over to Dean. You'll soon realize what a treasure he is. Dean loves all things related to natural history: plants, animals, their interrelationships, and books describing the natural world. Most importantly, he loves the ENHS. Dean

has been active on the Board for several years and has recommended many excellent speakers. He brings tremendous energy and intelligence to the job and is especially interested in diversifying our membership. In his inaugural year, Dean will introduce a stellar lineup of speakers for 2017–18, including Dana Whitelaw (sage grouse), Peter Hayes (sustainable forestry), Chris Goldfinger (big earthquakes), Matt Betts (songbird ecology), Leigh Torres (whale ecology), and Ron Larson (natural history of Abert Lake). Please continue your support for these outstanding talks.

We can't know whether trees have a soul or whether they experience anything like satisfaction for time in their lives well spent. If they don't feel this, I'm sorry for their loss. My years as President have been one of the most soul-satisfying experiences of my life. I'm pleased with where the ENHS is today: our membership is solid, our lectures are well attended, we remain fiscally sound with minimal membership dues, our collaborations are numerous, and we are a recognized force for environmental education in our community and bioregion. As always there is work to be done. In that 2009 column, I challenged our Society to think harder about why we do all of this good work. I maintain that our fundamental process should be an incremental brick-by-brick removal of those barriers separating us from the rest of the living and nonliving world. Only then can we become fully integrated partners with this good Earth. I trust that after these eight years we are further along that path. Thank you for walking with me.

Events of Interest in the Community

Lane County Audubon Society

Saturday, 13 May, 9am-1pm. 2017 International Migratory Bird Day. Family bird walks and kid-friendly activities at Nearby Nature's Learnscape in Alton Baker Park will provide outdoor learning experiences. Children must be accompanied by an adult. No dogs, please.

Saturday, 20 May, 8am-noon. Third Saturday Bird Walk. Wildlife biologist Dave Bontrager will lead a trip to the Kirk Park/Pond area, north of Fern Ridge dam. People may meet to carpool to the location at the usual place at South Eugene High School's east side parking lot or arrive at the Kirk Pond parking area on Clear Lake Road by 8:30am. When leaving your vehicle at SEHS, take your valuables with you. It's rain or shine so be prepared. A \$3 donation is appreciated to help support Lane County Audubon's activities. FMI: Jim Maloney at 541-968-9249 or jimgm@comcast.net.

Tuesday, 23 May, 7:30pm. California Condor Recovery. Susan Haig, a wildlife biologist with the U.S. Geological Survey and professor of wildlife ecology at OSU, will share some of what she has learned about the feasibility of reintroducing Condors to their former range in the Pacific Northwest. 1645 High St., Eugene.

Mt. Pisgah Arboretum

Saturday, 13 May, 10am-noon. Herbalism Walk. Join herbalist Sue Sierralupe on a short stroll along the Arboretum's river path discussing the medicinal properties of plants. View the Willamette Valley's native beauties in spring as they flower and begin to spread their leaves. This walk is senior friendly: no elevation gain and resting spots included. Rain or shine. Meet at the AVC. \$5, members free.

Sunday, 21 May, 10am-5pm. 2017 Wildflower and Music Festival. See 300-400 wildflower species. Listen to live music all day. Go on nature walks with expert guides. Take your kids to the Kids Booth and get their faces painted. Buy lunch, snacks and dinner at the food booths. Tour the booths of the various local organizations—including the wondrous ENHS Booth! Co-hosted by Lane Community College and the Native Plant Society of Oregon, Emerald Chapter, the Festival's proceeds support the MPA. Donations, food purchases, and shopping at booths support its work in habitat restoration and environmental education. Entry fee is a suggested \$8 donation, but members and children under 12 get in free. No dogs, please. Parking is free, and there's a shuttle between the north lot and the entrance.

Saturdays, 3, 10, 17 June, 8am-12pm. Bird Songs Workshop. In this 3-part workshop led by Julia Siporin and Becky Uhler, learn how to identify and better understand local birds by their songs and calls. We'll help participants recognize our common (and uncommon) avian friends' vocalizations—and also share many tools for continuing to learn on your own. Each four-hour session in this three-part series will mix classroom time—in which we talk about bird sounds, listen to sample recordings together, and explore other learning tools—with time outdoors listening to the birds we are learning about. Julia co-leads the Arboretum's monthly bird walks. Julia and Becky have been exploring the world of bird vocalizations for about seven years and have been birding for many more. \$40 Members, \$50 non-members. Pre-registration required. To register call: 541-747-3817 or go to <http://www.mountpisgaharboretum.com/learn/workshop-registration/>

Friends of Buford Park and Mt. Pisgah

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

Tuesdays and Thursdays, 9am-noon. 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)

Go to <http://wewwild.blogspot.com/> for information on upcoming events.

The University of Oregon's Museum of Natural and Cultural History **Exhibit Hours: Tuesday through Sunday, 11am-5pm**

North American Butterfly Association, Eugene-Springfield Chapter

Go to <http://www.naba.org/chapters/nabaes/> for information on upcoming events.

Native Plant Society of Oregon, Emerald Chapter

Saturday, 13 May, 8am-3pm. Bikes to Blooms. Join local experts in exploring native plants in bloom. Wildflower tours throughout the day at multiple locations along Dorena Lake. All walks are accessible by car or bike. Please carpool, parking is limited. Bring lunch, water, weather-appropriate clothing, weed-free shoes, and a helmet if cycling. Free and open to the public. Please leave dogs at home. Location: Bake Stewart Park and Row Point Trailhead along Dorena Lake. For more information, call 541-767-9717 or visit <http://coastfork.org/>

Saturday, 13 May, 9am-12:30pm. Field Trip: Coyote Prairie. Diane Steeck, wetland ecologist for the City of Eugene, takes us on a tour of Coyote Prairie, a 240-acre native wetland prairie west of Eugene that the city has been restoring. Come learn about vernal pools, rare species (such as Bradshaw's lomatium), and how this site is changing over time. Total walking is 2 miles off-trail with some wet areas. Dress for weather. Bring snacks and water. Location: meet for carpooling at the tall fir trees in front of Lowe's store on the NE corner of 11th Ave. and Bailey Hill Rd. For more information call 541-345-5531.

Sunday, 21 May, 10am-5pm. 2017 Wildflower and Music Festival. See above under Mt. Pisgah Arboretum for details.

Saturday, 3 June, 9am. Field Trip: Horse Rock Ridge. Alan Curtis leads a 3-mile hike to a steep, rocky meadow high in the Coburg Hills north of Springfield. Enjoy wonderful views of the surrounding countryside and great botanical diversity. Bring water and lunch. Location: meet at South Eugene High School, 19th and Patterson. For more information, email Alan at abcwoods1@gmail.com.

Nearby Nature

Summer Daycamps 2017. Outdoor adventure, discovery, nature, art, science, and play! 26 June-1 September, week-long camps, half & full day options. Go to <http://www.nearbynature.org/programs/daycamps> for much more information.

Tree Walks 2017: Guided Tours of Eugene-Springfield's Urban Forest, led by Whitey Lueck. Most of the tours take place the *first* Sunday of the month, and all of them are from 2-4pm. Please arrive a few minutes early, as we begin promptly at two o'clock. Walks are on level, paved surfaces unless otherwise noted and they average about a mile in length; walking speed is moderate. Tours occur rain or shine. Participants receive a map of the walking tour, should they wish to return to the area another time.

Lueck teaches three courses for the Department of Landscape Architecture at the University of Oregon: The Nature of Eugene every fall, Living Landscapes in winter, and Trees Across Oregon each spring. He also cares for a half-dozen landscape projects in Eugene—some of them nearly twenty years old—which showcase a more nature-friendly approach to landscape design, plant selection, and ongoing care of the sites. Lueck is the author of *Trees for the Pacific Northwest* and *Free As A Bird*, as well as several essay collections, including *Staying Put in Lane County* and *Words from the Woods: 2004-2008*.

Sunday, 4 June. Amazon Meadows and the Clay Neighborhoods. Meet on the south side of the Amazon Community Center (2700 Hilyard St.). Itinerary includes globe black locust and Camperdown weeping elm. Special topic: Grassland ecology.

Sunday, 2 July. Pioneer Cemetery and Environs. Meet on campus in the quadrangle at the northeast corner of East 15th Ave. and University St. Itinerary includes Caucasian wingnut, ginkgos galore, and Santa Lucia fir. Special topic: The role of vines in our urban forest.

Sunday, 6 August. Morse Ranch. Meet in the shade of the oaks east of the parking lot; the park is located just off of Crest Dr. *This walk will be mostly on dirt paths on uneven terrain.* Itinerary includes two of our fine native trees, the California black oak and the Oregon white oak. Special topic: History and ecology of oak woodlands.

Sunday, 3 September. College Hill. Meet by the Himalayan cedar at the northeast corner of West 22nd Ave. and Charnelton St. Itinerary includes chaste tree, pomegranate, and “recovering” pin oaks. Special topic: Landscaping for wildlife.

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>

MEMBERSHIP FORM

Name _____
Address _____
City _____ State & Zip _____ Phone _____
E-mail (if you want to receive announcements) _____
I (we) prefer electronic copies of *NT* rather than paper copies. ___ Yes ___ No
If yes, email address (if different from the one above): _____

ANNUAL DUES: Family \$25.00
Individual 15.00
Life Membership 300.00
Contribution _____

Annual dues for renewing members are payable in September. Memberships run from September to September. Generosity is encouraged and appreciated.

Make checks payable to:
Eugene Natural History Society
P.O. Box 5494, Eugene OR 97405

BUSINESS MEETING

The May meeting is our annual Business Meeting. Members will be asked to vote on whether to accept the slate of officers and at-large Board members.

PARKING

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

POTLUCK

The ENHS June Potluck will be on Sunday, 11 June, 2-5pm at Tim and Sandi Godsil's home. Their address: 955 Ascot Dr., Eugene.

VOLUNTEER OPPORTUNITY

Do you come to our meetings? We need one or more volunteers to help with sound and lights. Familiarity with PowerPoint and with Windows and Mac laptops a bonus. Please let a Board member know if you're willing to help.

ENHS Officers and Board Members 2016-2017

President: Tom Titus titus@uoregon.edu 541-510-2500

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Immediate Past President: David Wagner davidwagner@mac.com 541-344-3327

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Photos by Ed Alverson

Schedule of Speakers and Topics for 2016-2017

19 May Ed Alverson – Southern Willamette Valley Natural Areas Through the Seasons

Schedule of Speakers and Topics for 2017-2018

15 Sept. 2017	Dana Whitelaw	– Sage Grouse: Icon of the Sagebrush Sea
20 Oct.	Peter Hays	– Hyla Woods, Sustainable Forestry
17 Nov.	Chris Goldfinger	– The Really Big One: How Did It Come to This?
8 Dec.	Matthew Betts	– Hummingbird Highways: Why Landscape Connections Matter to Pollination in the Tropics
19 Jan. 2018	Nathan Reynolds	– Mountain Goats Return to <i>Lawelat'la!</i>
16 Feb.	Gayle Hansen	– Tsunami Debris Algae: Will Species That Survived the Trip Become Invasive?
16 March	Leigh Torres	– Insights into Whale Ecology
20 April	Fred Swanson	– Humanities, Arts, Science Collide at Andrews Forest, Mount St. Helens, and Beyond
18 May	Ron Larson	– The Natural History of Lake Abert, Oregon's Salt Lake