# Nature Trails

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Dues are due!



Photo by Keith Kohl

## Sage Grouse: Icon of the Sagebrush Sea

Dana Whitelaw
Executive Director
High Desert Museum, Bend, Oregon

Friday, 15 September 2017, 7:30pm,

### Room 100 Willamette Hall, U0 Campus

Our September meeting will be a bit of a homecoming for our speaker, who grew up right here in Eugene. Dana Whitelaw's parents are long-standing members of our community. Her passion for environmental affairs could have begun in the cradle—her father, Ed Whitelaw, has been a clear voice for environmental justice for longer than Dana has been alive. The elder Whitelaw is an emeritus professor in the University of Oregon's Department of Economics and founder of ECO Northwest, from which platform he has advocated for the environment and natural resources at local, state and national levels since the mid 1970's.

Dana Whitelaw's love of the natural world stems from her childhood, under the influence of both her parents. Her interest in anthropology was also piqued in her formative years. She credits her folks for loosening her reins fairly early. The summer after she finished high school in Eugene they let her head off to Thailand as a volunteer in refugee camps largely populated by Hmong. While volunteering she worked with an anthropologist and fell in love with the discipline.

The holistic, long-lens view that anthropology requires so appealed to Whitelaw that as an undergraduate at the University of Montana, in Missoula, anthropology became her major. She also began studying wildlife while in Montana—her first focus being water ouzels. One of her undergraduate years was spent in Indonesia, where she had her first taste of non-human primate anthropology. The evolutionary biological side was becoming her favorite part of the discipline. That year was followed by another stay abroad, this time in Kenya and Ethiopia, where she studied hamadryas baboon communities. These exposures were enough to convince her that she didn't want to study human anthropology—too complicated. Whitelaw didn't make a complete break from a study of humans, however, because during that year she also came to realize that human issues have to be defined and dealt with if we are to succeed in conserving threatened non-human primates. This line of reasoning has been a primary influence in her career. In fact, in her talk to us about the Greater Sage Grouse she will talk not only about the bird itself but also about the human issues that have been critical to the ongoing effort to save it and its habitat.

With her B.S. in anthropology from the University of Montana in hand, Whitelaw travelled south for graduate study, again in anthropology, at the University of Colorado. She got both M.S. and Ph.D. degrees there, the latter in biological anthropology. Her dissertation research involved a two-year sojourn in Madagascar, studying ringtailed lemurs. Whitelaw got financial support for her research by writing successful grant proposals to NSF, the National Geographic Society, the Margot Marsh Biodiversity Foundation, and Primate Conservation International.

Whitelaw published her Ph.D. research in reputable journals—the International Journal of Primatology and the American Association of Physical Anthropology. In a self-deprecating aside she said they were typical thesis

publications—read by maybe seven persons outside of her immediate family and her thesis committee. By the time she was finished with her degrees she knew she didn't want to pursue a career in academia. She wanted a more applied focus. She was able to write convincingly—witness her successful grant proposals—and she found she was good at translating esoteric science into everyday language. While there in Colorado, besides the traditional teaching experience she had gained as a graduate assistant she had been part of the Science Squad, a group that brought contemporary scientific results into K-12 classrooms in Boulder and Denver in ways that made the work exciting and understandable.

Museum work seemed the ideal way to put into practice her talent for moving academic research findings out to broader audiences. Whitelaw took a position at the Natural History Museum at the University of Colorado, where she stayed for two years. From there she came directly to the High Desert Museum, in central Oregon a few miles south of Bend, where she served first as a grant writer and program developer, then as Vice-President of Programs, and for the past three years as Executive Director.

I realize the following is not directly about our speaker, but I think a few words about the museum she heads are in order. If there are any among our membership who have not been to the High Desert Museum (HDM), please go. It's a fine institution at both physical and philosophical levels. It also exemplifies the profound impact a single person can have on a region larger than most entire states in the eastern U.S. Donald Kerr's longstanding love affair with deserts led him to establish the Western Natural History Institute in 1974. The HDM, which was born in 1982, grew out of the Institute. The HDM is now the most popular destination in central Oregon, drawing over 170,000 visitors in 2016. The buildings are well designed, the grounds expansive (135 acres), and the exhibits are both educational and pleasing to the eye. They feature local historical culture as well as wildlife and native plants, in keeping with the museum's mission. A leisurely stroll outside through the well-tended grounds and inside through the eye-popping exhibits, followed by a nice meal in the cafeteria would be a fine way to spend half a day or

Whitelaw has a lot on her plate; HDM has 45 permanent employees and 200 volunteers. Keeping a crew that large happy and productive takes a lot of time and energy. And then there is money. I didn't ask what the average annual budget comes to, but it has to be large, meaning fund raising must be a constant priority. The average annual number of visitors is now well in excess of 150,000, which alone must generate close to \$2 million, but that must be only a fraction of the total annual operating expense. So she must also beat the financial bushes.

As all consuming as these administrative and financial responsibilities must be, Whitelaw still finds time for scientific interests. Her early realization that human issues cannot be ignored in dealing with environmental concerns—that is that human culture is now inextricably

entwined with the health of every ecosystem on the planet—still directs her intellectual pursuits. She will review for us the basic natural history of the Greater Sage-Grouse (*Centrocercus urophasianus*), and talk about the policies that have been developed with the aim of conserving this magnificent bird. Magnificent but threatened: in Canada it has been almost completely wiped out, and it has also been extirpated from five of the 16 American states in which it was originally found. Besides the fascinating natural history of this bird, Whitelaw's talk

will explore what it means to appreciate a species, the Endangered Species Act and the passionate stakeholders in the West that have been wrestling with how to preserve a species, western livelihoods, and culture, and how this process has resulted in one of the largest conservation efforts in U.S. history. Please join us on Friday, 15 September at 7:30 pm in room 100 Willamette Hall to hear Dr. Dana Whitelaw's presentation, "Sage Grouse: Icon of the Sagebrush Sea." John Carter

#### POLLINATORS' PASSIONS: The Glamorous, The Humdrum and Loveable Thugs by Reida Kimmel

Every year we see fewer bees and butterflies in our garden. I am painfully aware of honey bee decline and the even more acute decline of our native bees, butterflies, and probably the many flies and wasps that mimic bees and do so much of the actual task of pollination. I want to learn as much as I can about these pollinators so I can try to reverse the decline, at least on our little patch of land. I weed and harvest slowly during this summer's many unpleasantly hot days, resting often, watching insects interacting with plants. What have I learned from the flying insects whose space I share? I have learned a bit about what to plant to attract them to my garden. I have learned what seems to me to be their schedule of foraging. Mostly I have learned that I am still as ignorant about their lives, as they are indifferent to mine.

I want to provide them with a rich array of plants over as long a season as possible. For many years I have known that if the heather is blooming, as it does from late December into spring, and if the temperature rises above 50 degrees Fahrenheit, the honey bees will come to forage. They utilize heather preferentially until the blossoms wither, though snow crocus and snowdrops are also acceptable. But in recent years there have been few honey bees visiting. As spring advances and our Oregon grape (Mahonia repens) blooms, we see the first bumble bees (Bombus vosnesensii), huge yellow-faced queens stocking up on resources: nectar to make honey to feed themselves and pollen for 'bee bread' to feed the young they are producing. The larvae will grow into workers smaller than the queen, forging on Ceanothus and spring flowers, feeding the young the queen produces all summer. And so the colony grows. Not long after the yellow-faced bumble bees appear, there are other bumble bees foraging, yellow bumble bees, Bombus fervidus, and a lovely pale golden bee, possibly B. sylvicola.

When our trees flower the first pollinators I see are tiny flies, clouds of them on the pear and cherry trees and on the mountain ash. Then mason bees (*Osmia lignaria*) appear in large numbers. They live and breed in the poles and beams of the sheep and chicken houses. The buildings are nearly a hundred years old, sound, but riddled with cracks and holes perfect for the bees. The compost box is next to the sheep house, and if you drop a lump of fresh damp compost on the ground, it will be covered in minutes by these glittering metal-green bees. Do they seek the

moisture, the minerals, or some secret biodynamic compound?

Warm weather and the profusion of wild and cultivated flowers everywhere brings out countless (to me at least) species of small flies including charming hover flies, often colored to mimic bees or wasps, and 'gentle wasps,' probably *Polistes dominulus*, that nest under the horse barn's eves. The *Polistes* are predatory but they do a lot of hunting on and over flowers, so I do not doubt that they might inadvertently be pollinating as well. Summer's beauties also include our butterflies: swallowtails, painted ladies, tiny skippers and of course the omnipresent nonnative cabbage whites. Then there are the major predators, seldom seen amongst the flowers, thank goodness:

Western yellow jackets (*Vespula pensylvanica*) and baldfaced hornets (*Dolichovespula maculata*). These species do much good, but their stings are so painful!

One can almost tell time by the arrival of different families of insects. By eight or nine in the morning the bumble bees are at work. By noon they are joined by honey bees. Butterflies are more likely to visit in the afternoon, while skippers are very abundant late in the day. This "schedule" is the same whether the day is hot or temperate, but sunny days bring the pollinators out earlier.

With this cast of characters, what do I see during my midday rest? The 'weed garden', a neglected strip of earth along the woodshed wall, has lemon balm, spearmint, and Crocosmia montbretia, a common plant whose flame and orange flowers I love. Hummingbirds love them too, and are keeping me company. The bumblers are excited about the lemon balm that has just started to flower, while honey bees, golden ones from the hives over the hill, are preferring the spearmint. And what is that! A big queensized yellow-faced bumble bee is foraging in the Japanese wisteria flowers, and here she comes to check out the mint and Crocosmia. Researchers have recently discovered that bumble bees scent mark the flowers they visit and can tell if their own family members have visited recently, and if the nectar is exhausted for the present. The yellow-faced queen is probably gathering the Crocosmia's abundant pollen. Young queens and drones are produced in late summer and mate. Of all this summer's bumble bees, only the young queens will survive the winter, hibernating in ground nests and emerging in the spring to produce next year's colonies.

Our shallow well dictates that I must be stingy with water. Native plants are best for native bees, but there are not many that bloom in late summer and they are not showy, except for fireweed, native asters and goldenrod. The Xerces Society's new book, 100 Plants to Feed the

Bees, emphasizes natives but includes many late-blooming introduced species. Herbs, thymes, mints, oregano, basils, cilantro, dill, fennel, and parsley are all great nectar producers, though many will prove nuisances. Bees and hummingbirds adore Clarkia amoena 'farewell to spring' and C. elegans. Sadly, both species go to seed in mid-August. Utterly lovely, especially C. elegans, they thrive on drought and reseed prolifically. My late summer flower garden is a little skimpy in species varieties. Drought-tolerant catmint (Nepeta fassenii) and native asters are glorious planted with tall wild goldenrod (Soldago canadensis). Rudbeckia and Echinacea look good with the dark purple asters that grow everywhere if you let them.

# **A Rare Find on our Spring Field Trip** From Kris Kirkeby



It looked like petrified caramel and peanuts. As I got back into the car from a bird-spotting stop south of the Malheur Field Station during our June ENHS field trip I tucked the rock away. Before we were getting ready to leave I couldn't find it but knew I had slipped it into one of my bags, thinking, "that one is so unusual I'll be really angry with myself if it's gone." Most of the participants on our trips are seasoned nature observers. I seem to be forever polishing my skills. Did this come from being a natural science illustrator—trained to look closely at things—or did I become one because I was always playing 'I spy'? My husband calls me the detail queen. This time my curiosity paid off.

In any case, when I got back home I found the 'rock' and decided to take a photo and send it off to Greg Retallack to see if he could tell me what it was. Much to my surprise he got right back to me expressing his surprise. He said it might be a stromatolite and if it was it would be the first found in Oregon. If so would I donate it to the Museum of Natural and Cultural History fossil collections? That wasn't really a question (yes, of course) but the fun of finding out what its secret was interested me the most. After slicing it a bit he confirmed that it was indeed a stromatolite!

#### From Greg Retallack

This curious rock with the concentrically banded lumps is an example of a stromatolite, constructed by the surface Sedum 'Autumn Joy' spreads and spreads, and all the insects love it. Heavenly scented rugosa roses, single or semi double, bloom all summer and are great pollen sources. Delphiniums, if cut back and fertilized after blooming, will produce a welcome second set of fall flowers. So will borage. Staggered plantings of common sunflowers, not the sterile hybrids, offer pollen and then birdseed. Tolerate, if you dare, the lawn weeds dandelion, hawkweed and selfheal. They really are very pretty as well as pollinator friendly. If you are an optimist, plant milkweed and Joe-Pye weed (*Eutrochium purpureum*). If monarchs should come you will be ready with the right nectars for the migrants and food for caterpillars.

trapping and binding of cyanobacterial mats (a.k.a. pond scum) in shallow ponds. Stromatolites are rare in most of the fossil record, but well known from the Precambrian, before 542 million years ago, back when there were no snails or plants to graze or overgrow them. These are the only known stromatolites from the entire fossil record of Oregon.

Stromatolites are among the oldest evidence for life on this planet with large assemblages of them known from rocks in Australia and South Africa some 3.5 billion years old, and more controversial examples from Greenland 3.7 billion years old. After the Cambrian explosion of seaweeds and grazing molluscs, stromatolites were pushed to the edges of productive ecosystems and are found only at times of life crisis, such as the Permian Triassic boundary some 252 million years ago. There are still living stromatolites in Shark Bay and Lake Clifton in Western Australia, and the key to their persistence is low nutrients or high salinity that excludes other life forms.

The stromatolites from south of Malheur Field Station are in the Drewsey Formation of late Miocene age, about 8 million years ago. They are similar in many respects to the stromatolites called *Chlorellopsis coloniata* from the Green River Formation of Wyoming some 48 million years old. These microbial mat-formers are the last of a long lineage of aquatic microbes that persist to this day in extremophile conditions of alkaline lakes. Most stromatolites are made of calcite, but the Malheur specimen is chert, and has evidently been replaced since it formed. Chert is a feature of extremely alkaline soils of extreme deserts. There may be an interesting geochemical story here on how original calcite became a chert, but that will take more probing.

Such rare and interesting specimens belong in museums, where colleagues can discover and study them in future. Since the online portal (paleo.uoregon.edu) for the Museum of Natural and Cultural History fossil collections has been up, we have had a stream of visitors pursuing their own interests. Museums are the place where rare fossils reside, and where scientists can concoct studies that are based on material they could never hope to collect for themselves.

**Ghost Horses of the Desert** by Dean Walton

It takes a while to get to how the title relates to the story, but as any natural-history storyteller does, I will

eventually get there. My story begins in the semimildewed smelling basement of my childhood home. It was that classic smell of old books stored in darkness with too much humidity for too many years. This is where magazines like National Geographic went to live out eternity. The year was 1969, and no middleclass American would ever admit to tossing these status symbols of global awareness, whether read or unread, into the trash. They were valued, revered, and never ever looked at again as they became the breeding ground for mysterious fungal colonies in dark places. Except in this case, a spastic kid, born many years prior to any vague definition of ADHD and with much too much curiosity, came across them and pulled decades of volumes off the shelf and onto the floor into a single volcanic looking heap. One had a story about scorpions and how they glow ghostly in the night—well, in UV light that is. It was as cool a topic as could be for a 9year old boy. Another volume had the most awesome set of photographs of carnivorous plants, ones that lived in the tropics, maybe even in Sir Arthur Conan Dovle's *The Lost World*. The images were the most exciting thing I could remember. I came back to look at these photos many times, finally even reading the articles. Later I realized that the two coolest stories I could relate to in my short, almost decade-long life were written by the same person, some guy named Paul Zahl. All I wanted to do back then was to go look for cool insects—really, I guess, any arthropods—and then cool insect-eating plants. This is what Paul Zahl did and he wrote about exploring the Lost World—not an Arthur Conan Doyle fictional account, but a real account of going where no person of European ancestry had gone before.

Within the year, and with the help of an advertisement for flesh-eating plants in the magazine Boy's Life, I was unsuccessfully growing my first Venus flytraps. This was my introduction into ecology and horticulture. I bought them and killed them and then bought more, and bought more, and eventually learned to keep them alive. I expanded my collection and moved into sundews (Drosera intermedia, D. capensis, D. rotundifolia and D. binata), and butterworts (Pinguicula) and, of course, the Cobra Lily (Darlingtonia californica). Of all the plants I knew back then Darlingtonia was one of the three coolest plants in the world, with the second being the Venus flytrap and the third, any of the members of tropical pitcher plants of the genus *Nepenthes*. Paul Zahl's images of Nepenthes from that fateful eruptive mountain of magazines in my basement are forever stored in the gray matter of my

From the fourth grade on, I only wanted to do one thing career-wise in my life and that was to be a field biologist and explorer like Paul Zahl. Only much later did I realize how true and untrue this goal was. Life is complicated and choices are not always based just on what you want to do but what you need to do or feel you need to do. My own career path has wandered and unexpectedly turned. I have been true to my heart and I

did become a field biologist—I spent almost 15 years as a field ecologist working primarily for The Nature Conservancy and the Virginia Natural Heritage Program. I have become other things too—a photojournalist, a librarian, a technology specialist and a pharmacologist—but I have never stopped wanting to be a field biologist. Paul Zahl, as I came to learn, also had the same issues and was among other things a physiologist.

In my case, my first professional career was as a pharmacologist. Not a pharmacist, but really a pharmacologist. As a recent graduate from school I wrote a National Research Council proposal and received a grant to study scorpion venom. But after seeing the lab where I would be working I knew I couldn't go through with being trapped there. I struggled to figure out how to leave the world of labs and get back outside. This was where my passion really burned. Now, this leads me back to the Ghost Horses in the Desert.

During my fourth year of graduate school while working on my Ph.D. some of my colleagues and I attended a Federation of Experimental Biologists' meeting in Las Vegas, Nevada, and on one of the days during the meeting we rented a car to go exploring. We were still on edge because of two scary events that happened early in the trip. The first was actually our landing. Just after our plane touched down we were immediately thrown back into our seats as the plane sped up again and roared back into the air. We wondered what had happened or what had just been avoided. It turned out the crosswinds were so strong that the air traffic controllers were worried the plane could flip over if it slowed down any more. We had to circle around several times before the wind calmed and the plane could land, but finally we were safe in Las Vegas. The second scare happened the next day, as we were eating lunch. As we sat in the restaurant the whole building suddenly shook and there, blooming like a desert cactus after a rain, we saw reflected on the mirrored glass of the building across the street a huge fireball. All I could think of was the airport and airplanes and our experience. But the guy next to us, who worked in the building, said no, that's the wrong direction. He led us up to his office where we all could see into the desert. The glowing cloud wasn't near the airport but in the direction of Henderson, home of the PEPCON rocket fuel plant. The plant had just blown up, sending shock waves 15 miles away to our restaurant and blowing out windows all across the city.

And so it was with no little edginess that we began our exploratory trip. We drove down the road where Las Vegas abruptly ended on a street corner. It was casinos all the way to the right, and to the left, desert. The city just ended and the desert began and we drove down the road until the pavement also ended, and it became gravel and turned to cobbles and the cobbles became bigger and suddenly we found ourselves really in an arroyo instead of a road. We stopped then only because we figured we couldn't get the car back out if

we went further. In the midst of this now encompassing desert, we set out on foot looking for rattlesnakes. This was our goal. We aimed for some foothills we could see a mile away. They beckoned us to climb them. As we walked into the desert we turned over every large rock and large stick we saw, and kept heading toward those foothills. An hour or so later we were still skunked. Not a single slither was seen nor buzzing heard. We were successful in finding many other things, like westernbanded geckos and roadrunners and even scorpions (Nevada is home to the only really dangerous scorpion in all of North America, Centroides sculpturatus. Its venom attacks the nervous system as a sodium channel blocker and can cause human fatalities.). Two hours of hiking later we were still gazing at the foothills that seemed so close but never got closer.

Then, in the middle of this open desert where the shrubs were only as tall as our chest and you could see forever to the north, west, south, and east, we heard snorts, the snorts of horses, loud, and right next to us, directly next to us. Yet there was nothing there. It was startling and it was disturbing. We turned and looked

around, each in puzzlement and discomfort, our recent scares adding to our unease. At our feet was gravel, pink, black and gray, and before us just space and creosote bush (Larrea tridentata). Our horses were nowhere to be seen other than in our minds. Then something moved in the gravel and the shape and outlines of our ghosts became apparent. Our horses were two Gila monsters (Heloderma suspectum) mating in the desert, their cryptic coloration



Pat Abrahams watching a Gila monster. Photo by Dean Walton.

so perfect that standing a foot away from them we couldn't see them. It was only their amorous noise that allowed for the discovery. Gilas are found in just small parts of Nevada, California, New Mexico and about half of Arizona and some of Northern Mexico. They primarily feed on ground-nesting bird eggs but will also prey on small mammals. The IUCN Red List has their status categorized as near-threatened. We never found our rattlesnakes on that trip but we did find something we never ever expected to see.

Human expansion in this world continues, unfortunately, and Las Vegas has grown faster than almost all other cities. On a return to the city, to explore the parks of Utah, I found that the airport was no longer separated by desert from the casinos; it had been consumed by this ravenous beast of a community. The airport had not moved yet it was suddenly downtown as the city grew up around it. And I could see, in the direction of those sirenic foothills, houses, houses now up to the foothills, and I knew that the habitat of the Gilas was gone, that they were gone, not the species, yet, but I wouldn't be surprised if the species goes too.

All that was left of the home of those wonderful lizards were the ghosts of snorting horses.

I know that as a member of the Eugene Natural History Society I am surrounded by fellow lovers of the natural world. As our new president, my goal is to continue our legacy of great talks. The board has been reviewing the different presentations we have heard over the last 15 years, looking for interesting issues in natural history that we have overlooked. We are also considering strategies to ensure our continuity in future years. Another goal is to get more participation in our excellent field trips. These outings never fail to provide rich experiences. For example, our recent trip to Malheur Field Station in eastern Oregon was simply outstanding. We saw more than 65 species of birds including golden eagles with young, whiptail lizards, horned lizards, leopard lizards, gopher snakes, and even that elusive rattlesnake.

I look forward to serving this wonderful group.

#### **Events of Interest in**

#### the Community

#### **Lane County Audubon Society**

**Saturday, 16 September, 8am-noon. Third Saturday Bird Walk.** FMI: Jim Maloney at 541.968.9249 or jimgmal@comcast.net.

Tuesday, 26 September, 7:30pm. Birding Without Borders: An Epic World Year with Noah Strycker. 1645 High St., Eugene.

#### Mt. Pisgah Arboretum

Go to <a href="http://www.mountpisgaharboretum.com/festivals-events/">http://www.mountpisgaharboretum.com/festivals-events/</a> for information about six upcoming MPA activities in September.

#### 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)**

**Tuesday, 12 September, 9-11am. Wetland Wander at Golden Gardens Park.** Directions: From Hwy 99, west on Barger, Right on Golden Gardens Street. Meet at the intersection of Golden Gardens Street and Jessen Drive. Go to http://wewwild.blogspot.com/ for information on other upcoming WREN activities.

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

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

Friday, 29 September, 7pm. Travels in the Countryside of Russia. Go to <a href="http://www.npsoregon.org/calendar.html">http://www.npsoregon.org/calendar.html</a> - EM for information. Note that the meeting will be in the Obsidian Lodge.

#### **Nearby Nature**

Sunday, 10 September, 1-4pm. NN's 25<sup>th</sup> Birthday Celebration! Go to <a href="http://www.nearbynature.org/">http://www.nearbynature.org/</a> for information on this and 3 other September events.

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: <a href="http://biology.uoregon.edu/enhs">http://biology.uoregon.edu/enhs</a>

<b>MEMBERSHIP</b>	FORM			
Name				
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I (we) prefer electronic copies of NT rather than paper co			Yes	No
If yes, email addre	ess (if different from t	the one above):		
ANNUAL DUES:	Family	\$25.00		
	Individual	15.00		
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	Contribution			are payable in September.
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Make checks payable to:				to September. Generosity is
Eugene Natural History Society				encouraged and appreciated.
P.O. Box 5494, Eu	igene OR 97405			cheouragea and appreciated.

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



# Photo by Steve Parsons

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

President: Dean Walton <a href="mailto:dpwalton@uoregon.edu">mailto:dpwalton@uoregon.edu</a> 541-346-2871 Vice President: Rebecca Hazen <a href="mailto:rebeccahazen2011@comcast.net">mailto:rebeccahazen2011@comcast.net</a> Immediate Past President: Tom Titus <a href="mailto:tomatitus57@gmail.com">mailto:tomatitus57@gmail.com</a>

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

#### Schedule of Speakers and Topics for 2017-2018

15 Sept.	Dana Whitelaw	Sage Grouse: Icon of the Sagebrush Sea
20 Oct.	Peter Hayes	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.	Nathan Reynolds	Mountain Goats Return to Lawetlat'la (Mt. St. Helens)!
16 Feb.	Gayle Hansen	Seaweeds on Japanese tsunami debris: have they invaded our shores?
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