



# Nature Trails

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Dr. Wetherwax, in the field in Ecuador

**"Honeybees - Just one of 20,000"**

**by Professor Peter Wetherwax, Research Assistant  
Professor of Biology**

**Friday, 21 November, 7:30PM Room 100, Willamette  
Hall, UO Campus**

Mortar Board Professor of the Term: a University-wide, student-voted award for excellence in teaching. Williams Fellow: a University-wide award for excellence in teaching. Outstanding Biology Teaching Award, Department of Biology, 1997 and again in 2003. This is not his complete awards list, not even half of it, but you get the idea: Professor Peter Wetherwax can flat-out teach. We are fortunate that he made time in his full schedule to be our November speaker.

In his talk, Dr. Wetherwax will focus on the natural history of bees. Among other things, we will learn about the great diversity of bee species. (I readily confess my ignorance here: I knew about honeybees and bumblebees and a couple of other wild bee species, but I had no idea there are upwards of 20,000.)

Peter can't remember a time when he wasn't interested in nature and science. Growing up in Burbank, California, may not sound like the ideal background for fostering a love of the natural world, but, perhaps surprising to those of us who only know of Burbank by hearsay, his boyhood home was close to a chaparral stand. He and his brothers spent lots of time outside, hiking around, catching lizards, being kids outdoors. His parents encouraged his interest in science; they got him a microscope and a chemistry set, the latter of which he used to perform magic shows for his friends.

He also became a musician at an early age. He was taught by his father, who made his living playing in bands and teaching several instruments. Peter was seven when he played his first gig. The band he was in was good enough to be in some demand in local hotspots. He must have been good – he made enough playing in and leading bands to pay for his undergraduate education at UCLA.

It was at UCLA that Peter became interested in pollination biology. Biology majors got to spend an entire quarter in the field while he was there. Peter's class went to Baja California, Mexico, and the instructor, an ecologist, told him to go out and find something to work on. He chose hummingbird pollination, and it was that project that convinced

him to be an ecologist and started his interest in pollination.

After getting his BA in biology from UCLA, Peter went to Humboldt State University, in Arcata, California, for his Master's. Here he continued in pollination research. As well as his MA, Peter also got his Secondary Teaching Credential in Life Science from Humboldt State, and he used it – he taught high-school biology for two years before beginning his PhD program at Oregon State University.

Dr. Wetherwax began teaching biology at the University of Oregon while still a graduate student at Oregon State (cue the beaver in cap and gown, lecturing the duck). In 1993, immediately upon receiving his PhD from OSU's Department of Entomology he became a full-time Instructor at the University of Oregon. He has been here since.



Peter with an undergraduate class, in Ecuador

Asked what it is about teaching that so captivates him, Peter paused briefly, appearing to collect his thoughts. He replied that he loves science, especially biology, and is eager to share this love, to excite students about some aspect of the discipline. At the University level he enjoys seeing students carry that excitement to the next level, going on to careers in science.

But in a way this is preaching to the choir. Peter also teaches a class to non-science majors. To my mind,

his efforts to make biology real to non-believers shows his true devotion to the discipline, because non-science majors usually are taking a biology class just to satisfy a requirement and have no interest in, even a bias against, biology.

It is in this sphere that the pedagogical scholarship of Peter and those he has collaborated with has really delivered the goods. They have worked for years at how to do this, and their work has been funded by agencies such as NSF and the Howard Hughes Institute. Termed 'Workshop Biology', the method starts with an issue and lets

that issue drive development of biological concepts. An issue related to pollination biology could be: How much do honey bees compete with native bees in the US? Or, what is responsible for the recent loss of honey bee colonies? Coupled with active-learning techniques, and field work when at all possible, this approach has been proven successful at multiple levels: middle school, high school, college, and University.

Peter's expertise in teaching methods has earned him some degree of fame: his list of seminars and invited talks shows that he is often called on to tell other teachers about this effective way to deliver scientific curricula.

Clearly, we can expect an excellent talk, not only because Professor Peter Wetherwax is a renowned educator, but also because of his topic. Bees are fascinating in their own right, not to mention their central importance to the human food supply, indeed to much of life on the planet. Professor Wetherwax speaks to the Eugene Natural History Society on Friday, 21 November, at 7:30pm in Room 100 Willamette Hall on the U of O campus. The title of his talk is "Honeybees – just one of 20,000." Please come, and bring friends and family.

John Carter

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## STUMPS

When we moved to Fox Hollow, Chuck always told people we were living on a 'stump farm'. His roots were in the immaculate truck and fruit farms of southern New Jersey, where to be a stump farmer was to be a shiftless fellow trying to work worthless land. Our stumps were numerous and enormous, the remnants of an old forest not completely logged until 1948. We could never have cleared them even if we had been very ambitious. In the past nearly forty years most of the stumps have disappeared, battered by frustrated rams, or rotted to mossy briary little mounds. The stumps have attracted the growth of native plants not found elsewhere in our pastures, trailing blackberry, black raspberries, and of course, poison oak. Our lambs always love to play king of the mountain, jumping on and off the increasingly frail platforms. One stump has become a mini nurse log, supporting a small Douglas fir seedling.

A mile south of our house, just over the ridge separating our Long Tom River drainage from Creswell and the Willamette River drainage, are the 'Bucking Stumps': uprooted victims of the 1962 October windstorm. That BLM old-growth forest was salvage-logged after the storm, leaving only the huge root masses of the former giants. The sight of these strange witchy shapes in the rough meadow on our trail home always inspired our horses to explode into caprioles and sunfishes and other horrid behaviors. All the young horses learned to buck here. Now the stumps, mossier but in no way diminished, are somewhat disguised by the new

forest that surrounds them, but the domain of the bucking stumps is still a mysterious and spooky place. We are older and smarter. We do not gallop there any more.

Traveling just a bit further south and into commercial timberland, we delight in the tall slim skeletal remains of smaller trees dead from crowding or storm damage. Often they are just a shell of bark, very green with moss and lichens. The low sunlight flickers through the holes where once branches grew. Other stumps are more substantial, though riddled with woodpecker holes. We like the rectangular holes made by the pileated woodpeckers best. They are so very symmetrical and large. Right beside the logging road there are two very big old stumps, sad stumps of ancient trees, cut before chainsaws came into use. You can see the notches for the platforms where the sawyers stood. Like the stumps in our fields, these trees were sawed very far off the ground compared to today's logging.

I like to envision what it was like when the old forests were still there. How much more water there would have been, small streams gently draining the hills, the creeks flowing clean and clear year around. Often the understory of vine maple and hazel would have made walking impossible, but in other places there would have been open glades with native bunch grasses and wild flowers. It's not hard to imagine these things, as we actually do have a few hundred acres of remaining BLM old growth within walking distance of our house. How these sites escaped logging is a total mystery. They stand as refugia for plants and animals stressed or eliminated elsewhere in surrounding acreages that

have been logged up to three times in the past century. But will these lovely and important places be here for future generations? The BLM's recently published Western Oregon Plan Revision, WOPR, proposes to cut twenty-seven percent of the old growth remaining on its western Oregon lands, ramping up logging to three hundred seventy-five percent of current levels, and hauling out the logs on the twelve hundred miles of new roads it will build. Current science tells us that old forests are just about the best carbon sinks available. I guess the BLM does not interest itself in global warming and the fate of the planet! Whatever small protections watersheds and streams have enjoyed will be cut in half. So much for enhancing and protecting anadromous fish populations! You will be affected by the new BLM plan. Close to Eugene there are important ancient habitats in the Coburg Hills, outside of Alvadore, in the Marcola area and in the Siuslaw and McKenzie watersheds that would be logged. Advocates for WOPR see it as the answer to the county funding problem, but that is the same old story. Once the timber is gone, so is the revenue. Were the counties to be paid for the

forests' carbon sequestration and local people paid for necessary restoration projects like thinning and road decommissioning we would have a long-term positive economic stimulus instead.

The BLM received nearly thirty thousand comments, mostly negative, when it released its first WOPR draft. Now it has reopened a limited commentary period for the next thirty days. If you wrote a letter before, you may comment again, to say how the plan as published does not answer your previous objections. But if you did not write a letter, what can you do? If you share my disgust with the WOPR you can write a letter or postcard, Right Now, expressing your dismay at the BLM's rape and run tactics of forest management and send it to Governor Kulongoski, 160 State Capitol, 900 Court St. NE, Salem, OR 97301. Then send copies to Senator Wyden, to Senator-elect Merkley, and to Representative DeFazio. We must keep WOPR from going into effect now! We don't want any more big stumps! This is the dawn of a new era for our country. Please help to make sure that it will be a green era for our beloved Oregon.

Reida Kimmel

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## LOOKING UP, FINDING THE WAY

I spent the middle weeks of October staying at a ranch on the Modoc Plateau in northwestern California. One of the wonderful things about this juniper and ponderosa highland is the clarity of the sky at night. We arrived the evening of the full moon. What a glorious welcome when the mystic golden disc rose over the piney ridge. As the days passed, the moon rose later and later, so that in the hours just before dawn the bright moon was still high in the sky. This phase of the moon was treasured by my friends and me during our high school hiking days. We could get up in the wee hours of the morning and not need flashlights to begin our hikes. The bright moon high in the western sky would light our way until the sun brightened the eastern sky.

On toward the new moon (a strange name for no moon), the night sky was dazzling in the absence of the moon. The first time I looked up at a moonless Modoc sky I was frustrated at how hard it was for me to find the big dipper and the north star. Finding the north star has always been an important skill for me. One of my favorite stories is how this knowledge saved me from a miserable, wet, cold

night in the open. So it was a bit disorienting to be lost in the sky because of too many stars! Here in town, the sky is so obscured by urban light pollution that only bright stars of constellations like Ursus (the big dipper) and Cassiopeia really stand out.

Eventually, I learned to recognize the proper parts of the sky above the ranch. Late in the year the big dipper can be hard to find because it is so low in the sky that it can be lost in low clouds or haze above the northern horizon. I have finally gotten good at finding the "Big W" (my personal name for the stars of Cassiopeia) nearly directly across the north star from the big dipper. It is a little trickier to use because the north star is not lined up with two stars like the end of the big dipper. It is necessary to practice looking.

Walking at night on a clear starry night in Modoc is a real treat. It has been a long time since I have been in a place where the skies are so clear that the stars provide enough light to walk by. It helps to have a dark road bordered by swards of pale, dry grass. Unlike stepping out in the moonlight, hiking by starlight takes a little time to work right. I recall

the part of Richard Rhodes' "The Making of the Atomic Bomb" where he describes Rutherford and his assistants sitting in pitch darkness telling jokes and playing word games until their eyes' dark adaptation was enough to detect the flashes of atomic particles hitting a fluorescent screen. It took about twenty minutes of walking before I could be really comfortable hiking by starlight. Fortunately, on the Modoc Plateau there are so few cars that none came by to ruin my dark accomodation. Reida Kimmel recently mentioned how somebody was amazed that she could tell which was north on an overcast day. She pointed out that this time of

the year the sun is low enough in the sky that the sky is clearly brightest in the south. And I replied with my observation that the best time to track a compass direction in cross country travel is when the sun is low and bright. Use the compass to determine the direction, then mentally mark the angle between your direction of travel and the shadow of trees. It is easy to keep on this angle without constantly pulling the compass out of your pocket.

David Wagner

## Events of Interest in the Community

### Audubon Society

**Tuesday, 25 November, 8:00pm. Exploring Lane County Audubon's School Programs**

by Debra Eichner and Kris Kirkeby

### Mount Pisgah Arboretum

34901 Frank Parrish Rd., Eugene, 97405. Located off I-5 Exit 189, 15 minutes southeast of Eugene.

**Saturday and Sunday, 15, 16 November, 10am-4pm both days. Mushrooming on the Mountain.** This intensive class for beginning 'shroomers offers instruction on identification, ecology, folklore and more! Come prepared to expand your knowledge of Oregon's diverse fungi. Maggie Rogers of the Oregon Mycological Society will lead the class with interactive demonstrations, discussion and field identification. A 'shroom hunt will follow Maggie's presentation. This class is geared toward people who want to get to know the entire amazing kingdom of Fungi, rather than those who just want to find the ones you can eat. \$60/\$50 MPA members. Call Clare at 747-1504 or email [mtpisgjjp@efn.org](mailto:mtpisgjjp@efn.org) for more information or to sign up.

**Saturday, 22 November, 10am-2pm. Play in the Rain.** Youth in Nature Partnership hosts an Exploration Day where local outdoor recreation and education organizations and clubs will come together at Mt. Pisgah and lead several exciting activities, games & workshops for you and your family. Our goal is to get kids outdoors immediately! There will be scavenger hunts, campfire cookery, hikes, horseback riding, arts n crafts and MORE! The sky is NOT the limit for enjoying the great outdoors! More info: [www.YouthInNature.org](http://www.YouthInNature.org)

**Saturday, 22 November, 10am-1pm. Silk Painting Workshop.** Let the rich colors of the Arboretum in winter inspire you while learning the ancient

Asian art of silk painting. Silk painting artist Meredith Ferrell will instruct students on how to create their own designs using silk dyes with a paintbrush and resist. Participants will make beautiful wall hangings finished in a 10" hoop to take home and keep, or give as a holiday gift. Beginners and those who "can't draw" are encouraged to attend! All materials provided. \$30/\$25 MPA members.

**Saturday, 6 December, 10am-2pm. Herbal Holiday Gifts.** Consume less and create more this holiday season, by making your own high-quality gifts from the heart. Herbalist Sherri Brown will help participants make herbal honey, kahlua, herbal oil and vinegar blends, tea, and smudge sticks. Sherri will provide most materials; participants will bring a few common items from home. \$35/\$30 MPA members.

**Sunday, December 7, 1-3pm. Winter Nature Crafts for Kids.** At the Eugene Garden Club, 1645 High St. (location subject to change, so please RSVP). Come along with the kids to this annual crafts extravaganza with Mount Pisgah Arboretum staff and nature guides! Get messy and merry with holiday cards, acorn dolls, pinecone reindeer, ornaments and more, all with an outdoorsy theme. This is a great chance for kids of all ages to hand-make some holiday gifts from the heart. Please RSVP at (541) 747-1504 before Saturday. \$5 per kid, grownups free with child.

**Sunday, 7 December, 10am-noon. Life Among the Mosses Walk.** This is our annual celebration of the little folks of the plant world. In contrast to the flowering plants of spring and summer, the mosses and lichens are most active and happy around the time of the Solstice Festival. Botanist and Eugene Natural History Society President David Wagner will tell moss stories and weave lichen yarns to help us appreciate the elfin world of mosses, liverworts, and lichens. Meet at the Mount Pisgah Arboretum Visitor Center, rain or shine. Fee: \$5 (MPA members free!) Limit 20.

Call Clare at 747-1504 or email [mtpisgjp@efn.org](mailto:mtpisgjp@efn.org) for more information or to sign up for an of the Arboretum activities.

### **North American Butterfly Association**

**Monday, 1 December, 7:00pm Refreshments, 7:30pm Presentation. The Glorious Butterflies of the Rio Grande Valley and the Development of the New NABA Butterfly Park.** EWEB Training Center, 500 East 4th Ave, Eugene. The Eugene-Springfield Chapter NABA presents Jeffrey Glassberg, founder of NABA and author of several books on butterflies. His books opened butterfly identification to recreational enjoyment of everyone. The Rio Grande Valley is a Butterfly Lover's paradise with over 300 butterfly species recorded there. The NABA Butterfly Park includes some 80+ acres of land along the Rio Grande River which is being restored with native host and nectar plants for butterflies. Glassberg will describe the NABA Park's development and restoration of native plants which have had great success in attracting exotic tropical butterflies from Mexico. Expect to see many exceptional butterflies including the Mexican Bluewing. Also, Banded Daggerwings, Two-barred Flashers, and many more.

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

**Monday, 17 November, 7:30 pm. Applying Ecological Principles to Prairie Restoration Projects.** EWEB Training Room at 500 E. 4<sup>th</sup> Ave., Eugene. Trevor Taylor, an ecologist with the City of Eugene, will discuss a theoretical ecological framework for restoration of self-sustaining prairies in West Eugene. Call 541-746-9478.

**Monday, 15 December, 7:30 pm. Holiday Social and Slide Show.** EWEB Training Room at 500 E. 4<sup>th</sup> Ave., Eugene. Bring 10 to 12 slides and a snack to share if you wish. Come and socialize with others who share your interest in native flora. Call 541-746-9478.

	City _____	State & _____
	Zip _____	
<b>Thank you, volunteers!</b> These folks helped with the ENHS booth at the Mushroom Festival on 26 Oct.		
	<b>ANNUAL DUES:</b> Contributing	
	20.00	
		Family
	15.00	
		Individual
	10.00	<b>Generosity is</b>
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	Do you have any special experience in natural history? _____	
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**We welcome new members to fill out the form below and receive *Nature Trails* through December of next year. Membership payments allow us to give modest honoraria to our speakers, as well as to pay for the publication and mailing of *Nature Trails*. Please mail your check to Eugene Natural History Society, at the address below.**

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**ENHS Schedule of Speakers and Topics, Remainder of 2008-2009**  
**21 November 2008** - Peter Wetherwax, Research Assistant Professor of Biology, University of Oregon

"Honey Bees -- just one in 20,000"  
**12 December 2008** - Dick Lamster, past president, Lane County Audubon Society

"Thinking inside the box: bird nests."  
**16 January 2009** - Joe Moll, Executive  
Director, McKenzie River Trust  
"Why is there a river in my forest?"  
**20 February 2009** - Bitty Roy, Professor of  
Biology, University of Oregon  
"Biodiversity Hotspots Around the  
World"  
**20 March 2009** - Emily Steel, Restoration  
Ecologist, City of Eugene  
"Green Gold: West Eugene's grassland  
communities"  
**17 April 2009** - Steve Sillett, Associate  
Professor, Humboldt State University  
"Ecology and Physiology of the World's  
Tallest Trees"  
**15 May 2009** - Bruce Mate, Director, Marine  
Mammal Institute, Newport, Oregon  
"The Biggest and the Deepest: Tracking  
Whales"

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