

# *Nature Trails*

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Sheep Mountain field school, opening day 2009.

## **Sheep Mountain Clovis Site Archaeology**

Dr. Patrick O'Grady, Staff Archaeologist

Museum of Natural and Cultural History

**University of Oregon**

**Friday, 20 January 2012, 7:30pm, Room 100 Willamette Hall, UO  
Campus**

What is it about third-grade teachers? They have this knack of observing their diminutive charges and predicting what will become of them. And sometimes subtly helping them along their way. Mrs. Cook, our January speaker's third-grade teacher, noticing the books he was checking out of the library, told young Patrick it looked like he was on his way to becoming an archaeologist.

Patrick O'Grady grew up in the Medford area, where he developed a love of the outdoors as a youngster. Bird watching, fishing and hunting got him out in nature early on. His addiction to the desert country of eastern Oregon began with a trip to Steens Mountain when he was nine. His first impression wasn't good, but it must've grown on him because he couldn't wait to go back the next year. Now, some years later, he's managed to get set up so he's in eastern Oregon part of every year. You have to hand it to the man.

O'Grady has all of his degrees from the University of Oregon. He graduated Magna cum laude in 1996 with his B.S., obtained his M.S. in Anthropology in 1999 and his Ph.D. in 2006. Both M.S. and Ph.D. projects were under the direction of Dr. C. Melvin Aikens. His Ph.D. thesis, entitled "Before Winter Comes: Archaeological Investigations of Settlement and Subsistence in Harney Valley, Harney County, Oregon," describes his examination of land-use patterns in wetland and upland areas of this large, relatively well-watered valley by humans in the mid- to late-Holocene. This thesis title still describes much of his present research interests.

Before he became a Staff Archaeologist for the University of Oregon's Museum of Natural and Cultural History, but while working on his Ph.D., O'Grady worked for several years as an archaeologist for the Oregon Department of Transportation. He has also done archaeological work for the U.S. Bureau of Land Management in eastern Oregon. The BLM provided a significant share of the financial support for his graduate work.

O'Grady already has an impressive list of publications and presentations, less than six years out from his graduate studies. He also has considerable teaching experience, including 14 seasons with the University of Oregon Field School. When I asked him what it was like, teaching in the Field School, he lit up. "It's the hardest work, but the most fun of anything I do," he said. Students come from all over the U.S. and from other countries, most with little or

no camping experience. He said many of them can't believe it when they first arrive at the site – always somewhere in the Oregon desert. (A panoramic photograph of the last location hangs in his office/laboratory. Here is this speck of white canvas in the middle of a vast, unbroken stretch of sagebrush with the very occasional Juniper, and foreboding hills in the distance.) The new students' jaws drop open and they intone something along the lines of "Is this it?!" But they don't complain. In fact, more and more people are volunteering part of their vacations just to be a part of the team, embracing the desert experience.

There are over twenty-nine thousand archaeological sites in Oregon. In only five of these have multiple Clovis artifacts been found. One of the five is the Sheep Mountain site, which will be the focus of

O'Grady's talk to us. Archaeologists have known of this site only since 2005. After a fire swept the region bare of vegetation a BLM archaeologist, Scott Thomas, scouted the area. At what is now called the Sheep Mountain site he stopped, looked around, and thought "This would be a good place for a site." When he glanced down he saw between his feet a perfect Clovis point (O'Grady took it out of its bag and let me hold it. It left me in awe. What exquisite workmanship.). Thomas told O'Grady about the location, and in 2008 O'Grady came and looked around. He found a second Clovis point. This is a big deal. Until he talked about it I didn't

recognize how much more important two is than one. But it makes sense. One point could mean lots of things. It got dropped out of a bag. It was on the end of a spear a hunter lost. But two? Finding two in the same small area increases the likelihood that that area was a habitation. Something like that. He'll explain it better.

O'Grady clearly loves his work. I could sense the awe and respect he has for these ancients as he talked about how they were so attuned to their environment, how they hunted megafauna that are now extinct: camels, mastodons, ancestral bison... and had to protect themselves from other apex predators.

Clovis people were here sometime around 13,000 years ago, left a record for about 1000 years and then evidence of their presence disappears. But some evidence for their presence in what is now our state has been found at a location close to Sheep Mountain. Come and listen to Dr. Patrick O'Grady tell us about what they've found there in the past few



years. It cannot help but be an exciting evening. His talk is entitled Sheep Mountain in Clovis Site

Mrs. Cook, to the extent you helped set O'Grady on his path, we thank you. Oregon thanks you.

John Carter

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Archaeology. It's in Room 100 Willamette Hall on the U of O campus, at 7:30 pm on Friday, 20 January.

## President's Corner

### Worrywart

by Tom A. Titus

Surely I have lived here too long. I didn't celebrate when the rains of November and December didn't come. After one hard storm, the rains stopped. And as one rainless, foggy day smudged and grayed and blurred imperceptibly into another, I began quietly to fret about it, as though the pipes in my house were plugged and I wasn't able to figure out the where or why of the obstruction. Without the rains, things just haven't been right.

So I worry; worry that the Coho salmon have not yet returned to Bear Creek. My friend and fellow ENHS member Jerry Gatchell keeps track of these things and worries with me. As of late December Jerry hadn't yet seen a fish, only heard a single splash below the culvert under the road, and it might have been a beaver or an otter.

Anadromous salmonids really push my buttons. I love to think about them, wait on them, watch them, catch them, eat them. I love their prodigal lives—leaving their natal streams to get rich on ocean resources that they transport home when returning to have their children and die. I love the centuries over which human lives have become entwined with the lives of salmon.

Of all the salmon, Coho have become my first love, perhaps because my maternal roots are so deeply grown into upper reaches of the Coast Range. The fish have co-evolved with the peculiar ecology of the mountains. An important part of that ecology is the fall and early winter deluges that normally fill the filamentous network of small lower-order streams that otherwise only murmur through steep-sided forested canyons. Without rain there simply isn't enough water to make these little creeks accessible to two-foot-long adult salmon. The rains have not come. But Jerry and I worry with hope; that the water will be here in time, that the fish will find spawning sites with adequate flow somewhere downstream.

Coho need rain and big trees. The storms will come whether the trees are there or not, and when rain falls on unprotected slopes, soil washes into the streams, silting up spawning gravels. In northern California, the Mattole Restoration Council has a "zero siltation" goal for the Mattole River because silt clogs spawning redds, reducing the flow of water through

the gravel and decreasing the delivery of oxygen and the removal of waste products for salmon embryos nestled within. So Coho need the water that the rains bring but not the silt that comes with it when the landscape is treeless.

Coho need big trees that fall into the creek and become big logs that break the heavy flow of winter water, providing eddying pools that are refuge from strong currents. Coho fry are chubby and cannot hold their own in fast water as can the more fusiform fry of steelhead and Chinook. Once, the large logs were a constantly replenishing resource, but the trees were taken out during the timber boom of the last century. To make matters worse, well-meaning people have removed down wood from spawning streams, thinking that logs were a barrier to fish passage. So the water has run unabated from the logged-over hills, sweeping Coho fry remorselessly downstream.

Coho need big trees because the fry spend their first year in lower-order streams high in the watershed and need cool water coming from shaded seeps and springs and feeder creeks. Denuded, sun-baked hillsides make for warm water with lower dissolved oxygen. Although reforestation following logging is absolutely required, second growth forests transpire more water per acre than do old growth stands, sending water into the atmosphere that might otherwise have stayed in the creeks. Juvenile fish become crowded into smaller pools where they compete more directly for food and are more likely to be eaten. They do not grow as well, and smaller juveniles are less fit for their journey downstream, less fit for life in the ocean. Our annual summer drought will always bring warmer water, always reduce stream flows, but these effects become exacerbated when trees become two-by-fours.

Coho need big trees. We have finally learned this. But I worry that, despite what we have learned, we change too slowly. Coho need all the things that big trees provide, all in the same place and at the same time. Last September I returned from Charleston by following Weatherly Creek north from the lower Umpqua River, over the ridge and down Big Creek to Upper Smith River. I thought this would be a scenic route home, but it became a harrowing trip through thousands of clearcut acres covered with small fir seedlings all less than ten years old, interspersed with broadleaf species scorched brown by herbicides. Bare

slopes were punctuated with landslides. The devastation continued down Big Creek on the Smith River side until finally, on lower Big Creek and within a few miles of Smith River, the road entered a mature forest. In those last few miles, Big Creek dribbled from pool to pool several feet beneath a series of large logs that had been felled at regular intervals across the stream in what was clearly an effort at fish "habitat restoration."

Are a few downed logs better than none? Yes. And at least someone is paying attention. Still, I didn't know whether to laugh, cry, or cuss, so I chose all three. The upper reaches of the watershed had been devastated by logging that had removed truckloads of trees. Now the late summer water was being evaporated and transpired, and what was getting into the creek had been warmed by the unshaded sun. In a few months winter rains would carry soil off the open hills into the creek, silting up spawning gravels. Can all of this destruction be mitigated by a few logs felled into the creek? Did I say that Coho need big trees?

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The gray skies of Christmas Day finally sent the gift of rain. Several inches of it slashed downward in windy sheets throughout the following week, streaming off the hills in muddy torrents. But the storms soon stopped and were replaced the following weekend by unfamiliar winter sunshine. At predawn I drove deep into the Coast Range. Tangerine and pink fingers of light caressed the eastern ridges while a blood-orange moon slowly sank behind the black western skyline.

I stopped to pick up Jerry, and we made the trip to Bear Creek. Yellow shafts of sun slanted through ancient fir, hemlock, and red cedar as we picked our way through the understory of twisted jade green trunks of vine maple. The high water having receded, the stream was now only a narrow ribbon of water a few feet wide, burbling within its bed of sandstone. In a small pool of milky water beneath my feet a battered pair of Coho fanned in the gentle current, the hen and buck each a collage of tattered whiteness and colors of this morning's sunrise.

Do I worry too much?

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## **The Silence** by Reida Kimmel

Late one night in mid-March with a ewe looking suspiciously like she was going into labor, I set the alarm clock to go off in an hour. It failed to ring. I awoke two hours later, and ran to the barn. Of course there was a lamb, a breech delivery, and it was dead. Maude the ewe was licking a little lump, the

afterbirth, I thought. But no, it was a tiny lamb, a preemie most likely, as multiple conceptions a heat cycle apart do happen in sheep. The thing was barely alive, but I got it to suckle a little and went to bed feeling pretty hopeless about the newborn. The lamb, a white ewe with pretty tan markings, was not dead in the morning, but she was too weak to suckle or stand. I put a blanket and hot water bottle in a shallow box so she could keep warm. Chuck and I cornered the mom, a very wild old lady, and milked her. Neighbor Meg came down several times that day to tube feed the little mite. And so Bernadette entered our lives. Twice a day we milked Maude, who never became any tamer, and I bottle-fed her baby, whom she loved and tended just as if it were normal. Three times over the next two weeks we nearly lost Bernadette, but she always revived, and grew quite strong really, though she remained tiny. By late spring my lovely pet baby sheep had graduated to big bottles of goat's milk. She grew the softest fleece of any lamb we have ever raised. We bought her a friend, a lovely gray Shetland lamb, Delia. Those two and our one ram lamb grew up to be tame. I sat with them and patted them most afternoons at feeding time. In October, the boy lamb, Sweetheart, went with Maude and Beauty, our two adult ewes, to do his duty as a sire. The baby girls stayed in the hill pasture behind our bedroom. Bernadette liked to chew gently on my fingers. Delia was a bit noisy. They were always at their pen by the gate to the woods when I came back from my afternoon walk. On Halloween evening I chastised Bernadette for biting too hard and promised Delia that I would pull those nasty briars out of her fleece the next morning.

There was no next morning. I found Delia dead in the pasture not far from the pen. Little Bernadette's body was gone, though parts of it did reappear a few days later. The kill mark, Delia's broken bitten neck, told me immediately that the killer had been a cougar. But the characteristic paw prints in the mud near Delia, showing sharply defined pads and no claws, were two very different sizes. So the killers were two cougars, one a large cat and the other small. A mother was teaching her cub to hunt. I could not pen the three remaining sheep that evening. They were too spooky. I did not worry too much. After all, the cats had plenty of meat already to enjoy. The next morning Maude was lame, a big patch of wool torn from her back. Beauty was dead, partly eaten. With help from a friend we were able to drag Sweetheart and Maude to a safe barn. We built a little yard around it for pasture, a waste of time. Though Maude recovered from her injury, and Sweetheart was never hurt, the two sheep huddle all day in the pen. A few

times a day Sweetheart goes out for a while and stares about him before dashing inside. Maude just lies or stands in the darkest corner of the little barn. I have never heard either of them utter a sound. They will never be well. The butcher is coming tomorrow.

What does a liberal, a lover of wild things, do when confronted with this situation? My response, and Chuck's, was immediate, pure blood lust. Chuck got on the phone trying to hire the government trapper. Our neighbor Duane, who had just seen four deer killed but not eaten on the land he manages, loaded his gun onto his ATV and spent the day hunting. Fortunately for the cougars, Lane County no longer funds the government trapper, so we were on our own. Duane did not use the carcasses as bait nor did he place snares on them, so the cougars escaped punishment. I do not think Duane really wanted to kill that "big old Momma cat" that he'd seen with young for several years. In a day our rage evaporated, replaced by deep unspeakable sorrow. But for the first time I felt – I knew – just how the ranchers who hate wolves feel. When things you love or your livelihood are threatened, you just can't think of the big picture, the ecosystem, the planet, or the 'right' thing to do.

In more than thirty years we have only lost one other sheep to a cougar, and that sheep was old, crippled, and ready to die. Why this killing now, by a female that very possibly has been in the area for years? The answer may lie, as do most other horrible things in our neighborhood, with clear-cut logging. Recently the private landowners and timber companies have been reaping a bonanza from the Chinese building boom. Never have we seen so many acres stripped. There just are not many trees left in our old haunts. Most recently seventy-five acres of big old trees were clearcut, less than a mile as the disappearing raven flies, southwest of us. The other half of this forest will go in the coming summer. Guistina and other timber companies plan to strip the trees from their lands to the south of Fox Hollow, along the ridge that extends from Hamm Road to Cottage Grove. The logging displaces all the forest's inhabitants. There are fewer places to shelter, and the extensive aerial spraying of herbicides reduces forage for deer, rodents, and birds. Where can they flee but to the valley farms and small woodlands? And so the cougar follows, learns to kill livestock, and probably increases her chance of being killed as well.

Oregon's Department of Fish and Wildlife says that there are about 5700 cougars in the state. That estimate may be high, but it reflects a tremendous resurgence in population from the late 1960s when

there were perhaps only one hundred cougars in the state. The 1994 ban on hunting with dogs surely helped the cougar. At present the state sells sport-hunting licenses. Last year's annual quota was for one hundred and twenty kills and this quota was met. An additional fifty-nine cougars died as road kill or were shot as nuisances in 2011. In the latter case, the use of snares and dogs is legal. Knowing what I know about our neighborhood's politics, a much larger number of cougars are killed, but of course this illegal poaching goes unreported.

In 2006 Robert Beschta and William Ripple, both from OSU, studied the mysterious decline of cougars in Zion National Park and its effect on the park's ecosystem. Outside the park, cougars were flourishing in a healthy environment, but inside the park the pressure of humans and cars, 70,000 visitors a year, had driven the shy cats away. In the park there were fewer cottonwood trees, especially young trees. All sorts of species from butterflies to amphibians and wetland plants were in decline, while the deer population was soaring. It appears that the top predators, the cougars, keep the whole ecosystem balanced and healthy, just as do the wolves Ripple studies in Yellowstone Park. Cougars are very important animals. I the hobby farmer am as much an intruder on their property as the greedy logging companies or the hordes of well-meaning tourists in Zion National Park.

Much as I wish I could, I cannot stop logging, and the battle to stop herbicide use in forestry has barely commenced, but I can try to make changes in my own life that will reduce, perhaps even end, cougar-Kimmel conflicts. Cougars are most active at dawn and dusk. We will have sheep again, but fewer sheep, very tame sheep that will be trained as lambs to be penned inside every evening. We will cover the open sides and the windows of our sheep pens with heavy welded 'hog fencing', and we will install good strong doors. Our new little Shetland ewes will be as safe as possible. And at long last we will do what we have known for years to be the right thing to do for our land. We have ordered the trees. Soon our hill pasture and half our north pasture will be covered with tiny trees: firs, cedars, pines – the historic natives. The new forest's edges will have bigleaf and vine maple, madrona, and alder. Neither we nor the cougar will live to see the new forest mature. Her descendants might. For me the vision of our land returning to its ancient beauty is enough.

# Out and About

*“Out & about” is a periodical encouragement to Eugene Natural History Society members to get out and experience our magnificent Oregon.*



## Yachats

Witness the power of a winter storm by the shore at Yachats State Park. Time your visit to arrive an hour before high tide and, from a safe vantage point, watch the increasing action of the waves in the coves and around the offshore rocks.

In the web version of NT (Go to <http://biology.uoregon.edu/enhs/> and click on Newsletter) the Out and About photos are in color (the cover photo is, too). But note: the current issue of NT doesn't appear on the website until after the meeting.

## Events of Interest in the Community

### Lane County Audubon Society

**Tuesday, 24 January, 7:30 pm. Birds, Bats, and Wind Energy—An Unnatural History.** Jim Maloney will summarize the current status of the issues related to wind energy. He will approach the subject from a natural history perspective and suggest that more attention to and regulation of the placement, design, and operation of proposed facilities could reduce impacts. Eugene Garden Club, 1645 High St.

### Mount Pisgah Arboretum

34901 Frank Parrish Rd., Eugene, 97405. Located off I-5 Exit 189, 15 minutes southeast of Eugene. Call Peg Douthitt-Jackson at 541-747-1504, email [mtpisgjp@efn.org](mailto:mtpisgjp@efn.org), or look at <http://mountpisgaharboretum.org/> to find out about current Arboretum activities.

### Nearby Nature

**Monday 16 January, 9 am – noon, and Saturdays, 4 and 11 February, 1 pm – 4 pm both days. Restoration Celebration.** Join Nearby Nature and U of O volunteers for a restoration work party in honor of Martin Luther King Day of Service in **Alton Baker Park!** Tools and gloves provided. Bring a refillable water bottle.

**Friday 27 January, 8:30 am – 3 pm. Rah Rah Rot! No School Day Program.** Fungus, bacteria, insects - oh my, the FBI! Discover and uncover the forest's mighty recyclers. Watch worms at work, make art from nature's leftovers, and go on a scavenger hunt for the fungus among us. \$30 for members and \$35 for non-members. Programs are limited to 12 children and scholarships are available, so enroll soon! Call 541-687-9699, ext 2.

## Museum of Natural and Cultural History

Wednesdays, 11, 18, and 25 January, 11:00 am – 5:00 pm. Free Admission Wednesdays.

Fridays, 13, 20, and 27 January, 1:00 pm and 3:00 pm. Guided Tours.

## Native Plant Society of Oregon, Emerald Chapter

For information on current activities contact [ngap@emeraldnpsoregon.org](mailto:ngap@emeraldnpsoregon.org) or look at <http://emerald.npsoregon.org/>

**Monday, 23 January, 7:30 pm. Biomimicry in Nature.** William Orr, retired professor of geology, will discuss dozens of plant and animal adaptations that we, in our hubris, imagine as our own innovations. Some of these include: camouflage, zippers, snap fasteners, plywood, paper manufacturing, Velcro, and tattoos. He and his wife, Elizabeth, are the authors of many publications including several very popular books on geology of Oregon. Location: EWEB Training Room, 500 E. 4th Ave., Eugene. Information: 541-345-5531.

## WREN

For information about upcoming events call 541-338-7047 or email [info@wewetlands.org](mailto:info@wewetlands.org). You can also go to their website: <http://www.wewetlands.org/>

## Emerald Chapter of the North American Rock Garden Society

Call Tanya at 541-937-1401 with questions about future programs, or look at <http://nargsemerald.org/calendar>

## North American Butterfly Association, Eugene/Springfield Chapter

**Tuesday, 7 February, 7 pm – refreshments; 7:30 pm – presentation: Event: Butterflies of Ecuador.**

**By Neil Bjorklund, Former NABA-E/S President & author of *Finding Lane County Butterflies*.**

Neil Bjorklund will share an ecological and physiographic view of Ecuador and its portion of the great Amazon River Basin, and the butterflies he found there during a three-month visit. EWEB Training Center at 500 4th Ave., Eugene. FREE, all are welcome.

**We welcome new members! To join ENHS, fill out the form below. You will 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*.**

**Our web address: <http://biology.uoregon.edu/enhs/>**

## MEMBERSHIP FORM

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Address \_\_\_\_\_

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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:	Contributing	20.00
	Family	15.00
	Individual	10.00
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**Annual dues for renewing members are payable in September. Memberships run from September to September. Generosity is encouraged and appreciated.**

The following information is voluntary, but appreciated:

Would you like to: \_\_\_ lead field trips \_\_\_ teach informal classes \_\_\_ work on committees?

What would you like to hear a talk on? \_\_\_\_\_

Do you have special experience in natural history: \_\_\_\_\_

INTERESTS: \_\_Archaeology\_\_Astronomy\_\_Bird Study\_\_Botany\_\_Conservation\_\_Geology\_\_History of  
Science\_\_Herpetology\_\_Meteorology\_\_Mosses & Lichens\_\_Mushrooms\_\_Nature Walks\_\_Wildflowers  
\_\_Zoology\_\_Other\_\_\_\_\_

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**If you are an ENHS  
member who currently  
receives NT through the  
mail and you wish to begin  
receiving it electronically,  
contact Ruth BreMiller at  
brem@oregon.uoregon.edu.**

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## **ENHS Schedule of Speakers and Topics for 2011-2012**

**20 Jan. 2012** – Pat O'Grady – Sheep Mountain Clovis Site Archaeology  
**17 Feb. 2012** – Greta Binford – Evolution of Spider Venom  
**16 Mar. 2012** – Gordon Grant – Willamette River Hydrology  
**20 Apr. 2012** – Deanna Kingston – Traditional Ecological Knowledge of Inupiat  
**18 May 2012** – Robert M. Pyle – Butterflies

## **ENHS OFFICERS AND BOARD MEMBERS 2011-2012**

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