

Nature Trails

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The Waldo Hills at Twilight

Landscape History of Oregon's Waldo Hills, and Beyond

Tina Schweickert

Environmental Historian

Corvallis, Oregon

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

Historian. Environmental historian. Public servant. Environmentalist. Conservationist. Farmer. Educator. Author. Publisher. This is an incomplete list of descriptors for our April speaker, Tina Schweickert. Clearly, this woman has many hats in her closet, none of them gaudy, all of them well fitted.

When Schweickert came to Oregon she settled in the Waldo Hills, east of Salem, landing first in Silverton, in 1976. Two years later she moved to a farm, a 90-acre parcel midway between Salem and Silver Falls State Park. Although she now lives in Corvallis Schweickert and her husband still own that farm, and her son lives on it. About half of it is still actively farmed, either planted in grass seed or kept in pasture, while the other part is set aside as a wildlife preserve. She gets over there once or twice a week, so in a real sense she has maintained a presence in the Waldo Hills for all the time she has lived in Oregon, now going on 26 years (almost long enough to qualify for citizenship). Considering the things Schweickert has done in that time – the positions she has held, the causes she has championed, her writings – it is clear that the Waldo Hills have shaped her life.

Schweickert grew up in Pasadena, and early on had a typical city-person attitude about nature: bugs and such things were a bit off-putting. But at age 16, newly possessed of her driver's license, she headed for the hills – big hills, actually: the San Gabriel Mountains. This exposure to the natural world began to change her attitude, but the single biggest influence in this regard was Earth Day, 1970: the first Earth Day. Her experience on this special day started her along her life's path of environmental activism.

Schweickert entered Pasadena City College after high school, getting her A.A. in Fine Arts and Biology, and then made the move to Oregon. She raised a family, and when her children were of school age she continued her own education, enrolling in the Environmental Sciences Program at Willamette University. In two years she finished her B.S. degree, writing her thesis on *Environmental Education: Its Goals and Implementation within the Schools of Marion County, Oregon*.

Next, Schweickert applied for and was awarded a position in Oregon's Natural Resources Management Trainee program. She worked with the Oregon Departments of Forestry, Water Resources, and Land Conservation Development, developing a broad knowledge of forest issues in the state. After this 18-month training period she entered her public service career, working first for the City of Salem Public

Works Department as the Water Resources Coordinator, and then for the City of Salem Planning Department as the Natural Resources Manager. The biggest issue she dealt with was water quality. The flood of '96 exposed big problems with the city's drinking water source. The culprit turned out to be logging practices in the headwaters region of the N. Santiam River, but getting to that conclusion took a lot of collaborative effort. Schweickert was a critical player: she put together a proposal to USGS for \$600,000 for monitoring water quality, which was fully funded and which enabled the necessary data to be gathered. For an added bonus, she got to work with Senator Mark Hatfield as a part of the Opal Creek Mediation Group, and later was an advisor to the Opal Creek National Scenic Recreation Area Advisory Council (ENHSers who have been on one or both of our trips to the Opal Creek Ancient Forest Center, note that the city of Salem and its water-quality issues played a critical role in the decisions that led to this wonderful place being preserved in its present guise.).

Her work and her farm sensitized Schweickert to the effects of humanity on the environment, and she came to realize she needed to continue her education. She found a good fit for her interests at Oregon State University in the History of Science Department, where the department head showed her how she could develop a graduate program around the history of ecology and the history of

recent human effects on the environment. The title of her M.S. thesis, *The Effects of Thomas Jefferson's Rectangular Survey on a Northwest Landscape*, caught my eye and made me think about how profoundly this arbitrary divvying-up has affected my own view of my surroundings. Schweickert's work plumbs that survey for changes in both landscape and cultural characteristics. In her talk she will share a bit of this with us, weaving in some about the Native people and what inspired their management, as well as touching on the changes wrought by the Euroamericans when they (we) showed up. She will cover a bit of the changes in fauna as well as flora. She showed me some prints of survey material from the Waldo Hills, with copies of original survey notes attached, compared to drawings she has made from her detailed analysis of the 1851 survey notes. Her drawings depict the landscape at this cusp of change between Native and Euroamerican management Her excitement as she pointed out details was contagious. I'm sure we'll see the same in her talk "Landscape History of the Waldo Hills, and Beyond" on 20 April at 7:30 pm in Room 100 Willamette Hall



on the U of O campus. Don't miss it, and bring a friend. John Carter

Ancient History Gets Even More Ancient

By Reida Kimmel

It is always so exciting when the things we learned in school get utterly turned upside down. Take the recent research by Dennis Jenkins, Jon Erlandson and others, showing that the earliest Americans arrived on our continent several thousands of years before our old textbooks told us they had, and that they probably came by boat, not overland. Now evidence that has been meticulously gathered over the past three decades just might completely overturn our assumptions about Native American civilization in the millennia before the European invasion.

The flat, rich land beside the Missouri, Mississippi and Ohio Rivers is called "the American Bottom". When French explorers arrived in the 1600s, they found the area dotted with very large pyramid shaped earthen mounds, built by an earlier people, but completely abandoned. The Native Americans living near the mounds did not know who had built them. Those vanished people did not even figure in their stories. And yet these mounds had only been abandoned for a few hundred years. Farmer settlers grew crops on the mounds, or plowed them down. Most, especially in the St Louis area, were destroyed. Just how large were these mounds? The best preserved is Cahokia Mounds, a World Heritage Site in Illinois whose 2200 protected acres are an archeological treasure trove. People of what we call the Mississippian Culture began building in this area about 1000 C.E. The largest mound is Monk's Mound, 100 feet high, 955 feet long and 775 feet wide, larger than the base of the Temple of the Sun at Teotihuacan, Mexico. It is constructed, as are all the mounds, of earth, clay and sods, not surprising building materials in an area where rock is a rarity. Atop Monk's Mound there once was once a huge building fifty feet high, and beside that a circle of posts that might have been an astronomical observatory. Below Monk's Mound, the inhabitants of the city leveled out a plaza fifty acres in size. Indeed, Cahokia was a city. People, perhaps as many as 40, 000 of them, lived on and by the mounds and in satellite communities in the surrounding area. They were farmers, but game was also very important in their diet. The artifacts from this civilization are lovely small polished stone carvings of people and animals, carved pipes and masks. In St Louis and East St Louis there were also urban concentrations of these mound builders. Recent salvage archeology indicates that the whole area from St Louis to Cahokia, ten miles to the East, was densely populated. Yet, by 1300 C.E.

the mounds were abandoned, the people gone, and no one knows why.

A News Focus article by Andrew Lawler in Science, 23 December 2011, tells the story of the Cahokia and St Louis area, but the exciting news in the article is about the years of research in Northeastern Louisiana, pioneered by Joseph Saunders. Native Americans built many mound complexes from southern Louisiana to the Great Lakes, and everyone assumed they were contemporaneous with Cahokia. Intrigued by hints of five thousand year old radiocarbon dates for mounds found in Louisiana, Saunders began careful research on three sites, Watson Brake, Hedgepeth Mounds, and Frenchmen's Bend. Saunders was able to confirm these remarkably early dates. Hedgepeth, a six mound site, can be dated to 3000 B.C.E. Frenchman's Bend, with its three layers of house floors and hearths, is a similar size and age. But the oldest, Watson Brake, made up of eleven mounds encircling a twenty-acre site, is five and a half thousand years old! There are many more mounds now recognized as belonging to this "Middle Archaic" period. About 1600 B.C.E. there was another flurry of mound building, the largest and most beautiful site being Poverty Point, Louisiana, which flourished between 1600 and 600 B.C.E. Artifacts retrieved at Poverty Point, stone and copper from as far as the Great Lakes and the St Louis area, indicate that it was a vibrant trading hub.

What is the most intriguing of all the mysteries that the mound builders left us? We cannot help but wonder at why these rich urban cultures collapsed without leaving a clue to their demise. Why did Native Americans not have a place for these people in their legends and stories? But Lawler points out the biggest and most wonderful mystery of all. We now know that Louisiana's mounds predated the pyramids and plazas of even the ancient Olmec people in Mexico. Their plaza and pyramid designs and proportions are similar to the awe-inspiring ruins in Mesoamerica. What if a North American Civilization influenced the rise of Mesoamerican civilization? What if the peoples of our Midwest were the innovators, the carriers of a powerful culture and technology that native Mexicans translated into stone? It's an intriguing idea demanding lots more research. But perhaps yet another 'truth' about Native Americans and their civilizations will have to be discarded.

President's Corner

It's No Place Like Home By Tom A. Titus

Palmer Station, Antarctica: I have survived so far. The easy part was 2 days of flying: Eugene to San Francisco to Mexico City then all night to Santiago plus 4 more air hours to Punta Arenas. Then came 5 days of rocking out and throwing up aboard the research vessel Laurence M. Gould in the gun barrel waters of the Drake Passage, a DMZ where the Atlantic and Pacific Oceans skirmish with 15-foot white-frosted warrior waves, pyramids of water that quartered into the ship and caused it to turn in lumbering, nauseating pirouettes. At times the spray tore loose and became Wandering and Black-browed Albatrosses, effortlessly gliding on long narrow wings, dipping and disappearing into deep watery troughs then rematerializing far from the ship.

The waves finally cast me up at Palmer Station midway down the Antarctic Peninsula, a northward-reaching right thumb attached to a continent larger than the United States with an entire population that, relative to the vast sweep of the place, is essentially zero. Yes, Antarctica is hand-wringingly mind-bogglingly life-changingly soul-stirringly beautiful. Yet at first my temperate rainforest eyes and brain registered only starkness, no nuance, no subtlety. I have come around. My hometown greens have been replaced with blues and whites and grays bending and blurring and constantly changing with the sun and clouds. The blues darken into deep crevasses and phantasmagoric frozen walls perched above the sea that crack and crumble in roaring cascades of ice falling to its death, transformed into waves surging outward to meet the rippling wind. White mountains jut into the southeastern horizon, extreme, nearly violent manifestations of rock and ice, their sharp ridges softened on most days by goose down clouds.

All that can be seen is seen. One evening we toured the surrounding islands, really not more than large piles of rock, on a Zodiak. There were fur seals and gargantuan male elephant seals with colossal floppy noses languishing on small pebble beaches. There were Adelie and Gentoo penguins hanging out on the rocks in formal wear, bellies distended from a good krill feed. There were South Polar Skuas and Giant and Cape Petrels flying with purpose beneath a thin overcast. There were humpback whales blowing bubble nets for small fish and krill, surging upward and surfacing through them, throats inflated, straining their catch through baleen. There was a leopard seal, 800 pounds of marine predator, that seemed to find a

Zodiak with a half dozen Palmerites a curiosity worth repeated hazing (we don't pet the animals!). The entire scene was surreal. I felt like Marlin Perkins on *Wild Kingdom*, or maybe his sidekick Jim (since he was the young guy).

Palmer Station is a collection of blue buildings perched on a narrow rocky peninsula between Arthur Harbor and Hero Inlet. Most human traffic moves between these buildings via a set of boardwalks. Marine shipping containers are used for supplemental storage. A short driveway runs along the south side of the station and is the primary conduit for movement of cargo off the pier. Space is very much at a premium, but the station has managed to include an institutional kitchen, a very nice dining area with expansive windows looking out on the inlet, extensive laboratory space with ultracold freezers, centrifuges, and fume hoods, and amenities such as an exercise room, a hot tub, a sauna, a movie lounge, and the all important self-stocking self-service bar.

Our stay here is short and leaves little time for recreation. We are studying the genetics of bone loss in the blackfin icefish. These bizarre fish seem to be mostly made of head, and I swear to you I've gotten more to eat off a foot-long trout than an icefish twice that length would ever provide. Icefish were once bottom dwellers and have no swim bladder, the organ that most fish (like that delectable trout) can inflate or deflate to change the depth at which they swim and feed. Icefish have compensated for this absence of a swim bladder by reducing the mineralization in their skeleton, which decreases their density and allows them to feed more easily in higher reaches of the water column. We hope to better understand the genetic component of human bone loss diseases by studying these odd fish. On the trip down we spent nights trawling for icefish and their relatives. The captives were loaded into on-board aquaria, then transferred to large circular tanks in the aquarium room at Palmer where they could be used for our studies.

No, Palmer Station is not as cold as you might think. Partly this is because of the moderating influence of the surrounding 1°C ocean water that keeps the air temperature fluctuating within reasonable limits. Yes, it should be colder. Climate change has made this outpost just north of the Antarctic Circle one of the most rapidly warming places on the planet, and this is causing major disruptions. The sea ice that used to form regularly at this latitude is no longer a dependable feature of the ecology. This is important because the



algae that grow on the underside of the ice are a vital food resource for krill, which in turn feed the fish and penguins and whales. The krill are now in decline. Loss of sea ice and an increase in snowfall have contributed to an 85% decrease in Adelie penguins, while more northern penguin species such as Chinstraps and Gentoos are dramatically increasing. King crabs that once were excluded by cold-induced magnesium narcosis are moving in. These are some of the findings of the 20-year Long Term Ecological Research project based at Palmer Station and are unfortunate but unassailable facts that wear no political stripes.

Human relationships at Palmer Station are like nowhere I've ever been. House Mouse happens on Saturday afternoon, the only day off. Everyone (no exceptions!) draws a cleaning duty out of a hat, and in 1 hour the entire station is put in order. There are only two locked doors in the entire station, one is the store and I can't remember the other one. I have never heard

so many pleases and thank yous and you're welcomes, seen so many people holding doors open for others, or been greeted so often, and usually by name. People are inordinately friendly and polite because Palmer is a small community working in a very confined place, making positive relationships absolutely paramount. For all its natural beauty, this human element is what I will miss most about Palmer Station. I am struck by how differently people can behave when they choose to. This gives me some hope for humanity.

Soon I will click my heels three times, utter the appropriate words, and get on the ship going north. I will leave knowing the beauty of Antarctica will not soon leave me. Yet it really is no place like home. I'm looking forward to spring: warmer rain, new leaves, birdsong, the sound of running rivers, digging in the garden, early planting, the smell of living earth fertilized by things that once were green. This is where I belong.

Out and About

"Out & about" is a periodical encouragement to Eugene Natural History Society members to get out and experience our magnificent Oregon. Photos and descriptions provided by David Stone.



Damselflies and Dragonflies

As the spring warms up, damselflies and dragonflies begin to emerge everywhere there are small ponds. This photo was taken at the pond in back of the Science Factory. (While you are there, look for the Great Blue Heron rookery overlooking the pond). When you spot a dragonfly, sit still and watch it patrol the pond looking to feast on mosquitoes and other small insects. They behave like flycatchers - hunting from and returning to the same perch.

Want to know what species you are seeing? Check out the wonderful new book *Dragonflies and Damselflies of the Willamette Valley: a Beginner's Guide* by our own Steve Gordon and Cary Kerst.

The MPA Wildflower Festival is on Sunday, 20 May, from 10 am to 5 pm (see the Events Calendar on p. 6 for more detail), and ENHS will have its booth there, as usual. If you are willing to booth-sit for a couple of hours, either contact a board member or, if you're at the April or May meeting, sign up.

Events of Interest in the Community

Lane County Audubon Society

Friday, 13 and 27 April, at sunset. Welcome Back Vaux's Swifts at Agate Hall. The Vaux's Swifts use the chimney to roost for the night as they gather during spring migration. This is a wonderful chance to observe and learn about the birds returning from Central and South America for the breeding season.

Saturday, 21 April. Third Saturday Bird Walk. Location and leader to be announced. Check the LCAS website at <http://www.laneaudubon.org/birdwalk.htm> to learn more about the leader, location, and start time. We will meet at the South Eugene High School parking lot (corner of 19th and Patterson) for carpooling. A \$3 donation is suggested. Please remember not to leave valuables in your car as a precaution.

Tuesday, 24 April, 7:30 pm. The Dragonflies and Damselflies of Oregon. By Cary Kerst and Steve Gordon, co-authors of a book of the same title. Eugene Garden Club, 1645 High Street, Eugene.

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, or look at <http://mountpisgaharboretum.org/> to find out about current Arboretum activities.

Sunday, 20 May, 10 am – 5 pm. Wildflower and Music Festival. For the 32nd year, staff at Mount Pisgah Arboretum invite the community to our spring festival for a day of wildflowers, music, food, crafts, and fun! You don't have to be a plant expert to have a wonderful time. The festival is loaded with fun things to do, for everyone in the family. As many as 400 wildflowers will be on display, from asters to violets. Flowers are collected and organized for attendees to get a close look. Top botanists of the region will be on hand to answer questions. There will be live music all day long, with seven different groups, each on stage for an hour. A wide variety of plants, baked goods, and arts and crafts will be on sale, with proceeds supporting the Arboretum's work in habitat restoration and environmental education. Nature Tour Guides will weave folks through the trails, providing more information about the Arboretum's ecology and history. Bring the entire family (except the dog) to enjoy the festival as well as explore nearby nature trails. Free Parking. Cost: Suggested donation: \$5 per person; kids under 12 free.

Nearby Nature

Sunday, 15 April, 3-5 pm. Teen Outdoor Leader Fieldshop: Nature Crafting Beyond the Basics. These events are great training for teens who plan to be summer Outdoor Leaders at our daycamps, but they are open to all teens! Join us for an afternoon of fun nature craft skills training. Learn to felt with wool, make your own paper, and create natural watercolors. Learn how to teach these skills to others as well. Registration is free, but enrollment limited to 12 kids. Pre-registration required: call 541-687-9699.

Sunday, 22 April, 1-4 pm. Earth Day Restoration Celebration. Join Nearby Nature in partnership with SOLV for invasive plant removal and litter patrol in Alton Baker Park. Tools and gloves will be provided. Wear work clothes and bring a refillable water bottle. Please pre-register.

Saturday, 28 April, 10 am-noon. Celebrate Slime! Learn all about snails, slugs, and other slimy creatures. Enjoy a special guest appearance by Eugene's Slug Queen! At Nearby Nature Learnscape in Alton Baker Park.

Saturday, 5 May, 1-4 pm. Teen Outdoor Leader Fieldshop: Micro Magic. Join us for a field science adventure featuring the microscopic inhabitants of Alton Baker Park. Learn how to trap micro-critters in a water drop, use microscopes, experiment with water quality testing tools and filtration systems, and more. At the yurt.

University of Oregon Museum of Natural and Cultural History, 1680 E. 15th Ave.

Free Admission Wednesdays, 11 am – 5 pm.

Fridays, 1 pm and 3 pm, Guided Tours.

Ongoing Exhibits:

We Are Still Here – Gordon Bettles and the Many Nations Longhouse

Out in Space Back in Time: Images from the Hubble Telescope

The Art of Nature by Becky Uhler

Native Plant Society of Oregon, Emerald Chapter

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

Monday, 16 April, 7:30 pm. Icons of the Pacific Northwest Natural Environment. Tim Giraudier's presentation will include photographs of flora, wildlife and landscapes from the Cascades to the Pacific Ocean. EWEB Training Room 500 E. 4th Avenue, Eugene. For more information call 541-345-5531.

WREN

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

WREN Wetland Wanders are casual walks through various West Eugene Wetlands sites, the second Tuesday of every month. Dress for the weather. WREN will provide binoculars. FREE! The next one is on **8 May**. Use the above contact information to get details.

ENHS is a co-sponsor of the 19 June visit to Eugene by **Terry Tempest Williams**. She will be here as a part of her book tour, publicizing her newest book *When Women Were Birds*. Place: 150 Columbia Hall, University of Oregon Campus. Time: 7:30 pm. Pass the word.

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

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:	Contributing	20.00
	Family	15.00
	Individual	10.00
	Life Membership	300.00
	Contribution	_____

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

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 _____

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.

ENHS bike path work party. Sunday, 6 May. Meet at 10 am on the North Bank Bike Path under the north end of Ferry Street Bridge, or in the parking lot in front of McMenamin's North Bank restaurant off Centennial Loop. Families welcome; nature study entertainment provided. Bring gloves and be clothed for the weather. Work usually lasts until about noon, after which many of us stay for lunch and conversation at McMenamin's. Contact for info: David Wagner 541-344-3327.

These photos, and the one of Tom Titus by the Crevasses sign, are three of many wonderful shots taken by member John Postelthwait. He and Tom were in Antarctica carrying out research. Thanks, John!

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.



ENHS Schedule of Speakers and Topics for 2011-2012 and for 2012-2013

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|----------------------|--------------------|--|
| 20 Apr. 2012 | – Tina Schweickert | – Landscape History of Oregon's Waldo Hills, and Beyond |
| 18 May 2012 | – Robert M. Pyle | – Butterflies |
| 21 Sept. 2012 | – Tom A. Titus | – The Wet, the Dry, and the Indifferent: Amphibian and Reptile Diversity at the Center of the Universe |
| 19 Oct. 2012 | – Craig Young | – The Deep Ocean |
| 16 Nov. 2012 | – Jim Reichman | – Pocket Gophers |
| 14 Dec. 2012 | – David Craig | – Avian predator ecology |
| 18 Jan. 2013 | – Marge Helzer | – Rimrock Draw Shelter Archaeology |
| 15 Feb. 2013 | – Ray Lowe | – Restoration of Bandon Marsh |
| 15 Mar. 2013 | – Gail Baker | – Australian Botany |
| 19 Apr. 2013 | – Josh Roering | – Eel River Pleistocene Lake |
| 17 May 2013 | – Jason Dunham | – Bull Trout |

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