

# Nature Trails

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P. Trail, working with a macaw specimen.

## **Fighting Crime with Feathers: The Casebook of a Forensic Ornithologist Pepper Trail, Senior Ornithologist, National Fish and Wildlife Forensics Laboratory, Ashland, Oregon**

**Friday, 19 March 2021, 7:30 p.m.**

The Eugene Natural History Society is inviting you to their March Zoom meeting. Here is how to join the audience for this presentation. The Zoom meeting will open at 7:00 but our meeting will begin at 7:30. This allows everyone time to get connected and join in informal conversation.

Time: 19 Mar. 2021 07:00 p.m. Pacific Time (US and Canada)

Join Zoom Meeting: <https://zoom.us/j/97499095971> We plan to use this Zoom link for the remainder of ENHS meetings. However, please double-check each time to make sure the link hasn't changed. Please invite interested friends and family members. From anywhere.



Pepper Trail is the senior ornithologist at the National Fish and Wildlife Forensics Laboratory (NFWFL) in Ashland, Oregon. This facility of the U.S. Fish and Wildlife Service is the world's leading wildlife crime laboratory. In the Winter 2016 issue of *Audubon* magazine is an article by Chris Sweeney, entitled "Behind the Scenes With the World's Top Feather Detective." Sweeney identifies Trail as the nation's only forensic ornithologist. He goes on to describe a few of the many cases on which Trail has worked. Trail is involved in over 100 cases a year. If some part of a bird is found by a Fish and Wildlife agent at a crime scene anywhere in the U.S., the chances are good that Trail's expertise will be called upon.

Sweeney spent time in Trail's lab in Ashland while gathering information for his article. Among the many items that piqued his interest was a wing feather from an Andean condor. Trail told Sweeney it had been seized from a polka dancer by customs agents. Trail explained, "There's actually a trade in condor feathers from Peru to Germany to decorate polka hats." Who would suspect that a recreational activity as seemingly innocent as polka dancing could cause harm to an iconic avian species?

Trail's early history sheds light on his career path. He was born in Virginia, then relocated at two years of age to the Finger Lakes region of New York when his father took a position as a photographer with the New York Agricultural Experiment Station, affiliated with Cornell University. The family lived on a 100-acre farm, which they leased out. It, along with the adjacent 100-acre Boy Scout camp, provided a huge natural playground for the young Trail. His father was a naturalist, a birder, interested in wildflowers and caterpillars. Trail and his siblings were tasked with feeding and caring for the caterpillars their father collected from various plants on the farm. It was not unusual for Trail to leave his house on an early summer morning and not come

back until dusk, spending the entire day in natural surroundings.

When time came for college his decision was easy: Cornell. It is one of the best public universities in the country, and because of his dad's affiliation his tuition was free. After getting his B.S. in biology, Trail went to the University of California at Davis for his master's degree. His M.S. thesis research was on the social behavior of acorn woodpeckers in the Chiricahua Mountains in Arizona. Then he came back to Cornell for his Ph.D. He did his research in Suriname on the mating system of the Guianan cock-of-the-rock.

After finishing his Ph.D. Trail took a post-doc position at the Smithsonian Institute for Tropical Research, in Panama. He continued his cock-of-the-rock research in Suriname. Following that post, he moved to San Francisco, where his wife was attending medical school. Trail became a post-doc at the California Academy of Sciences while his wife finished her residency. His work at the Cal Academy included research on the morphology of Darwin's finches. After his wife completed her medical training, the couple and their two young children opted for an adventure, with Trail taking a contract biologist position in American Samoa. After two and a half years on Tutuila, the big island, it was his wife's turn to make a location choice. She chose Ashland, Oregon, a mere 4,900 miles away. She knew the town and the area, and it was a good fit for her medical practice.

Trail became an adjunct professor at Southern Oregon University and kept his ornithological skills honed by doing contract work. One day he got a call from the director at the NFWFL. Their ornithologist had resigned. They knew about Trail from the Ashland grapevine. Would he take on the work temporarily until a replacement was found? He would. The temporary job became permanent. Trail's temporary job now exceeds twenty years, and after what has turned into a remarkable career he plans to retire later this year. The lab has hired an associate, who will be able to continue the unique contribution to forensics that Trail has developed.

In the years he has spent as a forensic ornithologist, Trail has worked on over 2000 cases, involving 80,000 identifications of feathers and other bird parts belonging to more than 800 different species. Trail responded to my request for a brief summary of his talk with this. "In this unique program, Pepper Trail will lift the curtain on the secret world of wildlife crime. As the ornithologist at the National Fish and Wildlife Forensic Lab in Ashland for over 20 years, he has seen it all, from carved hornbill skulls to harpy eagle headdresses to

oil-covered roadrunners to hummingbird love charms. Dr. Trail will describe how bird evidence in wildlife crime investigations is identified and discuss the impact of the ongoing trade in feathers and other bird items on avian populations.” Please join the

### **Love Letter to Malheur National Wildlife Refuge** by Cynthia Pappas

George and I don’t have many rituals in our lives. Our kids are grown and have created their own holiday rhythms. Our extended families don’t live close. Maybe that’s why this annual trip takes on so much significance. Every Memorial Day weekend we pack the car with an ice chest and birding gear—spotting scope, binoculars, bird identification books—and head east three hundred miles from our farm in Springfield to Malheur National Wildlife Refuge in Oregon’s high desert to witness spring migration.

The Malheur National Wildlife Refuge was originally set aside by President Theodore Roosevelt in 1908 to protect nesting egrets and other waterfowl from unregulated plume hunting (for ladies’ hats).



Malheur morning. Photo by Dean Walton

During spring migration, Malheur turns into every birder’s paradise. With a great diversity of habitat, the refuge attracts more than 320 species of birds who gorge on the banquet laid out by nature. The Blitzen Valley, the most accessible portion of the refuge, contains meadows, ponds, and extensive wetlands surrounded by sage uplands and basalt rimrock. In a wet year, the mudflats rimming Malheur and Harney lakes come alive with shorebirds. Black-necked stilts—with their long, thin supermodel legs—dip their slender bills into the mud. Delicate-winged black terns whirl overhead, catching insects. After turning south off Highway 205 toward the refuge, we see yellow-headed blackbirds perched along the barbed wire, calling out their guttural “gronk.” Long-billed curlews and white-faced ibis can be found in the marshy fields. The background soundtrack features a nasally “follow your leader” from the red-winged blackbirds.

Zoom meeting between 7:00 and 7:30 p.m. on Friday, 19 March to hear Pepper Trail’s presentation, **“Fighting Crime with Feathers: The Casebook of a Forensic Ornithologist.”** Invite anyone! From anywhere!

But I’m getting ahead of myself. Oregon is a geographically large state and this car trip takes seven hours from the Willamette Valley, sometimes in sunny, warm spring weather, often through icy rain and even snow. I don’t revisit many locations year after year because there are so many beautiful places and I have limited time on this planet. The exception—Malheur—calls me back again and again. This annual going-back-to-a-place allows for an intimacy and deep knowledge, a place-based knowing that cannot happen without time spent watching and listening.

After crossing the Cascade Mountains and descending into the dry sage lands of Eastern Oregon, my heart rate begins to slow. I start to observe what’s around me instead of thinking about the farm chores on my never-ending to-do list. With the windows rolled down, I listen more intently. Hearing the far-off “kar-oo” of sandhill cranes lures me in deeper. By the time we’ve been driving five hours, we’re ready to rest for the night. We always stay at a funky motel in Burns the first night.

The next morning, we start birding in earnest. We drive slowly through Burns Paiute Reservation land, looking for songbirds and sandhill cranes. The quiet is absolute. In drought years when the refuge lacks adequate water, we often find more birds here. Black-headed grosbeaks and the brilliant orange of Bullock’s orioles flash through the willows.

We drive along River Road and look for great horned owls in the massive cottonwood trees, the remnant of some old homestead. The good people of Harney County remain patient with visitors who walk through their neighborhoods peering through binoculars. We often spot yellow-rumped warblers feeding in the tops of lilac trees. Yellow warblers (identified by reddish streaks on the male’s chest) might be starting to nest in the willows along the river.

When we’ve exhausted our annual haunts outside of Burns, we head slowly toward Frenchglen, population nine. We have a room reserved at Drovers’ Inn, just behind the Frenchglen Hotel. Even though it’s only fifty-nine miles south of Burns, with so much to absorb along the way it takes us all day to get there.

When we reach refuge headquarters, still about thirty miles from Frenchglen, we check the list that volunteers have posted where birders record unusual

sightings. Perhaps someone saw a rose-breasted grosbeak or a black and white warbler. Refuge headquarters is a “hot spot” for migrating birds. The isolated concentration of water, protective trees and feeding grounds is a lifeline along the migratory flyway. Hungry, exhausted birds flying overhead spot the water and think literally, a refuge. I am safe, I can land.

We spend the afternoon wandering the grounds: people-watching and bird-watching at its best. Photographers with two-foot-long zoom lenses gather on the deck; Swarovski spotting scopes and Zeiss binoculars abound. I love viewing cedar waxwings, with their black eyeliner markings, feeding in the voluptuous pink blossoms of the hawthorn tree. American white pelicans funnel high overhead, white dots against the periwinkle sky.

Orange and yellow western tanagers perch in the trees like Christmas ornaments. A black-billed magpie sits on her nest, her feathers gleaming iridescent in blue, black, and white. Background calls of “chi-ca-go” let us know California quail are nearby. We enjoy a visual and aural overload.

By 5 p.m., we meet up with our friends on the porch of Drovers’ Inn. Our group has taken all the rooms there and filled up half the Frenchglen Hotel as well. The oft-asked question, “what did you see?” can be heard. Part of the ritual includes sharing stories of the day. In one day, the total bird count amounts to seventy-five species, with a weekend total of anywhere from 120 to 140. Cliff swallows nest in the eaves above our heads, swooping in and out of their mud nests to feed their young, oblivious to our chatter. Then we make our way across the lawn to the hotel where we enjoy dinner served family-style.

We almost fill the long tables in the dining room, but we can always squeeze in a camper or two who wants a hot meal in a dry, cozy space. After the high-carbohydrate dinner, we walk to the old homestead, accompanied by the constant whinnying of Wilson’s snipes.

The following morning our dawn foray might be to Page Springs Campground—on my Top Three list of most beautiful places to camp. If there was a dusting of snow on Steens Mountain during the night, the morning walk is a bracing affair. The Donner und Blitzen (Thunder and Lightning) River flows along the east side of the campground, at the base of the rimrock, creating excellent habitat for California towhees, vireos, elusive soras, and Virginia rails, often with newly hatched chicks that look just like cotton balls on stick legs. When someone finds an unusual bird species, the scene can resemble the paparazzi crowd on Oscars night.

Another favorite morning walk is up the hill above the Frenchglen Hotel. Mountain sheep gambol along the rimrock and we always search for the golden eagle’s nest about halfway up the escarpment to look for nesting activity. If there’s been a good amount of rain, the wildflowers provide an extravagant carpet. Sandhill cranes move with an elegant, languid wing stroke across our field of vision. We listen for chukars, rock wrens, and my favorite: the canyon wren, who sings a descending series of liquid notes—somehow both mournful and magical. These early hikes help whet our appetites for some plate-size pancakes.

After a hearty breakfast we often drive along the Central Patrol Road on the refuge, stopping to view bobolinks with their creamy apricot neckband, yellow-breasted chats, or pinkish-bellied Lewis’s woodpeckers. We’ll pack a picnic lunch and eat at Benson Pond. If we’re lucky, we’ll see pairs of elegant, impossibly long-necked trumpeter swans with their young. Or we might drive off the refuge to Fields instead. The two best things about Fields: the chocolate milkshakes at the cafe and the birds that frequent the oasis across the road from the cafe. In dry years, it may be the only water within one hundred miles, and birds know it! In an area about the size of a basketball court, a thick tangle of willows and downed cottonwoods serves as temporary respite for weary migrating warblers, flycatchers, and vireos. Great horned owls tend their chicks in the trees.

The expansiveness of Oregon’s high desert and the stillness of this sage country entrances and deeply affects me. I feel like I’m wearing time suspenders. The pace of our weekend forces me to be present in the moment. There is nothing to do but look and listen. I walk slowly enough to find the well-camouflaged killdeer eggs in their nest of rocks and hear the sharp “tsuk” of the marsh wren in the cattails. By keeping my eyes wide open to catch movement at the periphery, I witness a long-eared owl’s display flight. The male flaps its wings below its body, producing a clapping sound as it rockets and descends near the female. I relish the ritual of spring in Malheur. I’m thankful that President Roosevelt had the foresight to protect Malheur in perpetuity. May this refuge remain protected so our children’s grandchildren can continue to experience this special place years from now and grow to respect and love it as I do.

Pappas, her husband, and their dog live on a farm on the McKenzie River. Pappas is a retired Planned Parenthood CEO, birder, activist, gardener, and grandma. She is the author of a memoir, *Homespun*. *Gather* is her second collection. Her essays have appeared in *Best Essays Northwest*, *Oregon Quarterly*, *The Eugene Register-Guard*, *Threads*, *MaryJanesFarm*, *Willamette Living*, *GreenPrints*, *Farm & Ranch Living*, and *Groundwaters*.

## Cool Jelly by Tom A. Titus

Winter is releasing its gentle hold on the Coast Range. Emerald buds swell on bronze salmonberry canes. Alder leaf-rot gives way to an early surge of sprouting larkspur and nettles. Emily and I plunge downhill off a narrow trail, drawn toward the valley floor by standing water that glints through chalky alder trunks. The shallow pool is clear and still as a meditation, a watery remnant of a time when Shotpouch Creek rattled hard against the steep flank of the ridge on its hurried trip toward Mary's River. The creek has since moved its gurgling energy to the east side of the valley, abandoning the pond to be fed by spring water trickling from a sandstone crack somewhere up the ridge. Beavers long ago dammed the old channel with a matrix of peeled sticks now blackened by age. The pond is encircled by elderly red alder trees. Their decayed trunks are too large to stretch our arms around and are capped in moss sprouting licorice fern that resembles coarse green guard hairs. These ancient ones long ago lost their tops. The task of verticality has been taken up by limbs heavy with lichen, reaching ponderously toward the wan March sun.

My salamander intuition is correct. In the center of the pool, the reflection of alders is pierced by late morning light revealing four northwestern salamander egg masses resting in a foot of cold water. Each cluster is a gelatinous fist clenched around an alder twig and contains about 80 quarter-inch embryos bent like dark commas around creamy yolk sacs. One mass is cratered on the surface. The embryos have been chewed out by a rough-skinned newt who now languishes innocently on the mucky bottom.

The adults were here sometime last month. We would love to have seen them, long and thick and brown as Havana cigars, a pair of paratoid glands bulging like misplaced thumbnails from either side of their heads. A male would have clasped a female from above, stroking her with his hind limbs and chin, using tactile and chemical communication. They might have swum together for days, occasionally surfacing for air, the male dismounting, nudging, remounting. He would have been persistent, patiently waiting for a clear but unspoken signal that she would accept his spermatophore, a gelatinous structure capped with a fertile offering of sperm. The couple would have parted ways. In a few days the female, implored by a bulge of fertile eggs, would have wrapped her body around an alder twig and glued her precious cargo with a clear hydrophilic jelly that swelled with cold spring water.

Forward-thinking daylight will stretch into spring. The old alders will leaf out. Larkspur and nettle will extend themselves above the alder mulch, the silence broken by song sparrow and Pacific wren. Individual egg capsules will host their version of furious spring growth, becoming progressively greener with the symbiotic alga *Oophilia ambystomatis*. The specific epithet is named for its host *Ambystoma*, the salamander genus containing the northwestern salamander *Ambystoma gracile*. The names are human constructs, but the relationship of embryos to alga is the ancient coevolutionary business of symbiosis. Growing embryos will metabolize their allotment of yolk, producing urea and ammonia as waste products that are a nitrogen-containing superfood for the alga. The alga engages in photosynthesis, producing carbon chains for energy and oxygen as a byproduct. This oxygen enhances embryonic growth; although the dense jelly of the egg mass protects the interior embryos from newt predation, it also reduces their access to water-borne oxygen.

This morning, one tactile assignment remains. I find a stick to extend my reach, step to the edge of the pond, and pull an egg mass gently toward my free hand. Silt that dusted the glass-like globe swirls free, sullyng the crystalline water. Emily squats at the



Emily with jelly. Photo by T. Titus

edge of the pool, cupping the cool jelly, smiling. Her words echo my thoughts: *I could hold this all day!* We push this embryonic future back into the pond, trusting their protection to a single-celled alga, an icy flush of spring water, and the reflection of ancient alders.

## Virtual Meetings in the Post-Pandemic Era

The Board of the Eugene Natural History Society seeks feedback regarding the potential use of Zoom once COVID-19 restrictions are lifted and we are safely able to meet again on the University of Oregon campus.

1. Would you support the occasional use of Zoom for meetings?
2. Would you attend an in-person meeting in our usual meeting place on campus that featured a speaker broadcasted over Zoom?

A Zoom meeting would potentially allow us to bring in speakers whom we might not be able to book otherwise (e.g., from the east coast or even farther away). Please email your support or opposition to each question (a simple yes or no will suffice) to August Jackson at [augustjackson@ecolingual.com](mailto:augustjackson@ecolingual.com).

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## Events of Interest in the Community

**McKenzie River Trust** <https://mckenzieriver.org/events/#event-listings>

**Wednesdays, 17, 24, 31 March and 7 April, 9 to 11:30 a.m. Watershed Wednesdays at Green Island.** Each week we'll take on a different stewardship project.

**There are several other events** in March and early April. For details go to <https://mckenzieriver.org/events/#event-listings>

**Lane County Audubon Society** [lanecountyaudubon.org](http://lanecountyaudubon.org)

**Saturday, 20 March, 8 a.m. Third Saturday Bird Walk.** Folks (maximum: 10; minimum: 1) wishing to join a walk can email Bex at [rebecca.waterman@gmail.com](mailto:rebecca.waterman@gmail.com) for details. All participants must wear a mask for the entirety of the walk and maintain the recommended 6-foot distance from each other. No carpooling.

**Tuesday, 23 March, 7 p.m. Zoom Program Meeting: Exploring eBird—An Extravaganza of Resources.** Vjera Thompson will demonstrate eBird, explaining what it is and showing well-honed tips and tricks for how to get answers to your bird questions. If you're new to eBird or want to improve your contributions, she recommends the eBird Essentials self-paced training: [academy.allaboutbirds.org/product/ebird-essentials/](https://academy.allaboutbirds.org/product/ebird-essentials/). You might want to go through it ahead of her presentation. Doing so might inspire questions you'd like to ask her.

**Mt. Pisgah Arboretum**

For MPA activities go to <https://mountpisgaharboretum.com/festivals-events/>

**University of Oregon's Museum of Natural and Cultural History** <https://mnch.uoregon.edu/museum-home>

To slow the spread of COVID-19 the Museum remains closed to the public. To learn the latest, go to <https://mnch.uoregon.edu/covid-updates>

**Native Plant Society of Oregon, Emerald Chapter** <https://emerald.npsoregon.org/>

**Monday, 15 March, 7 to 9 p.m. On-line Program: "A Beginner's Adventures with iNaturalist." Michael McKeag.**

Preparation for participation in the Mt Pisgah Arboretum Wildflower Bioblitz <https://www.inaturalist.org/projects/lane-county-wildflower-show-bioblitz-2021> and farther afield for the Glide Wildflower Show bioblitz

<https://www.inaturalist.org/projects/glide-wildflower-show-bioblitz-2021>. This presentation will be an introduction to iNaturalist and an account of McKeag's early experiences using iNaturalist, illustrating its utility as a personal field guide, learning tool, mentor in your pocket, and springboard to exploration and intellectual adventures.

**Nearby Nature** <https://www.nearbynature.org/>

**Nearby Nature Summer Daycamps are open for registration. They are filling fast!** Go to

<https://www.nearbynature.org/events/summer-daycamps-begin-2/>

**Friends of Buford Park and Mt. Pisgah** <https://www.bufordpark.org/>

Because people and nature need each other, the Park is OPEN during the Coronavirus/COVID-19 pandemic. Please refer to [Lane County](http://Lane County) for instructions about the park and updates.

**WREN (Willamette Resources and Educational Network)**

This April and May, we will be offering after-school programs in the West Eugene Wetlands for early elementary school children (1st–3rd grade). For more details and to register, [Contact Laura Maloney](mailto:Contact Laura Maloney), WREN's Education Director.

ENHS welcomes new members! To join, fill out the form below. Membership payments allow us to give modest honoraria to our speakers and pay for the publication and mailing of *Nature Trails*. Our web address: <http://eugenenaturalhistorysociety.org/>

**MEMBERSHIP FORM**

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

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

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

Make checks payable to:  
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The Eugene Natural History Society website has moved to a new host at: <http://eugenenaturalhistorysociety.org/> This is a new site under old management. Changes and improvements to the site will be ongoing. If you have any questions or concerns, please let Tim Godsfil know at [tgodsil@gmail.com](mailto:tgodsil@gmail.com)



Golden eagles, adult and chick, on nest near Malheur Lake.  
Photo by DWalton.

## **ENHS. Officers and Board Members 2020–2021**

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## **2020–2021 Speakers and Topics**

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|----------------|---------------------|---|
| <b>19 Mar.</b> | <b>Pepper Trail</b> | <b>Fighting Crime with Feathers: The Casebook of a Forensic Ornithologist</b> |
| <b>16 Apr.</b> | <b>Daphne Stone</b> | <b>Lichens: How They Tell Us About Their Environment</b>                      |
| <b>21 May</b>  | <b>TBD</b>          |   |