

Nature Trails

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Gage station at HJ Andrews Experimental Forest. The Holiday Farm Fire almost reached it.

Fire and Philosophy in an Uncertain Future

**Michael Paul
Nelson**

**Ruth H. Spaniol Endowed Chair
of Renewable Resources,
Department of Forest Ecosystems
and Society
Oregon State University**

Friday, 18 February 2022, 7:30 p.m.

The Eugene Natural History Society invites you to their February Zoom meeting. The Zoom session will open at 7:00. This allows everyone time to get connected and join in friendly conversation. Our meeting will begin at 7:30. Time: 18 February 2022, 07:00 p.m. Pacific Time (US and Canada). Join Zoom Meeting:

<https://zoom.us/j/97499095971?pwd=eE9sdG9hSHMvOHhIUEJuU2lwT20rdz09>

We had hoped to return to 100 Willamette this year, but given the current state of the pandemic, the Eugene Natural History Society will continue to hold meetings via Zoom until it is safe to meet in person. We will use the same link for each meeting unless otherwise noted. The current link can always be found at eugenenaturalhistorysociety.org. Thank you for your continued support!
August Jackson, President, ENHS



One reason Michael Paul Nelson, our February speaker, decided to move from Michigan State University to Oregon State University in 2012 was the opportunity to become the

Lead Principal Investigator for the [HJ Andrews Experimental Forest Long-Term Ecological Research](#) program. He became the only non-scientist ever to lead one of NSF's 28 LTER sites. After ten years in this administrative position, which makes up 60 percent of his appointment, he is stepping down this coming March. He will be able to devote more time to two of his other loves, writing and teaching.

Nelson holds the Ruth H. Spaniol Endowed Chair of Renewable Resources in the Department of Forest Ecosystems and Society at OSU. He has been a senior fellow for OSU's [Spring Creek Project for Ideas, Nature, and the Written Word](#) since 2012. He wears many other hats: writer, environmental scholar, teacher, speaker, consultant, and professor of environmental ethics and philosophy. He maintains contact with the collection of environmental scientists who formed the Conservation Ethics Group, an award-winning environmental ethics consultancy group fusing ethics with social and ecological science, which he co-founded with his colleague John A. Vucetich from Michigan Technological University.

Those of us who were in the audience when Nelson spoke to us in 2018 will recall that he is philosopher in residence of the Isle Royale Wolf-Moose Project in Lake Superior, the longest continuous study of a predator-prey system in the world. The Isle Royale team includes geneticists, social scientists, filmmakers, and—as Nelson puts it—one bewildered philosopher. In that talk, one point that really made an impression was how a valid conclusion based on data gathered over a short period can be totally wrong when that same data set is incorporated into a study extending over a much longer time frame. This is the unique strength of the LTER concept and is precisely why the HJ Andrews Experimental Forest Program continues to be so vitally important.

Nelson hails from Janesville, Wisconsin. Initially a biology major at the University of Wisconsin, Stevens Point, Nelson found himself more interested in his philosophy classes, to the point that his B.A. degree is in philosophy/religious studies. He went to Michigan State University for his Master's degree, also in philosophy, and his Ph.D. degree in philosophy is from Lancaster University, England. From 1993 to 2004 Nelson held a joint professorship

in philosophy and natural resources at the University of Wisconsin, Stevens Point. From 2005 to 2007 he was a professor of philosophy at the University of Idaho. From 2007 to 2012 he held a triple-joint appointment in the Lyman Briggs College, the Department of Fisheries and Wildlife, and the Department of Philosophy at Michigan State University. In 2012 he took up his present post at OSU. His research and teaching interests are broad; they include hunting ethics, theories of environmental education, wildlife ecology, conservation biology, questions about science and advocacy, and the teachings of Aldo Leopold.

Reading Nelson's C.V. takes time. He has advised many students. He has editorial duties. He has authored or co-authored over 150 published articles. The section titled "Invited Presentations, Seminars, Conference Papers, and Posters" contains over 230 entries and is a couple of years out of date. The invitations have come from many parts of this country and from other parts of the world. During the pandemic he has maintained that pace, but he said it's been different not only because of the disconnect of Zoom but because of no longer being limited by distance. He gave a presentation at Oxford University. He taught a course in Peru. He interacted with other scholars from all over the world. Clearly, lots of people and organizations other than ENHS appreciate his message and his ability to impart it so other people understand it. He is author or co-editor of four books. Among them is *Moral Ground: Ethical Action for a Planet in Peril*, co-edited with Kathleen Dean Moore, in which these two committed 100 of the world's moral leaders to contribute an essay in response to this question: *Do we have a moral obligation to the future to leave a world as rich in possibilities as our own?* Every person they asked submitted one! Nelson and Moore's organization of the essays fit into what they call "thirteen good reasons to save the world."

In his talk, Nelson will use the Holiday Farm fire of 2020 to delve into larger wildfire questions. The fire burned 350 acres along the edge of the HJ Andrews Forest, but damage was minor. The Headquarters sustained damage, not from the fire itself but from efforts to make it fireproof. Large equipment operated in haste can wreak havoc. NSF covered the repair costs, which amounted to about \$100,000. Some buildings remain closed. Due to the fire and then the COVID pandemic, capacity for housing researchers was capped at 25 percent of the previous level, and this cap remains in place. The researchers at first said, okay, we'll be able to deal with a one-year gap. Then they reluctantly accepted the fact that it would have to be two years. But now

there is energetic work afoot to provide alternative housing so the ongoing research effort is not further impacted.

Here's Nelson's summary of what he'll be talking to us about:

Recent and expansive wildfires in the Pacific Northwest challenge our imaginations as much as they strain our natural resources management structures and resources. And we live in uncertain times, and we face an uncertain future. There's reason to believe that human decisions and actions from the past century or so have led to conditions that have created the current fire regime and that we need to rethink those decisions and actions. We

are charged with learning how to "live with fire" many have said. But how we live with fire (or wolves, or a changing climate, or species declines, and so on) depends greatly on what we think about fire and the world in which it exists in the first place. That is, our ideas about fire and the world matter—they matter a lot. So, where do our ideas about fire come from, and how might they change in an uncertain future?

We are in for an inspiring evening. Join us on Friday, 18 February at 7:30 p.m. for Michael Paul Nelson's presentation "Fire and Philosophy in an Uncertain Future." The Zoom link is on the cover page of this newsletter. John Carter

2021 Eugene Christmas Bird Count Summary by Maeve Sowles

The 2021 ECBC took place on 2 January 2022. The weather was mild with no rain, but some wind. Twenty-seven teams fanned out in the Count Circle, with 164 Field Observers plus 100 Home Counters, making for a grand total of 264 people participating! The ECBC tally was 137 species + 3 Count Week, and 60,587 individual birds.



In recognition of the 80th ECBC, each participant received a special patch for their efforts.

Vjera Thompson, ECBC Species Compiler, reported highlights seen by birders in the field: 1 Snowy Egret, 1 Wilson's

Warbler, 5 Orange-crowned Warblers, 3 Say's Phoebes, and 3 Soras. Also seen during the Count week were a Red Crossbill, a Green Heron, and a Tricolored Blackbird.

There were record high counts of several raptors: 93 Turkey Vultures (seen by 14 teams), 120 Bald Eagles, 43 Red-shouldered Hawks, 199 Red-tailed Hawks, and 2 Prairie Falcons. We saw record high numbers of Bufflehead (185) and Western Bluebird (302).

The weather cooperated for a few intrepid owling teams, and they found all the expected species of owls. One team enjoyed seeing a Barred Owl on a neighborhood roost mid-morning.

Thanks to all the birders that made this another successful count and to Count Coordinator Dick Lamster, Species Compiler Vjera Thompson, and Home Counter Coordinator Marcia Maffei!

Mark your calendar for the 81st ECBC on 1 January 2023!

The very first Eugene Christmas Bird Count (ECBC) was in 1912, but not until 1942 was it done again, when the Eugene Natural History Society (ENHS) was the first sponsor! ENHS continued as sponsor until 1980 when Lane County Audubon became the sponsor. Over the years, the Organizers and Team Leaders keep the ECBC functional through long-term relationships and commitment to the goal of searching for and finding every bird possible in each count area. One of the main reasons the ECBC is so popular and successful is because of the efforts of the Team Leaders. They assemble their teams well before Count Day, guide them through the day, and then report the results. Many of the teams have been birding together for years. One team leader has been doing the same count area for 40 years! New people are also welcomed to participate each year. Count Day can be very strenuous if it is cold, wet, windy, or even snowy or icy. Some birders begin early in the morning to look for owls and continue through the afternoon. Teams communicate with each other to make sure they are not double-counting, and they verify unusual sightings, even taking photos for documentation. This hard work and consistency validates the data that are compiled and submitted by the local CBC Coordinator. At that point, another expert birder, the CBC Regional Editor, scrutinizes the data once again for valid species identification before they are uploaded into the National Audubon database of combined CBC reports.

Ultimately the count data from over 2500 counts in North and South America are placed in a CBC database, which spans the life of the CBC beginning Christmas Day 1900. This resource is accessible by curious birders and researchers and provides a wealth of information to those interested in the long-term study of early winter bird populations across North America. New trends in data collection using eBird are making the reporting process potentially much

faster. Bird photos can be uploaded immediately and miles tracked with GPS and ESRI mapping rather than old-school methods, providing real-time content for the data collected.

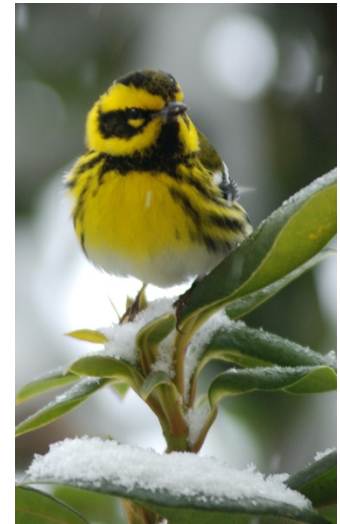
Regardless of these changes, the excitement and shared experiences that have built up by the end of Count Day still make the CBC effort a peak experience for birders who participate. New birders are given a chance to learn from and absorb this unique experience, and seasoned birders cherish a day in the field with friends on a treasure hunt for the next new bird around the corner! Some might even see a bird that is new to them or to the count!

The data collected by observers over the past century allow Audubon researchers, conservation biologists, wildlife agencies, and other interested individuals to study the long-term health and status of bird populations across North America. When combined with other surveys such as the Breeding Bird Survey, these counts provide a picture of how the continent's bird populations have changed in time and space over the past one hundred years.

The long-term perspective is vital for conservationists, helping provide data for strategies to protect birds and their habitat and helping to identify environmental issues with implications for humans. Conservationists have learned how climate

change may be affecting the ranges of 588 North American bird species. Of those 588 species studied by the Audubon Society, more than half are likely to be in trouble. The data models indicate that 314 species will lose more than 50 percent of their current climatic range by 2080. Using these

data to help our wild bird populations survive the uncertainties of climate disruption is now one of the most critical messages we can share from the CBC database. Bird numbers from years of CBCs are telling us we need to change public policy and individual awareness with regard to habitat loss and deforestation before our birds and other wildlife numbers decline to a point of no return. Humans need to wake up to the fact that they share the earth with other wonderful living beings that enrich our lives.



Townsend's Warbler. Photo by Rachael Friese

The Natural History of Running

By John Carter

In a 2004 *Nature* review article, Dennis Bramble and Daniel Lieberman wrote, "Judged by several criteria, humans perform remarkably well at endurance running, thanks to a diverse array of features, many of which leave traces in the skeleton. The fossil evidence of these features suggests that endurance running is a derived capability of the genus *Homo*, originating about 2 million years ago, and may have been instrumental in the evolution of the human body form." Each of the features they mention could be the subject of a separate essay, but here I'm going to dive into just one ignoble trait: sweat.

The sweat that comes out of *apocrine* glands in our armpits, the palms of our hands, the soles of our feet, and even our groins is usually a response to stress or excitement of some sort. It is odorless, but microbes in those parts of our bodies eat some of the compounds in it and convert them to the smelly stuff that carries all sorts of important non-verbal messages. This sweat deserves its own essay, but here I'm focused on the simpler sweat from our *eccrine* glands.

We have millions of eccrine sweat glands. All mammals have these glands, but almost all mammals have them in far fewer numbers than we do, and only in specific locations. We have them all over. They produce that solution that covers our bodies when we work hard. It's almost all water. When liquid water evaporates it soaks up lots of heat—540 calories per gram, more than almost any other natural liquid. This evaporative cooling is well known to all. Who has not delighted in the cooling sensation of a breeze caressing their damp forehead?

This sweat is our magic bullet. Without the sweat from our eccrine glands, running the way humans do would be impossible. Muscles in action generate heat that has to be shed. Animals either stop their activity until they cool off, or they do their own cooling. Sarah Everts, in *The Joy of Sweat: The Strange Science of Perspiration*, describes many weird heat-dumping solutions that have evolved in animal species. Storks and vultures poop on their legs and then increase blood circulation in their legs so the blood is cooled by the evaporation of the water in their poop (count your blessings for your eccrine glands). Chimpanzees, our closest relatives, with whom we share over 99 percent of our genome, also have lots of eccrine glands, but they have much more body hair than we do. Their sweat wicks into their

hair, away from their skin, so when it evaporates much of the cooling effect is lost. Their solution is panting and more frequent rests.

Back to us. When our core temperature rises to a certain level, those eccrine glands kick into action. The sweat they pour out evaporates on our skin, cooling the blood circulating close to the surface of our skin. Our core temperature stabilizes below the danger point, and we can continue with our exertions. If we weren't such good sweaters, we would have to stop or eventually die of heatstroke.

There's more. We can acclimate to heat. If we are active in hot weather for several days in a row we start to sweat at a lower core temperature, and our sweat is both more copious and more dilute. I was one of a crew helping a mutual friend move on a muggy summer day. I had been training for a marathon in a hot, humid Minnesota summer. Nobody else had been working in the heat. After a half-hour of lugging furniture out to the truck I was bathed in sweat. I looked around; not another wet body. I might have looked worse, but I'm sure I was cooler than the rest of them.

Why did we need to become such good runners? There are several hypotheses. Our ancestors may have scavenged kills and had to outrun jackals and hyenas. At some point, we learned that if we just kept after them, animals that in the short run were faster than we would have to stop—they would get too hot. Then they became dinner. San bushmen in southern Africa still hunt this way.

Pheidippides, whose run from Marathon to Athens to deliver news of the victory in the battle of Marathon inspired modern long-distance races, was not a one-off. Running has always been a central activity of indigenous peoples. Peter Nabokov, in *Indian Running: Native American History and Tradition*, tells many stories of running in games, running to deliver messages, running in warfare, even running hundreds of miles to provide fresh fish to royalty. Messengers in some tribes were treated

differently from their companions. They got special food to keep them in shape for long runs. Carrying a message a hundred miles and returning the next day was not unusual. The Rarámuri (Tarahumara) of Mexico still have running races that last for days. A Rarámuri man in his fifties won the Leadville 100, one of the toughest ultramarathons in the U.S., wearing homemade sandals with soles from old tires. And he wasn't the best runner in his extended family. The dominance in distance races of men and women from African countries reminds us that running in the land where humans evolved is still most definitely alive and well.

So why do I often have to force myself out the door? I do not want to start a run, and at least the first mile is uncomfortable. Daniel Lieberman, a professor of human evolution and biology at Harvard University and the author of *Exercised: Why Something We Never Evolved To Do Is Healthy and Rewarding*, addresses this conundrum. The tendency to be lazy is natural. We used to need all our energy just to survive. Procuring food and shelter was hard. Many of our ancestors didn't reach a ripe old age. Even now many humans can't get the food they need. To them, going out for a run just to stay in shape would be ludicrous. But others have the reverse problem: we have too much stored energy because we no longer have to do hard physical labor to survive. Now, we invent ways to burn off energy. We exercise. Not merely to burn up excess energy but to keep the engine running. It's how we were made.

Running a few miles is one of the easiest alternatives, because after all we've been doing it for millions of years. But to get started we still have to quiet that primitive inner voice that says, "you should be saving your energy for when you really need it." My inner voice does shut up after I get into a run. My breathing gradually gets easier. My stride steadies. I begin to sweat. Perhaps the sweating signals to the fussing inner voice that the engine is now warmed up. There is no longer reason for concern.

Herb Wisner will be 100(!) on March 24, 2022.

Because of COVID we're not throwing a party, but the family will gather to honor Herb's 100th birthday. You can help him celebrate by sharing your recollections and salutations. Please mail cards/letters to Herb Wisner, 2965 Olive Street, Eugene, Oregon 97405 or email his daughter, Linda, at lindawisner182@gmail.com by March 20. The family will present them all to him. If you'd like to call to wish him well, Herb's number is (541) 344-3634. He is currently living at Fox Hollow Residential Care Community in Eugene.

Events of Interest in the Community

McKenzie River Trust <https://mckenzieriver.org/events/#event-listings> or 541-345-2799

Wednesdays, 16 and 23 February and 2 March, 9 to 11:30 a.m. Watershed Wednesdays. Join the fun at Green Island and help protect and care for this special area. Projects vary throughout the season but are always suitable for youth ages 13 and older. Youth under 16 should be accompanied by an adult. For a map go to <https://mckenzieriver.org/event/watershed-wednesdays-at-green-island-2/2021-10-13/>

Lane County Audubon Society www.laneaudubon.org or 541-485-BIRD

Tuesday, 22 February, 7 p.m. e-Bird Tools: Terrific Technologies. Led by Vjera Thompson. Thompson will introduce the audience to additional eBird tools not covered in the presentation she gave last year. Check the LCAS website and/or Facebook page for the Zoom link.

Mt. Pisgah Arboretum <https://mountpisgaharboretum.com/festivals-events> or 541-747-3817

Saturday, 12 February, 10 a.m. to noon. Lichen Walk. Join lichenologist Daphne Stone on this popular walk through the Arboretum exploring lichens, their habitats, and ecology. Learn a few names and enjoy the moist winter air that makes the Pacific Northwest such a great place for lichens to grow. Rain or shine. Meet at the Arboretum Education Building. Don't forget your parking pass. \$5, members free. **Limited to 15 attendees. Pre-registration required.** [Click here](#) to register.

Monday, 21 February, 10 a.m. to noon. Evergreen Wonders Family Walk. While deciduous trees sleep, evergreens keep the forest green. Learn more about these marvelous trees and plants, capable of holding onto their needles and leaves even in the coldest months. At the end of the walk we'll create a cone critter friend to take home. Preregistration required. Max group size 15. Free for members and kids under 4. Non-members, \$5. Don't forget your parking pass! Sign up here:

<https://www.signupgenius.com/go/60B044EACAF2AA6F49-winter1>

Tuesday, 1 March, 3:15 to 5:30 p.m. Arboretum Exploration Session 1. Explore Mt. Pisgah Tuesday afternoons. Learn about the many surprising and amazing animals and plants living right here with hikes, games, stories, and journaling activities. Two 7-week sessions: Session 1 runs 1 March–19 April (no program Spring Break week); Session 2 runs 26 April–7 June. Rolling drop-off between 3:15 and 3:30. \$105 per session. Arboretum Members get a discount: \$85 per session. For youth 5–11, 15 students max. **Masks required for Session 1** because of the recent COVID surge. During Session 2 we plan to follow Oregon state health requirements, which currently don't require masks outdoors. Register here:

<https://mountpisgaharboretum.org/registration-form/>

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

Saturday, 5 March through Sunday, 13 March, 10 a.m. to 5 p.m. PhotoARK. Photographs by Joel Sartore. Come face to face with some of the world's most charismatic animals. Be inspired to care about and protect these incredible vanishing species. Go to <https://mnch.uoregon.edu/programs> or call 541-346-3024 to learn about the Museum's many programs.

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

Monday, 21 February, 7 to 9 p.m. Botanical Offerings in Our Eugene City Parks. Learn about the native botanical treasures and plant communities found in Eugene's city parks with Diane Steeck, Ecologist for the City of Eugene. This program will feature plants of the large, the small, and the less often visited parks and protected areas where you can experience botanical joy throughout the year. A Zoom link will be posted on the website closer to the date of the program.

Nearby Nature <https://www.nearbynature.org/> or 541-687-9699

Saturday, 19 February, 1 to 3 p.m. Citizen Science Saturday: Oh My, Look Up High! Join us for a Citizen Science adventure! This month we will learn about ospreys and herons as we document park water bird activity. Designed for adult participants. If you have a smartphone or a camera, bring one to take pictures. Smartphone users please load the iNaturalist app (inaturalist.org/) onto your phone if possible. Members free, non-members \$7. [Pre-register online](#). Space limited due to COVID-19 precautions. Meet outside Nearby Nature's Yurt in Alton Baker Park.

Monday, 21 February, 8:30 a.m. to 4:30 p.m. Talons and Tweets. No School Day. Discover who's tweeting in Alton Baker Park. Practice beak techniques, check out our talon collection, experiment with feathers and flight, and make a cool bird mask. Go on a bird watching walk in the park. \$60 members/\$70 non-members. Scholarships available. Ages 6–10, max 12 kids. Outdoors in the Learnscape and Alton Baker Park. [Register online](#).

Winter 2022 No School Day Adventures. For info call 541 687-9699 or go to <https://www.nearbynature.org/events/>

Friends of Buford Park and Mt. Pisgah <https://www.bufordpark.org/> or 541-344-8450

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

WREN (Willamette Resources and Educational Network)

Tuesday, 14 March, 9 to 11 a.m. Wetland Wander. Call (541) 338-7047, email info@wewetlands.org or go to <https://wewetlands.org/> for location and walk leader.

NABA (North American Butterfly Association), Eugene-Springfield Chapter. Nothing this month.

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:
Eugene Natural History Society
P.O. Box 5494, Eugene, OR 97405



Bucket Drop in Watershed 2



Fire in Watershed 2

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2021-2022 Speakers and Topics

18 Feb. Michael Nelson

Fire and Philosophy in an Uncertain Future

18 Mar. Edward Davis

Archaeology

15 Apr. Lauren Ponisio

Bees and Wildfire

20 May Lauren Hallett

Siskiyou Plant Communities (cosponsored with the Emerald Chapter of the Native Plant Society of Oregon)