

The North American Truffler

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Congratulations, Oregon mycologists - the **North America Mushroom Association** (NAMA) has selected Oregon as the site of its 2018 Foray! The event is scheduled for the weekend of October 12-14, 2018 and will be hosted at the Macleay Conference & Retreat Center, a mere 5 miles SE of Salem, just off of Hwy 22. More information to come in the next newsletter.

UPCOMING MEETINGS

All general meetings are held at 7:30pm in room 2087 of Cordley Hall on the Corvallis OSU campus. Cordley is reached via Orchard Avenue east of 30th St; [click here for a street map](#). Room 2087 is on the second floor on the south side of the building; [click here for a building map](#). Parking in any of the A1 lots is free after 5pm.



January 9, 2018 speaker: Erica Cline

Toxic metals in wild harvested mushrooms: A reason to worry?

Have you ever wondered whether some types of mushrooms are safer than others with respect to metal contaminants, or if some foraging areas are safer than others? Come hear Dr. Erica Cline, associate professor at the University of Washington, Tacoma campus, as she discusses her work with undergraduate research students studying metals in mushrooms, the role of mycorrhizal fungi in revegetation of the Elwha dam restoration site, and the recolonization of pumice plains at Mt St Helens decades after the eruption, among other topics. Their research involves testing metal levels in a variety of commonly harvested wild mushroom species collected with help from local mushroom foragers along the U.S. west coast. Their hope is to learn more about areas with high metal accumulation in mushrooms and determine which mushroom species contain levels of metals that might pose a risk to human health based on chronic exposure.

February 5, 2018: Brooke Fochuk and Kelly Slocum

They hold trainings, record podcasts, provide E-courses, organize mushroom festivals, give public demonstrations and...scoop up dog poop?! For some, that's a small price to pay for some fantastic truffling!

Join NATS on Tuesday, February 6th for a dual presentation by Kelly Slocum, co-founder of NW Truffle Training Dogs, and fellow truffle dog trainer Brooke Fochuk of the Vancouver Mycological Society.



Brooke Fochuk with wonder dog Dexter

Fochuk, long fascinated by wild mushrooms and berries, is a pioneer in the Canadian Lower Mainland's truffle community becoming the first local to train a truffle dog nearly a decade ago.

Slocum's truffle-dog-training school is located in Oregon City. The company trains dogs and owners how to locate and dig up truffles. NW Truffle Training Dogs has been in the business of training truffle dogs longer than any other company in the Northwest. The company's training curriculum emphasizes the bond between dog and owner, the cultivation of relationships with landowners, and the identification of native culinary truffles. The curriculum is widely utilized in venues such as the Oregon Truffle Festival, the Napa Truffle Festival, Portland Pet and Companion Fair, the Pet Expo, NY Times and a number of television and print media outlets.

March 6, 2018 Speaker: Dave Pilz

Mexican Mycophilia and Mycophagy: A travelogue from the 9th International Workshop on Edible Mycorrhizal Mushrooms.



Join us as consultant and author Dave Pilz leads us on a journey to the high-elevation cloud forests of Central America where mushrooms played important roles in the cultural traditions and daily lives of ancient civilizations. Host to a wide diversity of mushrooms, the Trans Mexican Volcanic belt and its surrounding habitats are populated by remnants of long-ago vanquished native communities who, despite a near-total destruction of their records of mushroom use at the hands of the conquering Spaniards, retain rich traditions of mushroom harvesting and culinary use to this day. Some communities have indigenous names for hundreds of edible mushrooms which are harvested and eaten with relish.

Dave Pilz is a consultant/writer through the auspices of his business, PilzWald – Forestry Applications of Mycology. He has conducted research on productivity and harvest of edible forest fungi with the USDA-Forest service and worked as a Forest Mycologist with Oregon State University, publishing research on the compatible production of commercially-valuable forest fungi in forests managed for timber and other amenities.

NATS annual holiday potluck



Chris Fischer's treasured truffle

NATS members celebrated the near-end of another year of truffle camaraderie at the 2017 December Potluck. With bellies full and warm from a sampling of savory, homemade mushroom dishes, dinner-goers divided their evening between conversing with old friends and keeping an eye on their bids in the hopes of winning one of the charming table centerpieces auctioned to raise funds for the Pavelek scholarship. This year, \$1,000 was raised for the scholarship. A further \$529 was made from the evening's raffle and submission of membership fees.



Nancy Molina's successful truffle search

The highlight of the evening was a presentation by NATS member Randy Molina, in which he related adventures he and his wife, Nancy, experienced on their weeklong truffle EcoTour in Spain's Castillo de Leon region in 2016. The tour, organized by Corvallis alumna Chris Fischer (www.sitkaservicesllc.com), began in Madrid, leading participants through the beautiful countryside and wild black truffle habitat surrounding Soria, home to Spain's oldest commercial black truffle (*Tuber melanosporum*) and the heart of Duoro Spanish wine production.



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NATS annual holiday potluck continued...

Molina struck a perfect anecdotal blend of that most holy trinity of international leisure travel: regional history, gastronomy, and enology. He described the unique flavor of each locale by way of noting what the inhabitants eat, what they drink, how they eat, and how the families evolved over time with landscapes they've tended for generations.



Randy's descriptions were enhanced by his use of visual accompaniments, with pictures ranging from dinner menus to ancient ruins, 'medieval' hand tools to soil-sniffing action shots, and the truffles that were found. But it was Molina's wisdom in speaking AFTER dinner that was his crowning achievement - with pictures of cuisine so exquisite even the most seasoned gourmand would blush!



Quick guide to identification of common western Oregon / Douglas-fir truffles

Matt Trappe



This quick “cheatsheet” covers only those truffles commonly found in low-elevation Douglas-fir forests. It is not comprehensive and does not address pine, oak, or alpine habitats. Despite these limitations, hopefully it will be helpful for quick field identification at least to genus.

- ❖ Interior solid and firm (but not green), marbled, brittle, black powdery, hollow, or with convoluted folds: see Ascomycetes section
- ❖ Interior spongy, rubbery, green, brown, orange, or gelatinous black: see Basidiomycetes section

Ascomycetes

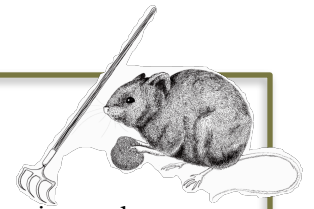
- Exterior pale to reddish or brownish; interior solid, marbled pale to beige, firm: ***Tuber***
 - Fruiting in the fall/winter, peridium with reddish stains: ***Tuber oregonense***
 - Fruiting in the late spring, peridium translucent: ***Tuber gibbosum***
 - Peridium brownish, irregularly shaped: ***Tuber californicum/ sphaerosporum***
- Exterior pale to pinkish, with navel; interior partially hollow, brittle & crumbly, often found with Tubers: ***Barssia oregonensis***
- Exterior black, rough, larger (to 10 cm); interior solid, mottled black & white: ***Leucangium carthusianum***
- Exterior black, folded, smaller (to 2 cm), interior hollow, flesh white in cross-section: ***Genea harknessii***
- Exterior reddish brown, rough, larger (to 10 cm); interior solid, mottled black & white: ***Kalapuya brunnea***
- Exterior red, smaller (to 2 cm); interior hollow: ***Gilkeya compacta***
- Exterior pale beige, larger (to 6 cm); interior densely folded, brainlike: ***Geopora cooperi***
- Exterior pale beige, smaller (to 2 cm) and fragile; interior hollow or loosely folded: ***Genabea cerebriformis***
- Exterior tan, spherical, peridium thick and finely warty; interior black powdery when mature, cobwebby when younger: ***Elaphomyces***
 - Peridium marbled in cross-section: ***Elaphomyces muricatus***
 - Peridium not marbled in cross-section: ***Elaphomyces granulatus***
 - If exterior smooth and columella evident could be ***Schenella*** (formerly ***Radiigera***)
 - If with basal tuft of rhizomorphs, ***Scleroderma*** (puffball)

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Basidiomycetes

- Exterior dingy white, sometimes bruising pink, peridium thin; interior spongy, olive green to tan to brown, not breaking easily into pieces; mild odor, without columella: ***Rhizopogon***
 - Surface bruising pink: ***R. hawkeriae*** (spores 7-8x2-3µm, interior white when young)
R. parksii (spores 5-6x2-3µm, interior white when young)
R. vinicolor (spores 6-8x3-4µm, interior yellow when young)
 - Surface not bruising pink, in age odor of rotting onions: ***R. villosulus*** (spores 6-8x2-3µm)
- Exterior dingy white, interior spongy yellowish to dark brown, breaking easily into pieces, unpleasant odor, without columella: ***Hymenogaster subalpinus***
- Exterior dingy white, bruising brown; interior spongy white, not breaking easily into pieces, mild odor, without columella, more common in the spring: ***Gymnomyces brunnescens***
- Exterior white, separating easily, bitter; interior firm rubbery green with cartilaginous veins: ***Hysterangium* spp.**
- Exterior white, not bruising brown; interior bright white, often exuding latex: ***Leucophleps spinispora***
- Exterior dingy white; interior spongy pale orange, sometimes exuding latex when cut, not breaking easily into pieces, mild odor, without columella: ***Zelleromyces scissilis***
- Exterior pale orange-tan; interior spongy pale orange, sometimes exuding latex when fresh-cut, mild odor, with columella often forming vestigial stem: ***Arcangeliella camphorata***
- Exterior yellow; interior spongy pale orange, latex lacking, mild odor, with prominent columella forming vestigial stem: ***Macowanites luteolus***
- Exterior yellow; interior firm spongy gray-green, not breaking easily into pieces, mild odor, with columella; often at or near soil surface, trailsides: ***Truncocolumella citrina***
- Exterior yellow; interior white with ~1mm chambers exuding white latex: ***Leucogaster citrina***
- Exterior yellow, larger (to 6 cm); interior spongy gray-green, not breaking easily into pieces, mild odor, without columella, with coastal pines: ***Rhizopogon occidentalis***
- Exterior brown, interior tarlike black gelatinous, pungent odor: ***Melanogaster tuberiformis***
- Exterior beige to brown; interior brown, spongy-gelatinous with marbling, found only in presence of alder: ***Alpova diplophleous***
- Exterior tan, peridium thick, with basal tuft of rhizomorphs; interior yellowish-grey when young becoming dark powdery mass at maturity: ***Scleroderma***

Growing truffles in Oregon



Dr. Patrick Long, semi-retired veterinarian and surely the Willamette Valley's very own truffle-whisperer, was the guest speaker at the October 2017 NATS meeting. He presented attendees with an update on his trials, tribulations, and lessons learned in farming truffles. This marked his second presentation for NATS, and Long seemed as happy to be back with us as we were to have him again.

Dr. Long, the first person reported to grow, harvest, and sell black Perigord truffles (*Tuber melanosporum*) in Oregon, is emerging as a leader in our region's nascent culinary truffle industry. He will tell you (with characteristic good nature) that after farming truffles for 17 years, he has not discovered THE one perfect way to grow them; in fact, there may not be one recipe for successfully growing truffles.

But that certainly doesn't stop him from striving to find ever more effective methods of truffle cultivation.

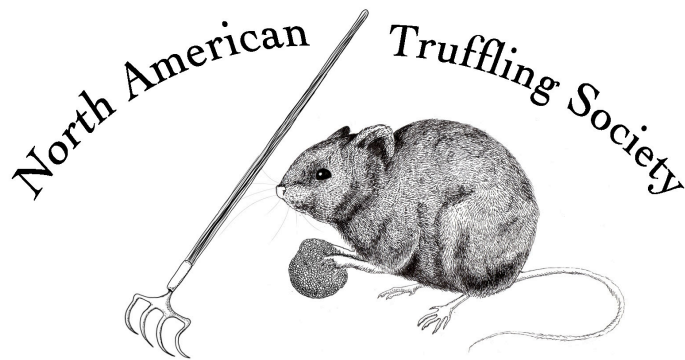
Dr. Long first stumbled into the world of culinary truffles in 1999, after he chanced to read an inflight magazine article in which they were mentioned. Though he'd never *actually* tasted a truffle, he *had* recently purchased a 60-acre property. Raised in a farming community in Kansas, Long has an enduring soft spot for rural endeavors. This particular endeavor just happens to be situated at a latitude comparable to that of Europe's truffle-producing regions.

Dr. Long planted his truffle orchard in 1999. His first harvest, in February of 2013, yielded a single truffle, as did his 2014 harvest. A third harvest totaled 7 truffles, a figure Long says went a long way to "buck him up." But it was with his fifth harvest – upwards of 100 truffles – that Long realized he must be doing something very right.

Growing conditions in the Northwest United States are comparable to those of the black truffle's native France as well as Spain, two regions long considered truffle meccas. Dr. Long may check the daily weather in France but, as with most things in life, details matter, particularly so when establishing a non-native crop whose inherent value hinges on its short-lived aromatics. Long has had to consider a number of factors, including land use history, soil composition, appropriate irrigation, soil acidity, to till or not to till, etc. And don't forget pathogens, amorous critters, and (perhaps eventually) poachers.

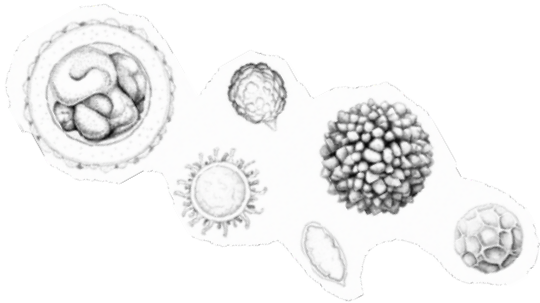
So what has Dr. Long changed in the two years since we've seen him? To start, he's nearly doubled the radius of his irrigation system, using Nelson sprinklers with a 12 to 15 foot radius. He made a second addition of lime, increasing from the four tons used in 2003 to six tons of liquid lime this year. He no longer intends to rototill his orchard but instead is hoping to use a more gentle technique with a 'spring tooth' tiller that gently rocks as opposed to ripping the soil.

NATS meeting goers will have to wait until the next time Long speaks to our club to learn how these changes impact his orchard – and whether or not Dr. Long's wife, Sue, decides **that** the cost of a spring tooth tiller is in their future.



WANTED

Creative suggestions for newsletter topics, comments about articles, your opinions about any truffle and/or fungi related topic. Send contributions to: newsletter editor Sarah Shay at NATrufflingsociety@gmail.com



Information contained in *The Truffler* is to be used at your own risk. NATS Inc., its officers, editors, and members are not responsible for the use or misuse of information presented herein. If you are unsure of mushroom identification or safety, **please** consult an expert! In addition, attending and participating in a NATS event is entirely at your own risk. No person associated with NATS is either directly or indirectly responsible for anything that occurs during, or in transit to/from, a NATS event. Be responsible.

UNIDENTIFIED TRUFFLE?

What to do?

Visit www.natruffling.org for a printable field data card (hand-written submissions on awesome stationary certainly welcome). Please provide a description of significant characteristics of the habitat immediately surrounding the collection site, including the dominant trees and other vegetation species and slope/exposure. Also include site coordinates (GPS data, if available) and, when possible, color digital images showing a surface view and an interior section, cut top-to-bottom, through the center of the truffle.

Prior to submission, gently remove loose soil from the specimen. **DO NOT** scrub briskly or use a stiff brush; an intact outer skin is important for identification. Dry thoroughly using a food dehydrator **OR** by refrigerating samples in a loosely closed paper bag for a couple days. For faster drying, cut truffles in half to reduce moisture trapped by the outer skin.

Mail your dried specimen to:

Dr. Jim Trufflin' Trappe
USFS Forestry Sciences Lab
3200 Jefferson Way
Corvallis, OR 97331

If you want to know what your truffle turned out to be, please include your email address or a self-addressed stamped postcard!

The North American Truffling Society, Inc.

The North American Truffling Society is a non-profit organization based in Corvallis, Oregon that brings together amateurs and professionals who are interested in fungi that fruit below ground. The mission of NATS is to enhance the scientific knowledge of North American truffles and truffle-like fungi, and promote educational activities related to truffles and truffle-like fungi.

NATS is the only organization of its kind in the world devoted to gathering truffles and enhancing our knowledge about them. Primary activities include educational meetings and truffle-collection forays. NATS members collect truffles worldwide, thereby contributing to our understanding of their habitat and range, identification and classification, and edibility. NATS specialists also provide truffle identification services.

NATS offers:

- Forays (field trips) to collect truffles.
- Monthly educational meetings (autumn through spring) on varied mycological topics.
- A periodic newsletter, "The North American Truffler: Journal of the North American Truffling Society", describing recent truffle finds, program meetings and other topics.
- An annual potluck dinner.
- The excitement of participating in valuable scientific research.
- New and interesting friends.

NATS welcomes new members. As a nonprofit, membership dues are tax exempt and deductible. Dues may be paid by cash (in person) or by check (US Mail). If you pay by check, please retain your canceled check as your receipt for tax purposes. You can also pay online with a credit/debit card via Paypal at www.NATruffling.org/renew.htm.

For further information on truffles and membership, contact NATS and START TRUFFLING!
Please return completed form (with check made out to NATS) to:

THE NORTH AMERICAN TRUFFLING SOCIETY, INC.
P.O. BOX 296
CORVALLIS, OREGON 97330
www.natruffling.org



Name(s): _____ Phone: _____

Address: _____

City: _____ State: _____ Zip: _____ Country: _____
(Province) (Postal code)

Email address(es): _____

Annual membership fees: \$15 first family member, \$10 each additional family member in the same household. Businesses: \$15. Individuals/Businesses from other countries: \$20, **payable in US funds.**

Annual contribution categories: Donor: \$15-\$49; Contributor: \$50-\$499; Sustaining \$500+