

# The North American Truffler

## *Journal of the North American Truffling Society*

Volume 36, Issue 2



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### \*New Feature\*

See page 3 of this issue for our new feature meant to highlight the illustrious past of NATS, now entering its 4th (!! ) decade. Read an article published in our newsletter 30 years ago.

### 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.

Spring 2018

### April 10, 2018 Speaker: Dave Pilz Mexican Mycophilia and Mycophagy: A travelogue

If this seems familiar, this announcement was in the last issue of The Truffler - Dave kindly traded times so Todd Elliott could speak last month. Thanks Dave!



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.

**May 8, 2018 Speakers: Carolina Páez and Dan Luoma**  
**Report on the “Truffle Fungi of the Sierra Nevada” a workshop preceding the**  
**Mycological Society of America 2016 Annual Meeting**



Carolina Páez and Dan Luoma will present an overview of the truffle workshop that was sponsored by the Mycological Society of America and NATS. The presentation will be well-illustrated with many photographs of the montane forests of the southern Sierra Nevada and the truffles found therein — not to mention plenty of action shots of the participants. Dan will introduce the goals of the workshop. Carolina will followup with a participant’s perspective and share some of the outcomes. Carolina received support from NATS to help with her travel costs to attend the workshop.

Carolina is a Ph.D. student with Dr. Joey Spatafora in the Department of Botany and Plant Pathology at OSU, where she is looking into questions regarding the biogeography and evolution of truffles in the genus *Rhizopogon*. Dan is a professor in the Department of Forest Ecosystems and Society at OSU. He is a long-time truffle researcher with interests in forest management effects on truffles, as well as questions of biogeography and ecology.



**Hugues Massicotte**



**Alija Mujic**



**Dabau Lu**



**Rytas Vilgalys**



## June 5 Speaker: Dr. Shannon Berch



### **Documenting alpine mushrooms in British Columbia through expedition and collaboration**

In the summer of 2016, I was offered the opportunity to join an expedition of botanists, ecologists, and entomologists to some mountaintops north of Smithers, BC. While there, I made about 85 collections of mushrooms. Once back in the office, I had each of the collections sequenced. My non-expert BLAST searches of GenBank and UNITE resulted in more questions than they answered. As a non-taxonomist, I was then obliged to reach out to experts for help with the identification of my finds; that's when things got really interesting and really rewarding.

Dr. Berch is an Adjunct Professor with Botany at UBC, member of the South Vancouver Island Mycological Society and the Truffle Association of BC.

## **The 2018 ANNUAL NAMA FORAY IN SALEM, OREGON**

by Sam Landes from *The Mycophiule* March-April 2018

SAVE THE DATES!! From October 11-14, 2018, the Annual NAMA Foray will take place in Salem, Oregon. NAMA members will get notice before registration opens in early May. We will be lodging at the Macleay Conference Center just east of downtown Salem. <http://experiencemacleay.org/> The center has no hills, very few stairs, lots of parking, well-lit sidewalks and air-conditioning. We will have access to a game room, his and her saunas and a pool for a quick, crisp dip. For those of you who may not wish to share a bathroom, there are many motels located within a 15 minute drive of the Conference Center.

We will offer two pre-foray workshops for a limited number of people—mushroom dye or microscopy. Both classes have limited registration and will take place all day Wednesday, October 10<sup>th</sup> and half day Thursday, the 11<sup>th</sup>. We recommend arriving on Tuesday night if you are not local. Registration for these will be on the main conference registration forms that come out in May.

**Mushroom Dyeing:** taught by Cheshire Marysohn, president of the Cascade Mycological Society

**Microscopy:** taught by Susie Holmes, a teacher at Lane Community College in the Eugene area, who curates the Rowe-Love Herbarium at LCC. Microscopes will be provided.

Just a little over an hour drive from the Portland International Airport (PDX), Salem is also easily accessible from Eugene and Corvallis. Convenient to the Pacific Coast and the Cascade Mountain Range, there are lots of activities to do before or after the foray: touring some of the many local wineries, sampling local restaurants and brewpubs and visiting Silver Falls State Park. (We will be doing some half-day forays within the park property, but not near the actual spectacular falls.) And to add to your calendar, the annual Breitenbush foray will take place the weekend after the NAMA Foray.

Please join us for a celebration of Oregon mycologists, Oregon mushrooms and Oregon hospitality. Enjoy the outdoors and connecting with new and old friends from all over North America and beyond.

## NEW FEATURE Celebrating Longevity!

Perhaps this early treasure will instill an appreciation for just how far mycology has come. Long-time members: enjoy these early memories with hopes of more good old days to come!

# *The Fir and the Filament*

*Several thousand miles  
of filaments begin to radiate—*

*By Mike Amaranthus*



**Editor's Note:** New research is redefining the relationship between forest plants and other organisms. In the process, as is made clear in this article, the fungi are coming to be seen as key players in maintaining the health of the ecosystem.

It's not much of a mountain range. It's more a seemingly endless series of ridge systems, but it's called the Klamath Mountains of Southwest Oregon.

The vegetation, too, isn't much: shrubby, dense manzanita and madrone interspersed with scattered Douglas-fir and sugar pine. Yet on this rather unremarkable piece of ground, one of nature's most spectacular biological scenarios is about to be played out.

Several times a year, when conditions are right, several thousand miles of variously colored fungal filaments begin to radiate beneath the mountain's soil surface on a journey first taken some 400 million years ago, perhaps by a marine fungus moving toward a photosynthetic alga on an ancient landscape.

When, on our mountain, the advancing filaments penetrate the outer root of a fir tree, a startling transformation takes place: A new organism — called a mycorrhiza (literally, "fungus-root") — is created from the filament and the root. It is a marriage of convenience that has shaped our modern forest environment.

The vast majority of today's forest plants form mycorrhizae with symbiotic fungi. The fruiting bodies of mycorrhizal fungi form an extensive variety of our most distinctive terrestrial mushrooms. In addition, nearly all of the below-ground fungi, the truffles, are the

fruits of mycorrhizal fungi.

Mycorrhizal fungal filaments in the soil are truly extensions of root systems and more effective in nutrient and water absorption than roots themselves. Soil materials absorbed by the filament are transported back within the root where they are translocated to the plant. In return the mycorrhizal fungus receives sugars from the plant to fuel its activities.

It is time to revise our concepts of the relationship between forest plants, fungi, and the environment. Conventional biologic theory would have us believe that evolution of land plants was driven by fortuitous and random changes in the genes of these organisms, but this explanation appears far too simplistic.

"Marriage" between fungus and plant must have played an essential role in the evolutionary step which brought aquatic plants to terrestrial surfaces. At some point in the evolutionary process, a filament penetrated into the outer cells of a primitive plant root. Once there, it accommodated itself so nicely that a new, more complex entity emerged, the mycorrhiza. The increased absorbing area provided by an elaborate system of fungal filament allowed the plant to leave the marine environment and exploit a relatively harsh soil environment.

The latest findings of mycorrhizal researchers in England indicate that fungal filaments can link up roots of neighboring trees and certain other plants. This has led to a startling discovery about plant cooperation: Different forest tree species interconnected by a lattice structure of filaments were shown to be exchanging water and nutrients via

this "pipeline" of underground filaments.

This phenomenon contrasts with our conventional view of plant competition as "survival of the fittest." Tree species sent carbon, phosphorus and water to needy neighboring trees via filaments which linked the trees' roots. Simple concepts of the partnership between fungus and tree may have to be expanded to the community level where entire cooperating ecosystems of above-ground and below-ground species may have evolved together rather than as individuals.

Estimates of amounts of fungal filaments present in soil are astonishing. Several miles of fungal filaments can be present in less than a thimbleful of forest soil. Trees direct tremendous amounts of energy below-ground to support a rich assortment of fungi that benefit tree growth by decomposition, capture and uptake of nutrients, by protection against pathogens, by buffering against moisture stress and by maintaining soil structure.

The yield-enhancing attributes of mycorrhizal fungi are the product of diverse and complex interactions within natural systems whose relationships have co-evolved over millenia. Their activity is strongly interdependent. As mycorrhizae and their filaments maneuver through the soil they release many organic compounds that stimulate the growth of soil microflora such as bacteria, actinomycetes, and fungi which produce organic compounds that stimulate or repel other organisms.

Microflora also are a prime food source for "grazer" herbivores such as mites, nematodes, and springtails, which in turn fall prey to carnivorous





**Certain mushrooms tend to grow near certain trees, and for good reason. Only recently have forest managers realized that the health and productivity of such large things as conifers and mammals may depend on such small things as mycorrhizal fungi. (Photos courtesy of Mike Amaranthus)**

soil fauna such as centipedes and spiders. Many organisms feed on the dead remains of plants and animals that are accumulating in the soil and break down these materials into their basic components. Nutrients released by this decomposition process are absorbed by the mycorrhizal fungi and transported back to forest plants to complete the cycle.

We are, as human beings, quite impressed by the size of things. Nowhere is this more evident than in forest ecosystems. Who among us could view the centipede as being as magnificent as the bull elk? The fungal filament as being as awe-inspiring as the towering fir? Although we may never see things in this manner, certainly those small things get far less attention than they deserve.

The sizable conifer growth in managed forest stands inspires great admiration, yet the activities of

mycorrhizal fungi upon which this forest growth depends are largely unrecognized. Forest managers are beginning to realize that the health and productivity of those things large, i.e. conifers and mammals, are greatly determined by the activities and interactions of those little things, i.e. the mycorrhizal fungus. Unfortunately, their workings go largely unnoticed until the balance of the system is altered and large organisms are impacted.

In forestry we take great pride in our recent technological advances. Large sophisticated towers are used to harvest timber from our forests. Helicopters, fitted out with ignition apparatus, help in the burning of forest slash. Computers are used to determine potential outputs of forest products. Yet a fungal filament is as complex as any machine ever produced by man.

The fungi have been "engineered"

over millions of years of evolution and are constantly interacting with the fluctuating chemical, environmental, and biotic factors which surround them. These organisms contain enough genetic information to fill a university library. Each is programmed for specific activities which inevitably affect the function of those "large" forest inhabitants.

The interactions of smaller soil organisms and their forest environment were once viewed as interesting but somewhat irrelevant phenomena. Their importance in the healthy functioning of the forest ecosystem now is undeniable.

Mike Amaranthus is completing his doctorate at Oregon State University with a dissertation on "The Effect of Forest Management Activities on Mycorrhizal Fungi." He lives at Grants Pass, Ore., and is the soil scientist for the Siskiyou National Forest.

Mushroom, the Journal 11

## A True Amateur

**He sings. He fiddles. He builds cabins with his bare hands. And, since age 14, he's collaborated with some of mycology's most renown researchers.**

I'm referring to Todd Elliott, the not-so-child-anymore prodigy of the natural world, speaker for the NATS March 2018 meeting. Elliott raised the bar for future NATS speakers by opening his presentation with song. The only thing he doesn't do is tap dance blindfolded, but I wouldn't put it past him.

The story of Elliott's trajectory is also one of enduring friendship. In his lovely introduction, NATS science advisor James Trappe described their friendship's origin, dating back to his receipt of Elliott's initial inquiry as to whether he'd found a new truffle species. He had, in fact, and his accompanying technical description rendered Trappe smitten. Trappe remained smitten after their first meeting, but was more than a little shocked to realize the man with whom he'd been corresponding had yet to achieve puberty.

Their friendship continues to deepen as does their collaboration with Elliott, much like his mentor, expanding his work as a naturalist to a global scale. His presentation, highlighting fungal interactions between organisms as disparate as beetles and humans, was accompanied by an amazing slide show (he's an award winning photographer, too) from adventures undertaken all over the world (well, almost; 6 out of 7 continents is not bad). Meeting-goers went home that evening, smitten themselves, all over again, by nature's phenomenal intricacies.

These intricacies don't hide from us- we're surrounded by them, constantly. But our awe is too often diluted by the sameness of daily life, contributing to indifference, ethnobotanic centrism (intended or not), and potential exploitation of natural systems not yet fully understood. Todd Elliott suffers from a chronic curiosity about the natural world; he seems incapable of NOT having an 'awe problem' and his exuberant approach to global science is exactly what's needed in an age of increasing global connectivity.

What makes Elliott's work so important at this time is his homage for "The Original Source" and his dedication to documenting rapidly disappearing ethnobotanical heritages. What makes his scientific approach so effective is his ability to maneuver from the micro- to macro scale, allowing for a far more comprehensive picture including multiple disciplines, like history, economics, human nutrition, geography, etc.

Elliott reminds us of things we know about nature but have forgotten. His direction is an exciting one. If, somehow, it doesn't work out, there is always tap dancing. Visit Todd at <https://toddelliott.weebly.com> and/or <https://www.instagram.com/toddelliott/>.

### *The Mushroom Song*

*Well, the sunset rays are shining  
And we've got all our tools  
A basket and a trowel  
and a book with all the rules.*

*Don't ever eat Boletus  
if the tube mouths they are red.  
Stay away from Amanitas  
or brother you are dead.*

*We set out for forest to  
seek the wild mushrooom  
In shapes diverse and colorful  
shining through the gloom*

*Look under that oak tree,  
or around an old pine stump  
You can tell a mushroom's growing  
by the way the leaves are humped.*

*They sent out multiple fibers  
through the roots and sods.  
Some make you mighty sick, they say,  
or bring you close to god.*

*So here's the mushroom family,  
a far-flung friendly clan.  
For food for fun for medicine,  
they're a help to man!*

*Adapted from Gary Snyder's  
Mushroom Song*



## Trufflology for Dogs

Two dogs circle the room, catching the scent of a hidden truffle despite the artifice of indoor hunting conditions. Several minutes go by with each dog frequently pausing near an area of the room that was not, intriguingly, the designated cache site for this demonstration. Frequently enough for one meeting-goer to wonder aloud: “I have a truffle in a jar, in my bag...perhaps I should take it out of the room?” The question met with laughter from speaker and audience alike at the 2018 February NATS meeting.

The topic of the evening, how to train truffle dogs, featured a presentation by Kelly Slocum and Brooke Fochuk, and, of course, their highly skilled scent dogs, Rue and Dexter. The question staged the perfect segue to a discussion of the amazing acuity of a dog’s sense of smell.

“A dog experiences its world through scent,” Slocum explains. “When you walk into a room, and someone is making a cake, you smell a cake. When a dog walks in a room, they smell flour, eggs, sugar, butter, all the components of the cake.”

As a professional scent dog trainer, Slocum is well-versed in the olfactory capability of dogs. Over the years she has trained a variety of dog breeds to seek a variety of targets: search and rescue operations, nesting locations of endangered turtle species, cadavers, etc. These days the object of her search- the Oregon truffle – is quite a bit more palatable. “Initially, I didn’t know what they were and I didn’t care what they were,” Slocum says regarding her foray into the new realm. “My search and rescue partner, Joe, was retiring but needed something to do. Truffles were simply something I could train a dog to find.”

So how does Slocum now find herself making a presentation to the North American Truffle Society? She met Dexter. This unassuming pug-beagle cross, belonging to Brooke Fochuck of Canada, “...utterly changed my perspective on dog training,” says Slocum. Fochuck approached Slocum about training during the course of a seemingly inconsequential side trip to the States. Having primarily trained with customary ‘working dog’ breeds (German Shepherds, Malinois, Golden Retrievers, etc.) Slocum admits having less-than-high expectations for this mixed breed, but agreed to train him all the same. Fochuck and Dexter take no offense at this admission, emphasizing to the audience. “Traditionally, pugs are not noted as scent dogs.”

A mere five minutes into Dexter’s first training session, Slocum was stunned. “It became absolutely clear that, of the perhaps hundreds of dogs I’ve trained in my career, Dexter was THE best detection dog I’ve ever trained. Bar none. He found everything! The tiniest little pea-size truffles you ever saw. If you ever go out with a truffle dog and they find great big truffles, be impressed,” Kelly said. “But be really impressed with the dog that finds one the size of a pinhead.”



“Pinhead” sized *Genea* (sp nov?) found by Dexter and Rue





While its merits may be debated in other areas, there is no denying that size matters in the world of truffle commerce. This marketplace correlation between truffle size and profit margin serves as a tremendous incentive for truffle hunters. The two-legged kind, at least. While dogs are not immune to the concept of profit, it does look very different in their minds. An awareness of this difference, and actively honoring your dog's natural sense of curiosity, are key to Slocum's training philosophy.

In other words: you need to get inside your dog's head. But what does that look like?

Scent training has two primary goals: to inculcate a desired odor in your dog's palette and to identify your dog's indicating behavior when it has found the target. This is accomplished through a simple game focused on Owner:Dog communication - Owner introduces Dog to target scent; each time Dog correctly alerts to target scent, Dog gets high-value reward. This is a two-beast endeavor with success hinging on the effort of BOTH participants. It is the Owner's responsibility to maintain exuberance, clarity, patience, and neutrality for the duration of training. It's unfair to expect Dog to correctly process convoluted or inconsistent instruction on Owner's part.

A live demonstration of what this early training stage might look like was possible thanks to the attendance of OSU professor Jennifer Parke and her dog, Kaia, a border collie with no prior exposure to scent training. Watching Kaia's investigative behavior and her growing understanding of what was expected of her was a highlight of the evening for NATS members.

### The Process

If you put something on the floor in front of them, the first thing a dog invariably does is sniff it. Scent training simply capitalizes on this behavior in four main phases:

- 1) Introduction of target scent
- 2) Gradual increase of distractions in the training environment
- 3) Variance of target scent container
- 4) Transition to field hunts

Begin training in an environment with as little distraction as possible. There is no shame in using your bathroom or laundry room- limit distraction in accordance with your dog's demeanor.



**Trainer Kelly Slocum with Kaia, owner Jennifer Parke, and Brooke Fochuk**





## **The Training Components**

**Props:** Training begins simply: you, your dog, a room with minimal distraction, and the contained target odor. Containers commonly used in scent training, such as the Nucon, are available for purchase online (<http://www.lacontainer.com/containers/standard-containers/nucons>) but any container that allows odor to escape is fine, provided it still prevents your dog from eating the target.

**Scent:** Although they don't smell exactly like fresh truffles, frozen truffles retain enough aromatic compounds to adequately train a dog. Use of infused truffle aroma, on the other hand, is not recommended as it encourages your dog to alert on residual odor not an actual truffle, another extremely difficult behavior to remedy.

**Reward:** Rewarding your dog during training makes this game very satisfying for your dog. Over time, simply the hunt, your presence, and your exuberance are enough for the dog's enjoyment. The first reward-worthy behavior is the nose twitch. This indicates a sniff in progress, and when you see it directed at the training target, immediately drop a high value treat directly atop the target. How you reward during training is just as important as when. Reward as quickly as possible. Do not reward directly by hand! This dilutes the import of the target, lending an almost mystical air to the game.

The next major training milestone, a transition from sniffing to pawing the target, requires you to 'go big' with a reward jackpot, an influx of treats appearing and an increase in your exuberant praise. According to Slocum, if you are not making a fool of yourself, you are not rewarding your dog properly.

## **The Mystique**

Slocum recommends playing this game in abrupt, random bursts, no longer than 5 minutes. This allows the dog a chance to synthesize this new experience and, as Focuk noted, ending on a high note leaves a favorable impression of this exercise.

## **Continual Learning**

Continue doing training exercises multiple times a day for short sessions. Long, drawn out training sessions are about as effective as pulling an all-nighter to study for exams or doing your taxes the night before they're due.

The next stage of training involves varying truffle containment, making use of the ends of leather gloves, muslin herb bags, pill bottles with holes poked in the top of them, etc. In varying containment method, your dog learns to recognize the truffle odor as the only commonality in your exercises.

Once spot-on inside, expand the training arena - try your backyard. When the dog can maintain focus there, move to the front lawn. If the dog can't stay focused on the game, it's too big a step. Move back to the backyard. Eventually the trainee learns they will not get their reward if they break for a distraction.

## What You Should Expect



### **Asking the question: What exactly do you want me to find?**

This is an unavoidable part of every training situation: dogs test, they try- they're checking out what they're going to be rewarded for. It should not be interpreted as sneaky or adversarial behavior- it's an important part of the dog's process of figuring out exactly what you want. They are essentially asking: "Do you want me to find the truffle or that piece of cheese on the kitchen floor?" By not rewarding on false alerts, you answer the question.

Don't rush the process, even if your dog seems to have an accelerated learning rate. Your dog still has a dozen questions that have not been answered. Let these questions manifest at a rate appropriate for you to address individually.

### **Some Trouble Shooting**

When your dog hits a snag in training, the least helpful approach is a reprimand. It is not conducive to learning. Rather, practice what Slocum calls 'extinguishing behavior' anytime the dog is doing anything BUT what you want. This entails the Trainer patience and neutrality mentioned earlier. Dogs know when they make Owner happy and this, although not as tasty as a handful of ham, is Dog's most basic reward. This strategy will eventually lead the trainee back to the appropriate target.

Here are answers to some of the most commonly asked questions about scent training:

#### **1) How early can I start scent training my dog?**

Not until the dog is at least 1 year old. The first year of the Owner/Dog relationship needs to be learning about you and obedience. A strong recall, be it for truffle hunting or otherwise, is the most important aspect of training at that time.

#### **2) Do dogs eat truffles?**

Truffles are safe for dogs to eat...and they know it! Never let your dog get a taste of truffle. This is a major training issue resulting in a behavior that is difficult to break. Again, contain your target with a container that allows scent to escape but prevents the dog's access.

#### **3) Can I train my dog to find more than one scent?**

Train for one scent at a time.

#### **4) Can I train both of my dogs to find truffles?**

For your own sanity, train one dog at a time.

If you are interested in learning more about the process of scent dog training, feel free to contact Slocum for more information at:

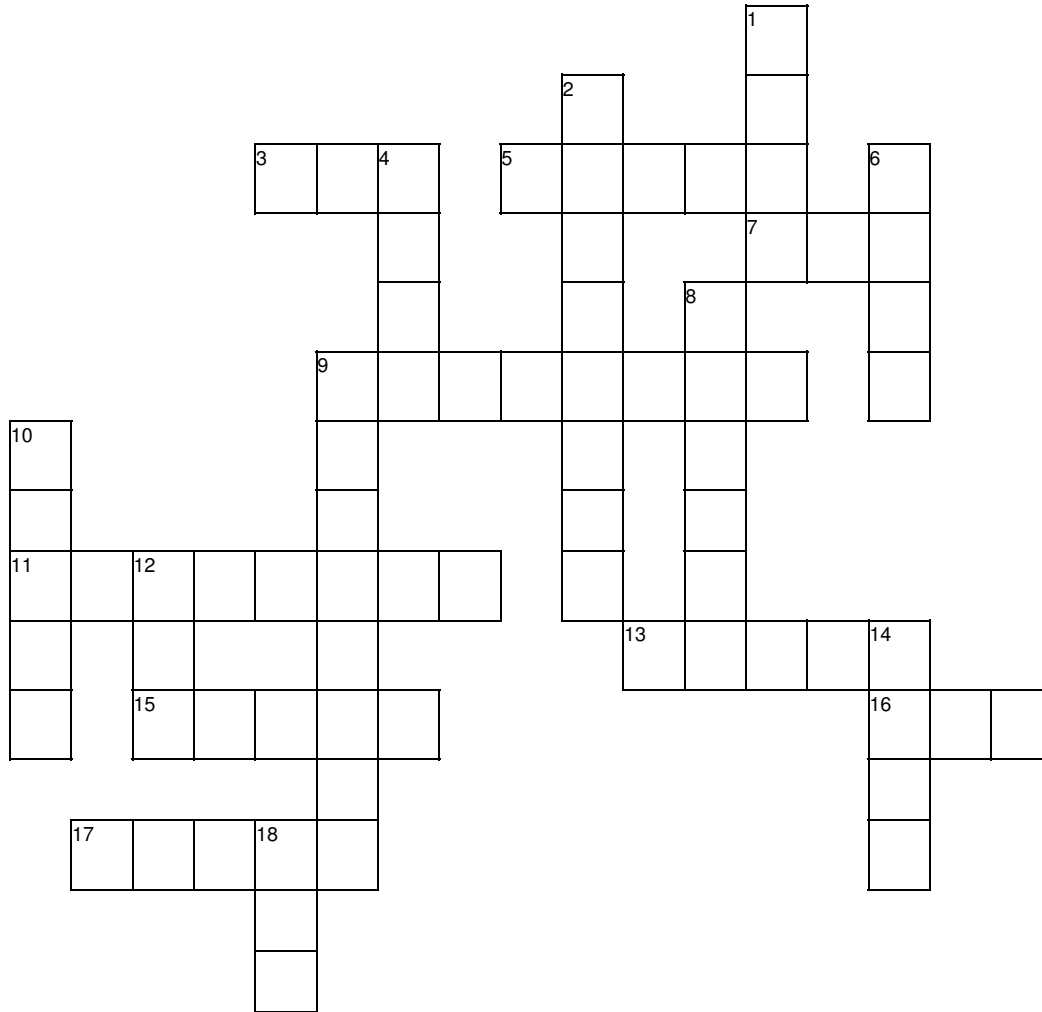
<http://scentdogtraining.com>



**Dexter the wonder dog**



# The Truffler Crossword, #1



## Across

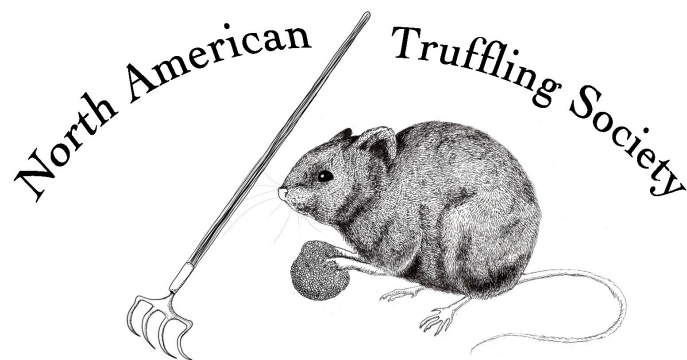
- 3. NATS best secretary
- 5. A truffle's weird cousin
- 7. How long it takes to find a truffle without a dog
- 9. France's equivalent to Italy's Piedmont region
- 11. The kind of mushroom to put in a cookie
- 13. NATS longest-serving Treasurer
- 15. 'Shallow gold'
- 16. Truffle compounds act as aphrodisiacs to these 4-legged creatures
- 17. Wielder of Meeting Gavel

## Down

- 1. Spore disperser
- 2. Dish often paired with truffles in France
- 4. Truffles are myccohrizal with
- 6. Victims of Cordyceps who climb to great heights
- 8. The Pope of the Truffle World
- 9. A truffler's arch nemesis
- 10. What happens when you forget you have truffles in the car trunk
- 12. Squirrels like truffles better than \_\_\_\_\_.
- 14. Transparent sacs within which truffle spores form
- 18. Man's best friend

**BE THE FIRST TO SOLVE THE CROSSWORD  
PUZZLE AND WIN AN OPPORTUNITY TO  
CALL THE NEXT NATS MEETING TO  
ORDER WITH THE PRESIDENT'S GAVEL!**



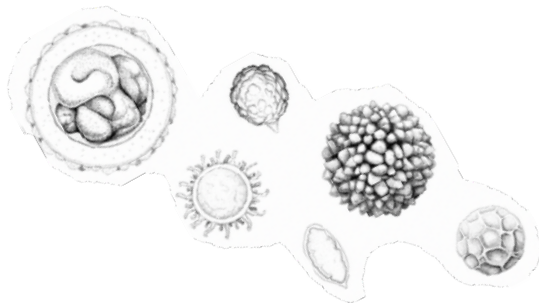


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## WANTED

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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](mailto: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.

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## UNIDENTIFIED TRUFFLE?

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### What to do?

Visit [www.natruffling.org](http://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](http://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](http://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+