

The North American Truffler

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Recent Truffle Dog Training was a Success



Jeannine May, NATS truffle dog trainer, is posing with her truffle finder Isis, in front of the cart that they will use to haul out the really big truffles from the forest.

The North American Truffling Society (NATS) encourages sustainable harvesting of truffles by using dogs. Because dogs can be trained to detect mature truffles with a strong fragrance, only ripe truffles are harvested. This not only leads to a better culinary experience, but it protects the truffle habitat so that there will be good harvests in the future. Since 2010, NATS has periodically offered moderately priced truffle dog training classes in order to carry out our educational mission.

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The second truffle dog training class of 2012 was held in Corvallis, Oregon on Saturday November 10, 2012. Truffle dog trainer Jeannine May lead the class through the steps of how to effectively train your dog in the art of finding ripe Oregon white truffle or the Oregon Blacks. Jeannine has been involved with dogs and dog training for over 30+ years. Jeannine draws on her background in Positive reinforcement training as the basis for her truffle dog program and has receives high marks in evaluations from her classes.

A mix of owners with dogs and those auditing the class participated in the day-long training session. Training combined classroom instruction as well as field work. Participants came from as far south as Ashland, and as far north as Longview and Bellingham, Washington. The dogs participating in the class were a Lagotto, a Labrador, a blue heeler, a Dutch shepherd and a collie. The dogs ranged in age from four months to eight years.

At the beginning of each training, an overview of the roles of truffles and other fungi in forest

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ecology, along with landowner forest management considerations, is presented by Dr. Dan Luoma of OSU's College of Forestry. This introductory material provides class participants with a broad context for understanding how the prizes of the hunt (truffles) fit into the webs of life in a forest. Mysti Weber, also a NATS member, assists Jeannine in the class.

Student Question About Mushroom's Maple Syrup Odor Takes 27 Years to Answer

From Humbolt Now

When it comes to long-running student questions, Darvin DeShazer's ('72, Biology, '86, Education) might take the cake.

DeShazer was a graduate student in 1985 when he became interested in the odor-causing chemical of the candy cap mushroom. Frequently used in cookies, cakes and ice cream, the mushroom is odorless when fresh but smells like butterscotch or maple syrup when dried.

So he asked Chemistry Professor William Wood, a specialist in chemical ecology. Wood didn't know the answer, so he encouraged DeShazer to help him find an explanation. Their research finally ended last month when Wood identified the chemical as "quabalactone III," using a relatively new technique called solid-phase micro extraction.

He published the findings in a recent issue of *Biosystematics and Ecology*. "It was a question that was bothering me for about 25 years," Wood says.

Interestingly enough, the question didn't pique Wood's curiosity initially, DeShazer recalls: "It wasn't on his radar."

But as the years went on—and DeShazer's question remained unanswered—Wood's fascination grew. After DeShazer graduated, Wood assigned a succession of four students over several years to pick up where DeShazer's research had left off. They and DeShazer are listed as co-authors on the paper.

Although each student reached the same dead end as DeShazer, their findings contributed to the final breakthrough, Wood says. That came earlier this year when Wood decided to try a new technique to identify the chemical called solid-phase micro extraction.

During previous attempts, students had dissolved the mushroom in a solvent before using a gas chromatograph-gas spectrometer, a machine that separates, weighs and fragments molecules to identify unknown compounds. But that technique sullied the sample with impurities.

With the new method, Wood was able to isolate the gas molecules responsible for the scent. He determined that "quabalactone III" likely forms from free amino acids after the mushroom dries.

The chemical is also found in the flowers of the Rosita de Cacao tree, native to South America. Aztecs once used the flowers as perfume and to flavor chocolate drinks.

The dry candy cap fragrance is so strong—and long lasting—that Wood still uses the sample he picked in the woods 25 years ago. Today, an eight-ounce package sells for about \$150 online.

Wood says the paper was a group effort because each student's research brought him closer to the answer. The other alumni authors are Jay Brandes, Brian Foy, Christopher Morgan and Thierry D. Mann.

DeShazer, now a high school biology teacher in Petaluma, Ca. and science advisor for a local mushroom club, says he was amazed to hear Wood had made headway.

"I was little surprised that he was actually still working on it," says DeShazer. "But it was definitely satisfying." He now uses the story as a teachable moment in class. "High school kids are incredibly impatient so the fact that it carried on for a quarter of a century and finally yielded results was kind of a big deal," DeShazer says.

Not long after the research was published, someone asked him to bake a cake for a school fundraiser. "Of course I put the mushrooms in it," DeShazer says. "It took the highest bid."

CALENDAR OF EVENTS

NATS NOVEMBER FORAY

PLACE: KINGS VALLEY

TIME: SAT. NOV. 24, 2012

This will be the foray to collect truffles for the December Potluck. Please visit the NATS website (www.natruffling.org) for more information.

NATS DECEMBER POTLUCK

PLACE: CORVALLIS SENIOR CENTER

TIME: SAT. DEC. 1, 2012, 5:00PM DINNER AT 6PM.

Speaker: The speaker will be Dr. Matt Trappe, presenting "Wild Edible Mushrooms After Fukushima: Are They Safe To Eat?" The meeting is held at the Corvallis Senior Center, on 27th St. one block north of Harrison. Bring a dish to share*, tableware, and the beverage of your choice. *please provide a list of ingredients for those on restricted diets.

NATS JANUARY MEETING

PLACE: CORVALLIS MULTICULTURAL LITERACY CENTER

TIME: TBD

Please visit the NATS website for more information. The meeting will be held at the Corvallis Multicultural Literacy Center at 128 SW 9th street in Corvallis.

NATS JANUARY FORAY

PLACE: TBD

TIME: TBD

See the NATS website for more information.

OREGON TRUFFLE FESTIVAL

PLACE: EUGENE, OREGON

TIME: JAN. 25 – 27, 2012

The 8th annual [Oregon Truffle Festival](http://www.oregontrufflefestival.com) will be held in and around Eugene, Oregon over three brisk winter days. Created to celebrate the magnificent Oregon truffles as they reach the peak of ripeness in their native soil, it is the first festival of its kind in North America, dedicated to sharing the experience of the chefs, foragers and fans of Oregon's wild truffles, from their hidden source in the forest to their glory on the table. Festival events include educational seminars, truffle dog training, field trips, a truffle marketplace, and of course a variety of gourmet food events, culminating in the Grand Truffle Dinner. www.oregontrufflefestival.com.

Please Remember to Renew Your Membership for 2012.

A membership renewal form can be found at the end of this issue, or you can renew online at www.natruffling.org. Please renew now! We appreciate the support of each and every member.

Editor's Comments

The late summer/fall mushroom season has been very odd this year. After picking many pounds of Chanterelles and Hedgehogs on the coast in later August and September, things started to slow down. Once mid-November hit, the Boletes came on a bit later than usual.

I haven't heard much in the way of truffles being found in any quantity yet. Let's keep our fingers crossed.

As always, I need newsletter submissions. Please send them in to me!

Jon Kenneke, *Truffler* Editor - jon@kenneke.com

Disclaimer

The 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 contained in the newsletter. If you are unsure of mushroom identification or safety, please consult an expert. It's better to be safe than sorry!

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.



The Truffler Recipes

Both of the following recipes are from “The Cookbook of North American Truffles”, which is published by NATS, and it available for purchase at <http://www.natruffling.org>. The cookbook is also available in Kindle format at www.amazon.com. Non-traditional truffles are used in the below recipes, which give an entirely new truffle experience.

Melanogaster Butter

This recipe makes for an interesting spread for French bread.



1 Stick Butter
1-3 *Melanogaster* truffles

Melt a stick of butter, shave (or scrape) in a few *Melanogasters* (perhaps 1-3, depending on their size), stir in and simmer briefly. Pour into a teacup and refrigerate overnight. To serve, pop solidified butter out of teacup upside down onto a plate using a spatula. The *Melanogaster* will have sunk to the bottom, and

as served should form a dark layer on top of the butter dome. This spread has an intriguing earthy flavor best appreciated on a mild-flavored bread.

Matt Trappe

Truffle Snack Chips

When these chips first appeared at the NATS Annual Potluck, a near riot ensued as the faithful gathered around for a taste or two or three. If you are lucky to find a quantity of truffles, try this one out!



Truffles (many *Rhizopogon* species are large and suitable, especially *Rhizopogon occidentalis*)

Butter
Seasoned salt
Garlic Salt according to taste

Slice the truffles into thin (1/4 inch thick) slices while fresh. Dry the slices. Brush them with melted butter to which can be added garlic salt, seasoned salt, etc. Cook the buttered slices in the microwave over for about 5 minutes (until brown). Each species will require a slightly different time, so experiment a little. Dip the prepared dried truffle chips in your favorite dip for a truly unusual treat!

Dr. James M. Trappe



Call for Newsletter Submissions

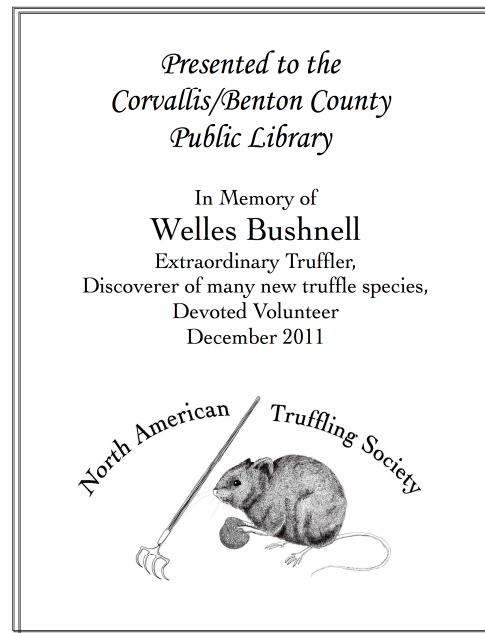
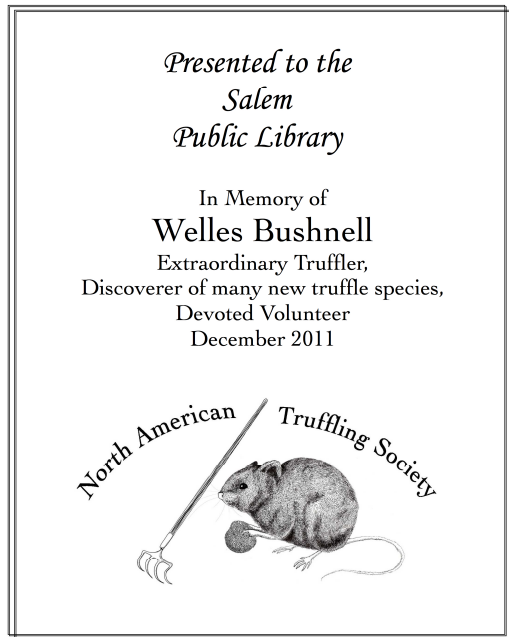
As you probably already know, *The North American Truffler* is published every quarter or so. If you, as a member of NATS, have articles, experiences, or recipes you would like to have published in the newsletter, please submit them to the editor. His email address is: jon@kenneke.com. Any type of format is accepted.

We also appreciate photographs of NATS forays and other interesting things!



Welles Bushnell Memorial Fund Donates Books to Libraries

A memorial fund honoring long-time NATS treasurer member Welles Bushnell has donated truffle-related books to the Corvallis and Salem public libraries. The below plates have been inserted into the books honoring Welles:



The following books have been donated in memory of Welles:

Ian R. Hall, Gordon T. Brown, Alessandra Zambonelli,
Trudell, S. and Ammirati, J.
Miller, O. K. Jr. & Miller, H. H.
Arora, D.

2007 **Taming the Truffle, The History, Lore, and Science of**
2009 **Mushrooms of the Pacific Northwest**
2006 **North American Mushrooms: A Field Guide to Edible**
1986 **Mushrooms demystified: A comprehensive guide to th**

Arora, D.	1991	All the Rain Promises and More
Marley, Greg A.	2010	Chanterelle Dreams, Amanita Nightmares.
Renowden, Gareth.	2005	The Truffle Book.
Dedulle, A. and de Coninck, T.	2009	Truffles: Earth's Black Diamonds.
Luard, Elizabeth.	2006	Truffles.
Bucquet-Grenet, Sabine, Dubarr, Francoise and Stella, Alain.	2001	The Little Book of Truffles
Safina, Rosario and Sutton, Judith.	2003	Ultimate Luxury, Everyday Pleasure
Etienne, Christian.	2001	The Magic of the Truffle
Santore, Charles.	2011	Three Hungry Pigs and the Wolf Who Came to Dinner
Montecchi, A. and Sarasini, M.	2000	Funghi ippei d'Europa

Two copies of each of the books that NATS sells were given to both the Salem and Corvallis libraries

Maser, C., Claridge A.W., and Trappe J.M.	2008	Trees, Truffles and Beasts--How Forests Function.
Trappe, M., F. Evans & J. Trappe	2007	Field Guide to North American Truffles: Hunting, Identification
NATS cookbook	2011	NATS cookbook



NATS Meeting Minutes

NATS Meeting November 6, 2012

The meeting was held at the Corvallis Multicultural Literacy center, 128 SW 9th Street in Corvallis. President Marilyn Hinds called the meeting to order. Introductions were made around the room.

The October 9th minutes were presented. Pat Rawlinson made a motion to accept the minutes as presented, Sylvia Donovan seconded the motion and the minutes were approved by the vote of the attending membership.

Treasurer Zelda Carter gave the treasurer's report. Zelda has paid for all the reference books with book plates and there is \$19.85 remaining of the \$439.25 funds donated is for the Welles Bushnell Memorial fund. Zelda is awaiting receipts for purchases of books and TDT.

Mysti Weber, Membership Coordinator gave the membership report. She has finished the 2012 membership year and has started the 2013 membership year. There were 194 members, the income of

which amounts to \$2647.95. So far, we have 5 members for the 2013 year for a membership revenue total of \$68.74.

There was no foray report at the November meeting. The November foray will be held the 24th so that fresh truffles may be available for the December 1st NATS annual potluck and meeting. The foray will be in Kings Valley on a site where black truffles (*Leucangium carthusian*) may be found. The details of that and all the forays will be on the NATS website.

Joyce Eberhart gave the Welles Bushnell Memorial book report. The books have been purchased, the book plates attached and delivered to the Corvallis and Salem Libraries.

Marilyn Hinds has organized the second Truffle Dog Training. Dan has reserved the Forestry Club cabin for Truffle Dog Training the 10th of November. Interest has increased and we have several registrations for the class. There are 3 dogs and three audits ensuring that we can cover the cost of the workshop.

Sylvia gave the T-shirt report. Jim Trappe has approved the vole design created by Tate McMillen; Sylvia will present the designs to the board for perusal at the next board meeting. We have an adequate amount of t-shirts with different designs; therefore we won't need to order the new designs for a while.

Marilyn Hinds gave a report on the NATS October events. NATS was present at the Lincoln City Mushroom event, the Yachats Mushroom, the Oregon Mushroom Society event manned by Adrian Beyerle and the Mt Pisgah Mushroom Festival during October.

Marilyn Hinds showed the new, very nice banner for display and identification of our club at various events. We appreciate Marilyn for initiating and seeing this project through.

Vice President Joyce Eberhart introduced the speaker Dr. Luis Garcia-Montero, visiting from the University of Madrid, Spain. His talk is titled, "Research on the ecology of black truffles in central Spain".

The meeting was adjourned and delicious refreshments provided by Helen Yahiku were served.

NATS Meeting October 9, 2012

The meeting was held at the Corvallis Multicultural Literacy center, 128 SW 9th Street in Corvallis. President Marilyn Hinds called the meeting to order

The June 5th minutes were presented. Pat Rawlinson made a motion to accept the minutes as presented, Mysti Weber seconded the motion and the minutes were approved by the vote of the attending membership.

Treasurer Zelda Carter gave the treasurer's report. There is \$5355.58 in the NATS bank account. \$439.25 is for the Welles Bushnell Memorial fund and \$4916.33 in the general fund.

Mysti Weber, Membership Coordinator gave the membership report. There are 194 members, the income of which amounts to \$2647.95.

Sylvia Donovan gave the foray report and said they all had a really good time. The foray was the weekend of October 6th and 7th and held at the Hackleman Creek Old Growth Grove and other areas around Clear Lake. The foray was in cooperation with the Forest Service to seek out rare truffles in the area; the Forest Service provided the cabins for people who stayed overnight. *Rhizopogon spp.* was the most abundant

truffle found at the foray site. Sylvia said that the Forest Service may host another similar foray in June. The details of that and all the forays will be on the NATS website.

The next truffle foray will be in Kings Valley on a site where black truffles may be found (details will be provided before the foray). The unusual date for the foray is November 24th so we may harvest truffles for the December 1st NATS potluck.

Welles Bushnell Memorial: Joyce Eberhart gave the Welles Bushnell memorial book report. The book list is almost complete and will be given to the board when it is determined that all the books can be found. Joyce is working with Grass Roots Bookstore to locate the books on the list. Joyce may be able to obtain the less available books from Germany via the Internet. There will be about 20 books with name plates donated to the Corvallis Library and six books will be donated to the Salem Library.

Dan has tentatively, and depending on interest for the class, reserved the Forestry Club cabin for Truffle Dog Training the 24th of November.

Peter Kennedy may want us to obtain *Alpova spp.* truffles for research in his lab.

Sylvia gave the T-shirt report. We have received the t-shirts from John. Sylvia has Tate McMillen, a commercial graphic artist, working on new t-shirt designs. She has received preliminary designs and will show them to the board at the next board meeting. We won't need to buy new t-shirts for a while, so this is a work in progress.

Marilyn Hinds gave the report of the Lincoln City Mushroom cook-off. We sold three items, tasted the great cuisine, talked to people, and may have cultivated a place for a possible foray on a tree farm in the Willamina, Oregon area. We felt the event was good for education and introducing people to the North American Truffling Society.

The Willamette Valley Mycological Society asked (NATS) to advertise Taylor Lockwood's talk on our website, Taylor Lockwood's talk will be on his travels, mushrooms, stories, and his new video DVD "In Search of the Holy Veil" The talk will be at the Salem BLM Office at 1717 Fabry Road, S.E., Salem, OR 97306. Discussion followed. It was decided that it was OK to advertise the talk on the NATS website. We may ask OMS and Willamette Valley Mycological Society to advertise our Truffle dog training courses on their websites.

Marilyn Hinds asked for people to help at the Yachats Mushroom Festival the weekend of the 19th and Mt. Pisgah.

Marilyn Hinds suggested that we get a NATS banner. Marilyn got an estimate of about \$80.00 for a new banner. She will develop the sign design. A motion was tendered, seconded, and the motion was carried to obtain the banner.

Vice President Joyce Eberhart introduced the speaker, Dr. Jennifer Walker, postdoctoral researcher with Peter Kennedy at Lewis and Clark College. She presented her talk "Below ground fungal diversity: what drives ectomycorrhizal community composition".

The meeting was adjourned and delicious refreshments provided by Betty Orner were served.



Toby Esthay

Northernmost *Tuber oregonense* Found



In early October, Dan Luoma and Joyce Eberhart attended the Quadra Island Mushroom Festival. Quadra Island is just a little ways off the eastern coast of Vancouver Island, British Columbia, about 200 miles north of Victoria. On one of the collecting forays for the mushroom show, Joyce found an erumpent truffle that Dan later identified as *Tuber oregonense*. It was about an inch and a half in diameter, with beautiful red tones. Unfortunately, it was mostly immature, but there were a few spores present, and some odor was detectable as it dried.

A bit of the truffle was used for DNA extraction, and sequencing showed it to match perfectly with *T. oregonense* sequences submitted to GenBank by Greg Bonito. Previously, the most northern known locations were in Vancouver, BC area including one collected in 1931 from Stanley Park.

Fall 2012 in Pictures



Chanterelles and Hedgehogs, - J. Kenneke



Boletes for dinner! – J. Kenneke



Boletes, Southern Oregon Coast - J. Bianco



Pisolithus from Singapore



Bolete – Toby Esthay



Boletes – Toby Esthay



Toby Esthay



Toby Esthay

NATS Invites You to Renew Your Membership for 2013!

The officers and board members of NATS greatly appreciate that our members have shown for our society.



the enthusiasm

You can help ensure that 2013 is another banner truffle

year!

We are seeking more volunteer help with officer and committee chairperson activities (secretary, foray leader, booth staffing, etc.) If you would like to be more involved, please contact us. Thanks! For those of you who have not yet renewed your membership, you can do so by mailing in your dues to the address below. If any of your contact information (address, phone, email) has changed, please let us know so we can stay in touch.

THE NORTH AMERICAN TRUFFLING SOCIETY, INC.

P.O. Box 296

Corvallis, Oregon 97339

www.natruffling.org

Name(s): _____ Phone: _____

Address: _____

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

Country: _____ (if other than USA)

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+.

North American Truffling Society (NATS)
P.O. Box 296
Corvallis, OR 97339
www.natruffling.org

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Field Data \Truffle ID Cards:

Collector_____	Date_____
Location_____	

County_____	T/R/S or Lat/Long_____
Elev_____ Aspect: N NE E SE S SW W NW	
Growing On/In: Moss Mineral Rotten Needle (Circle one or more) Soil Wood Litter	
Other/Notes_____	
Overstory Trees_____	
Understory Shrubs_____	
Fresh Notes (color, odor, etc.):_____	

Collector_____	Date_____
Location_____	

County_____	T/R/S or Lat/Long_____
Elev_____ Aspect: N NE E SE S SW W NW	
Growing On/In: Moss Mineral Rotten Needle (Circle one or more) Soil Wood Litter	
Other/Notes_____	
Overstory Trees_____	
Understory Shrubs_____	
Fresh Notes (color, odor, etc.):_____	
