The North American Truffler

Journal of the North American Truffling Society

Volume 39, Issue 3 **Winter 2022**

In this Issue:

Announcements

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Once again, due to COVID-19 concerns, NATS monthly speaker meetings will continue to be hosted on ZOOM.

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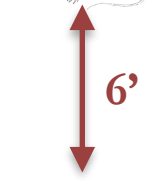

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So you can keep the sweatpants on.

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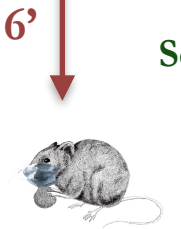
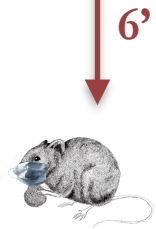




NATS (Potential) Potluck Dinner

✦February is the month that NATS holds a celebratory potluck party. Last year the potluck was canceled due to the pandemic. The board is waiting to see the state of the world, or at least our little corner of it, before deciding whether or not to hold the potluck in 2022.

✦The board has decided that if we have the potluck we will require proof of vaccination with your reservation for the safety of our older and/or health compromised members.

✦ Our venue, the Corvallis Community Center (which used to be called the Senior Center), requires participants to socially distance and to wear masks except when eating.

✦ See page 3 for (slightly) more info about the February meeting

NATS Winter 2022 Featured Speakers

January 4, 2022 Andy MacKinnon and Kem Luther

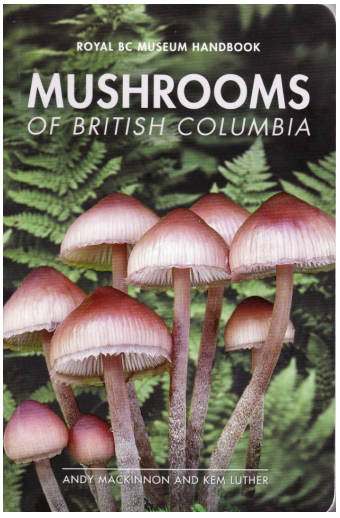
Mushrooms of BC: The Story Behind the New Royal BC Museum Handbook

Kem Luther, Indiana Jones of mycology

Andy MacKinnon puts the fun in fungi

Zoom in for the January 2022 NATS speaker meeting for a rollicking talk by Andy MacKinnon and Kem Luther, co-authors of the new Royal BC Museum Handbook, *Mushrooms of BC*. Released in September 2021, this marks the third volume in the Royal BC Museum's popular Handbook series, preceded by George Hardy's 1952 *Some Mushrooms and Other Fungi of British Columbia* and Robert Bandoni and Adam Szczawinski's 1964 (rev. 1976) *Guide to Common Mushrooms of British Columbia*. More than two dozen essays on a wide variety of BC mushroom-related topics are scattered throughout its 502 pages in addition to descriptions and illustrations of more than 350 species with further mention of 850 other species.

Their presentation will review the reasons for producing a new BC mushroom guide, the process involved in producing it, and some of the recent developments in mycology that complicate the production of mushroom guides.



Kem and Andy, who both live in Metchosin, BC, are cofounders of the Metchosin Biodiversity Project (metchosinbiodiversity.com). They are both enthusiastic participants, speakers, and field trip leaders for various mushroom festivals in southwestern BC each autumn.

Winter 2022 Speakers (con't) **February 2022 meeting**

When will the meeting be?

Probably either Feb. 8 if via Zoom, or Feb. 12 if we have our potluck celebration

Where will the meeting be?

Either in the comfort of your own home, or at the Corvallis Community Center

Who will the speaker be?

It depends…

Stay tuned and wait for an email from NATS!!

Whatever the circumstances of the February meeting, please remember that the potluck is the only fundraiser that we hold to raise money for the Pavelek Scholarship fund! Feel free to go to http://www.natruffling.org/scholar.htm to **donate generously to this fund**. Future mycology students will adore you.

March 8, 2022 Becky Loverock

The effect of irrigation in a Canadian black truffle (*Tuber melanosporum*) orchard

Truffle orchards need irrigation- not too much, though, and not too little, either. Is there a 'just right' associated with truffle orchard irrigation and optimal truffle production? Learn more at the March 8, 2022 NATS speaker meeting, where Becky Loverock will present an overview of her investigation of the impact of varying irrigation levels on production of black truffle fruiting bodies.

Results of similar studies in Spain and Australia have been mixed: moderate irrigation levels yielded the highest amount of black truffle DNA in Spain yet higher water input yielded greater quantities of black truffle DNA in Australia. But what's the story in Canada?

Loverock is a graduate student at the University of British Columbia, co-advised by Dr. Dan Durall and recent NATS speaker, Dr. Shannon Berch. She finds fungi amazing in their own right, but stresses what drew her to the field of mycology is the passionate, kind individuals of the fungal community. She is excited to be a part of this community, and hopes her project will help truffle growers around the region optimize water use while maximizing truffle production. Don't miss this fascinating presentation!

2022 Pavelek Scholarship Awardees

Becky Loverock

Does the name seem familiar? It should as Becky will be telling NATS about her research in March this year! See the description on page 3 of this issue.

As the North American truffle industry continues to expand, questions have emerged regarding the best practices in the production of commercial truffles. Becky Loverock has plans to resolve some of these questions with research addressing the most fundamental of agronomic inputs: water.

Becky received an Associate of Arts degree from Okanagan College in 2015. In 2018, she graduated with honors from the University of British Columbia, and has since pursued a Master's of Science degree at the same institution.

Becky hopes to provide regional truffle growers with information to optimize water use while maximizing truffle production.To this end, she's initiated collaboration with others in the truffle community, carrying out field work in the orchards of the Truffle Association of British Columbia, as well as contacting other scientists interested in further development of the North American truffle industry.

Congratulations, Becky! We hope you will be involved in the mycology community for many years.

Brandon Stairs

Brandon began his Master's program with Oregon State University's Botany and Plant Pathology program in fall of 2021. His research focuses on factors impacting the virulence of *Rhizopus microsporus*. He posits that genomic differences are the primary determining factor of virulence, and that these differences can be identified through molecular comparison of clinical and environmental isolates.

Research Brandon conducted in the summer preceding his program of study yielded preliminary data suggesting a correlation between genomic composition and geographical distribution of *R. microsporus*.

He is also interested in the ways in which geographically isolated populations diverge at the intraspecific level. Ever thorough, he also intends to isolate any endosymbiotic bacteria present to investigate the role of bacteria in fungal virulence.

Brandon is currently working to expand his computational biology skills and gain experience conducting wet lab procedures. He plans to use these skills in a career in medical mycology in order to advance knowledge in fighting fungal diseases.

Congratulations, Brandon, NATS waits with interest to follow your endeavors.

PREVIOUS PAVELEK WINNERS

1995 Teresa Lebel

1998 Ari Jumpponen

1999 Matt Trappe

1999 Charles LeFevre

2000 Admir Giachini

2001 Kelly Collins

2001 Kentaro Hosaka

2002 Kristen Whitbeck

2004 Oralia Kolaczkowski

2004 Jonathan Frank

2006 Greg Bonito

2006 Matthew E. Smith

2007 Roseanne Healy

2008 Hannah Reynolds

2009 Todd Elliott

2010 Alija Mujic

2011 Chelsea Reha

2013 Carolina Paez

2014 Ryan Stephens

2014 Dabao Lu

2019 Samantha Fox

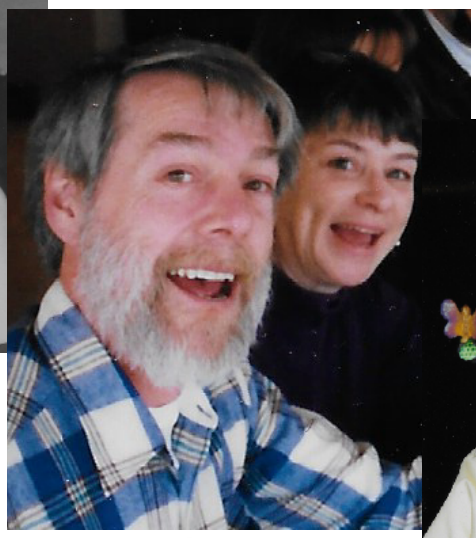
2019 Arthur Grupe, II

2021 Marcos Sepulveda

2021 Carolina Pina Paez

Frank Evans has been involved with the Pavelek scholarship fund management since its inception. He is a generous man who loves to share his enthusiasm with the students who win the award. Frank is now passing the torch on to others to carry on his good work. We suspect he will still be willing to share his talents with us in the future!

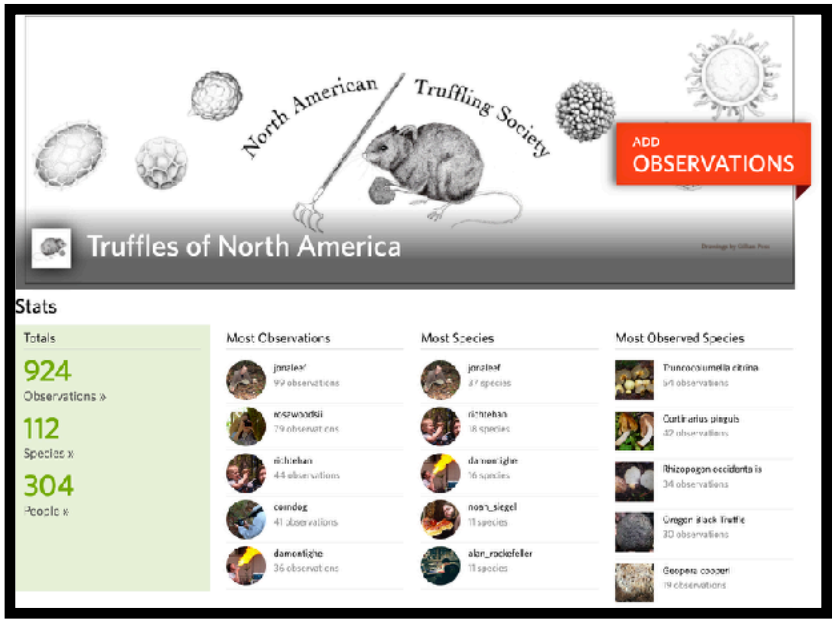
Thank you Frank, for your many years of service with the Pavelek Scholarship!



NATS has awarded $34,400 to students of mycology through the Pavelek Scholarship Funds!

NATS on INaturalist: Update

The NATS iNAT project continues to gain steam, with an additional 274 observations reported in the 3 months since our last newsletter. This brings the total to **924** observations of **112** species that were observed throughout North America.



Specimen Highlight: *Rhopalogaster transversarius*

An interesting specimen from Florida was submitted on November 29, 2021. This "truffle" belongs to the family Hysterangiaceae, thereby making it a relative to some common *Hysterangium* species here in the Pacific NW. Although this species fruits above the ground, it is truffle-like because it has the spore bearing tissue entirely enclosed like an underground truffle.

Submitted by phillbobaggins In Nocatee, FL

https://www.inaturalist.org/observations/102178437

Rhopalogaster transversarius (Bosc) J.R. Johnst. [as '*transversarium*'], *Proc. Amer. Acad. Arts & Sci.* **38**(3): 70 (1902) [1903]

Synonymy:
Cauloglossum transversarium (Bosc) Fr., *Syst. mycol.* (Lundae) **3**(1): 61 (1829)
Lycoperdon transversarium Bosc, *Mag. Gesell. naturf. Freunde, Berlin* **5**: 87 (1811)

Going truffling? Please consider uploading photos of your truffles to NATS' iNat page. It's easy, fun, and can be done using your smart phone or a computer. AND, you can easily obscure the location of your finds so nobody else finds your secret spots. See the bottom of page 9 for more information.

FunDiS West Coast Rare Fungi Challenge
October 2020 - March 2025

Are you hooked to the thrill of a mushroom hunt? Does kingdom fungi ring your bell? Have you a hankering for community science? Then join thousands of community scientists across North America in the Fungal Diversity Survey (FunDiS).

FUNGAL DIVERSITY SURVEY

FunDiS is a nonprofit 501(c)(3) organization dedicated to a world in which the fungal kingdom is fully documented, understood, appreciated and protected. With just under 10% of fungal species documented and impending threats of habitat loss, pollution, and climate change, the need to catalogue and map fungal species before they expire is acute.

FunDiS strives to increase scientific knowledge and public awareness of the critical role of fungi in the health of our ecosystems and to better utilize and protect them. We do this by equipping community scientists, working with professionals, with the tools to document the diversity and distribution of fungi across North America. There are 3 primary FunDiS programs: improved diversity databases; rare fungi challenges; community science projects.

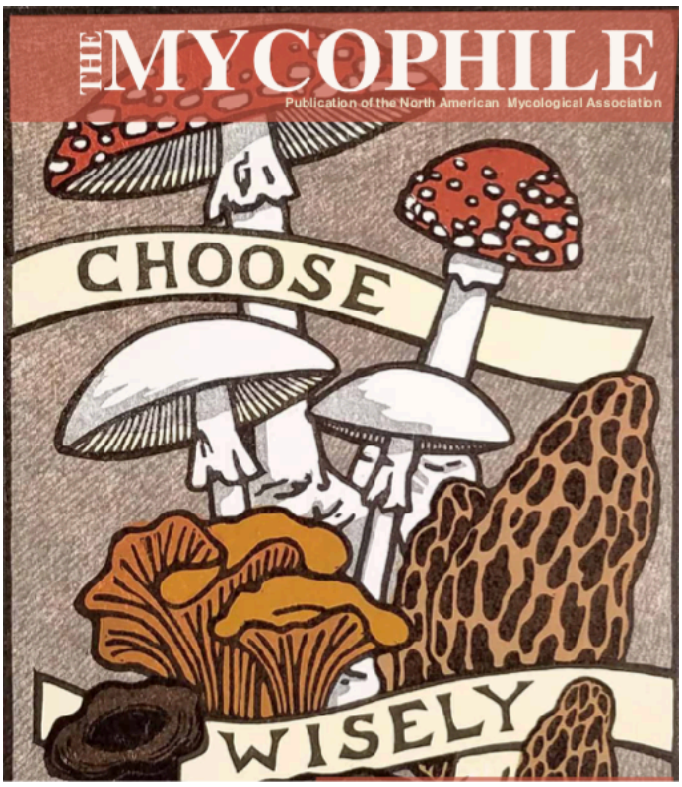
What's a Rare Fungi Challenge and is there one in my area?

Rare fungi challenges document rare and threatened fungi in various regions of North America. And YES! There is one in the PNW. Piloted in October 2020, the West Coast Rare 10 Challenge resulted in collections of 10 endangered fungal species from Alaska to California. The West Coast Challenge will continue, year-round, with searches for an additional 10 fungal species. Help us find and document a target list of rare, under-documented or potentially threatened fungi. Your high quality citizen observations can make a difference to scientists, conservationists, and fungi. For more information about FunDiS and to see the next 10 endangered species on the target list, please visit: https://fundis.org/protect/take-action

Be sure to check out FunDiS,s bi-monthly eNewsletter, **Funga Decoded** at: https://fundis.org/resources/email-list

NAMA News

by Dave Pilz



NATS is a dues-paying affiliate of the North American Mycological Society (NAMA), which is an umbrella organization of mushroom clubs and mycological societies. The latest NAMA newsletter, the Sept/Oct issue of The Mycophile, describes NAMA as a flourishing organization. There are nearly 100 affiliated clubs and more than 1300 individual members. Their annual foray this last August was held in the Colorado Rockies. At this foray, NAMA Memorial Fellowship winner Carolina Piña Páez's presented "Conifer Islands in the Sky: The Impact of Isolation in Rhizopogon Communities."

In October 2018, the NAMA foray in Salem, OR awarded our founder, Dr. James Trappe with their "Lincoff Award for Contributions to Amateur Mycology."

NAMA has elected a new, proactive President, Barbara Ching. She is pursuing ways to engage more fully with affiliates. Possibilities include regional forays in addition to their annual foray, pursuit of educational grants, and sharing Zoom presentations with affiliates. More information about NAMA and how to join can be found here: https://namyco.org/join.php. NAMA provides discounted memberships to individuals who are members of affiliated clubs.

NATS member David Pilz is our liaison with NAMA.If you are interested in more information about NAMA or want to receive e-copies of their newsletter, please contact him at **fungalforest@pilzwald.com**

NATS ZOOM Speaker Meeting Refresher

Your virtuous patience and virtual attendance as we navigate difficulties presented by the ongoing pandemic are deeply appreciated. And we don't want to miss anyone. If Zoom seems a mystery, you are certainly not alone! Direct your questions to NATrufflingsociety@gmail.com.

For the foreseeable future, NATS monthly speaker meetings will continue via Zoom. Meetings consist of two sessions. The first, at 7:00 pm, is the NATS business meeting. Anyone interested is welcome to attend. If this content is of no interest to you, simply tune in to the speaker portion of the meeting which follows at 7:30 pm. The speaker will be introduced, fascinate us with their subject material, and linger for follow-up questions/discussions. In an effort to keep meetings short, speakers will present for 40 minutes or less. Members will be able to interact with audio or through the Zoom chat.

When you receive your monthly NATS email about upcoming meetings, you will be asked to send an email to NATrufflingsociety@gmail.com if you would like to receive an invitation to that month's Zoom meeting. Our meetings are hosted through Oregon State University, and we will be very sure to keep them securely password protected to avoid uninvited guests.

Want to share your Zoom meeting invite with an interested non-NATS member?

Don't forget to let us know their name and email address so we will allow them into the meeting!

NATS iNaturalist Submission Process

If you have a specimen that you think should be accessioned, be sure to dry the truffles to prevent rot (see https://fundis.org/sequence/collect-dry/dry-your-specimens), and please email NATrufflingSociety@gmail.com to learn if we can accept your specimens.

Additional information fields are provided to record your observations on iNaturalist. Such information is often crucial for specimen identification, so if possible, please include:

Collector's (real) name for the specimen label
Elevation*

Slope*

Overstory/understory trees & shrubs (scientific name preferred)

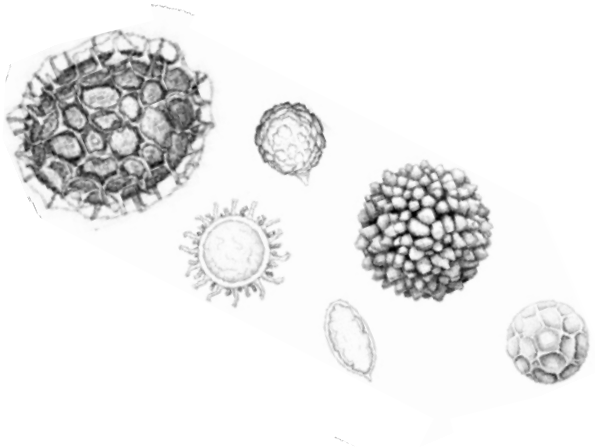
Substrate (moss, mineral soil, soil, wood, or litter)

Fresh notes such as colors and odor (using the notes section on iNaturalist)

*Estimates of these data are acceptable, however, **PLEASE** denote such instances.

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

DUE TO COVID19, please hold onto your specimens and we will post a new mailing address when we are able to work in the lab again!

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+