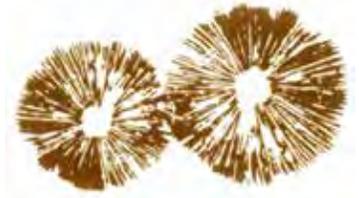


SPORE PRINTS

BULLETIN OF THE PUGET SOUND MYCOLOGICAL SOCIETY
Number 498 January 2014



COOKIE BASH REHASH

Miltan Tam

About 150 PSMS members and their guests gathered on December 10 for our famous “Cookie Bash,” an annual holiday season event hosted by your Board of Trustees. Tables were festively decorated with fir boughs, holly, and tinsel, and our membership came through with a grand assortment of casseroles, hors d’oeuvres, treats, baked goods, and desserts (yes, cookies!) to share. Special thanks go to Sara Nelson of the Fremont Brewing Company, who once again was kind enough to provide a half keg of Interurban IPA, which was enjoyed by all our beer-ophiles in attendance.

The Vice President’s award for Outstanding Fungal Fashion went to Lynn Phillips, who appeared appropriately dressed in her best fungal-themed outfit that included jewelry, clothing, and hat.

Five members released their inner Myco-angelos and provided entries for the edible art contest. With the winners selected by popular vote, Beanne Hull took first prize with her Fairy Ring

Spice Cake. Other entries included an apple spice spore print cake, springerle cookies, and candy cap treats. It didn’t take long for the prize-winning goodies to be consumed after the judging was over!

There were lots of door prizes for all, with many books from our library up for grabs and, thanks to Ed Sakai, a selection of festively wrapped surprise bags.

We were fortunate to have Langdon Cook, author of *The Mushroom Hunters*, as our speaker for the evening. He kept his audience’s attention with his fascinating first-hand experiences traveling up and down the West Coast, hunting mushrooms with professional foragers, exploring their field camps, and probing into their hardscrabble lives.

Special thanks go out to all the Board members and friends who helped in setting up the event and taking down the decorations at the end of the evening.

Cookie Bash 2013

[All photos by Marian Maxwell.]



Spore Prints

is published monthly, September through June by the

PUGET SOUND MYCOLOGICAL SOCIETY

Center for Urban Horticulture, Box 354115
University of Washington, Seattle, Washington 98195
(206) 522-6031 <http://www.psms.org>

OFFICERS: Marian Maxwell, President²⁰¹²⁻²⁰¹⁵
president@psms.org (425) 235-8557
Milton Tam, Vice President²⁰¹³⁻²⁰¹⁴
miltontam@aol.com (206) 525-9556
John Goldman, Treasurer²⁰¹²⁻²⁰¹⁴
treasurer@psms.org (206) 933-0838
Denise Banaszewski, Secretary²⁰¹³⁻²⁰¹⁵

TRUSTEES: 2012-2014:
Nick Herschberger, Larry Lee,
Debra Lehrberger, Danny Miller,
Ed Sakai
2013-2015:
Luise Asif, Teddy Basladynski,
Jon Hall, Andrea Rose,
Reba Tam

ALTERNATE: Brady Raymond

SCI. ADVISOR: Dr. Steve Trudell

EDITOR: Agnes A. Sieger, 271 Harmony Lane,
Port Angeles, WA 98362
sieger@att.net

Annual dues: single or family **\$30**; full-time students **\$20**

MEMBERSHIP MEETING

Tuesday, January 14, 2014, at 7:30 pm at the Center for Urban Horticulture, 3501 NE 41st Street, Seattle.

Our first speaker of the new year is Dr. Erica Cline, a forest ecologist and mycologist. She will be speaking on “Toxic metals uptake by edible wild mushrooms: Why it happens and which species to avoid.” So if you are thinking about eating those morels that you found on the median strip of that busy street, you will definitely want to hear this talk. Dr. Cline received a degree in Biology from the University of Puget Sound, her M.S. in Cell Biology from the University of Leiden in the Netherlands, and her Ph.D. in Forest Resources from the University of Washington in 2004. Her research interests include the impacts of metals in forests locally and in the Appalachian mountains; the role of mycorrhizal fungi in forest restoration at the Elwha river; and, working with area schools and universities, the use DNA sequencing to identify market substitution of farmed Atlantic salmon for Pacific salmon in stores and restaurants.



Dr. Erica Cline

Dr. Cline is Associate Professor and Chair of Quantitative and Environmental Science and Studies, Interdisciplinary Arts and Sciences, at the University of Washington Tacoma. Before coming to UW Tacoma, she was a post-doctoral researcher in the Systematic Botany and Mycology Lab of the USDA Agricultural Research Service in Beltsville, Maryland, working on the nomenclature and taxonomy of invasive plant pathogens. Prior to that, she studied the effects of forest harvesting on ectomycorrhizal fungi of Douglas fir.

Will everyone with last names ending in A–K please bring a plate of goodies to share after the presentation.

CALENDAR

- Jan. 14 Membership Meeting, 7:30 pm, CUH
- Jan. 20 Board Meeting, 7:30 pm, CUH Board Room
- Jan. 21 *Spore Prints* deadline
- Feb. 11 Membership Meeting, 7:30 pm, CUH

BOARD NEWS

Nicholas Herschberger

Treasurer’s Report: A few items from both expense and income were left over from last month’s Wild Mushroom Show and appeared this month, but mostly everything was normal.

Scholarship: The Board finalized the vote to give \$2000 to the Fungus Federation of Santa Cruz (for the same fungal DNA sequencing project mentioned for the past several months) with the stipulations that the money be earmarked for this particular project and that we see an expenditure report at the end.

North American Mycological Association: The NAMA budget committee came up with a tentative budget plan that will be sent to NAMA. The next planning meeting is January 13, 7:00 pm. Top priorities are budget and planning foray sites. Please contact the Board if interested in being part of this or any NAMA committee.

Survivors’ Banquet: The Board is close to finalizing venue selection, pricing, and date. This year’s event will be a break from our usual potluck. It will be catered at a nice venue. The Board is paying for most of the bill, but there will be a small per person charge to offset the total cost. We will let you know when we have more information.

SPRINGERLIE MOLDS

Randy Richardson

There was some interest at the December “Cookie Bash” in more information about where the springerlie cookie molds came from, and how to get such successful results. PSMS member Eve Keller (my partner, same membership) has a family history steeped in making springerlies. She has perfected the technique, and would be happy to share those tricks with anyone interested. The molds can be purchased at the website <http://houseonthehill.net/>.



PRESIDENT’S MESSAGE

Marian Maxwell

Happy New Year! Here we are in 2014—can you believe it? I wonder whether the small group that started PSMS so many years ago in 1964 thought that we would still be going 50 years later.

We have an exciting year planned. We are hosting the North American Mycological Association this coming fall from October 9–12. This foray will be the Patrice Benson Memorial Foray. Patrice was involved in both clubs and was known and loved by many people across the US. She had been the one to petition PSMS to host the foray for NAMA. If she were still with us, she would be at the planning meetings with her sleeves rolled up! If you are interested in helping with this event please contact us. You can email me at

cont. on page 7

THE NEWTON NM1: A PORTABLE MICROSCOPE WITH A GREAT POTENTIAL FOR MYCOLOGISTS

Geoffrey Kibby

Field Mycology, June 23, 2013, page 82
(reprinted by permission)

Two years ago fellow mycologist Don McNeil told me of a new portable microscope which was in development by the Millennium Health Microscope Foundation. It was going to be called the Newton and was being designed for use in the study of tropical diseases in countries where full-sized microscopes were too expensive or required mains electricity which was not always available in the field.

I expressed an interest and started to monitor their website. Two years went by and still it said "In development...". Finally, this year the microscope was released after extensive and very successful field trials and Don soon acquired units for both of us. What follows is my experience and thoughts after using the microscope for some weeks.

History

The Newton design team were inspired by, and based many of their ideas on, the old and sadly no longer manufactured McArthur portable microscope, which many mycologists may be familiar with. That microscope, although of an extremely high standard, was too expensive for widespread use in countries such as Africa, India, etc., and production had in any case ceased after its designer Dr. John McArthur died in 1996.

The Newton team's aim was to produce a microscope of comparable high quality and ease of use, that could be powered by standard batteries and would be in a price range government institutions could afford.

Following investment and funding by a number of agencies the research and development plus field trials have finally been completed. For a more complete history of the design and development see www.millennium-microscope.org.

Design

The biggest challenge with any portable microscope is of course to reduce the size of the instrument and this is achieved in this case by bouncing the light path backwards and forwards using a series of highly reflective mirrors. Cambridge Optronics, one of the distributors of the microscope, have an excellent visual of this on their website www.cambridgeoptronics.com.

By this method the entire microscope was squeezed into a unit a mere 154 mm long, 122 mm wide and 66 mm high (Fig. 1) and weighing just 480 g in its basic form! The body is made of what feels like strong, polycarbonate plastic and the whole unit has a very high quality, precision feel about it. Three objective lenses may be fitted from a choice of $\times 10$, $\times 40$, $\times 60$ and $\times 100$, the latter being an oil-immersion lens. The lenses are switched in operation by turning a wheel on the underside of the unit. Different eyepieces from $\times 10$ to $\times 16$ are available including the option of a 100 division measuring graticule.



Fig. 1. The Newton microscope with optional mechanical stage fitted.

Results

The basic model comes with slide retaining clips but an optional mechanical stage is available and highly recommended for ease of use, especially at the higher magnifications.

Light is provided by a tiny LED light on a movable arm (arrowed in Fig. 1) and this is fadeable by turning a wheel. In practice the lowest power was sufficient for most uses. Power is provided by 3 AAA batteries or by plugging it into a computer or other USB power source using the cable provided. The LED is very efficient and stated figures suggest a battery life of 300 hours at full power—remarkable if true!

The whole kit comes in a very nice case with a shock-absorbing foam interior and this allows the user to cut out extra slots to add additional items such as slides, droppers, etc.

Other available options include an adaptor to attach a mobile phone to act both as a screen and as a camera. You can also fit a USB-powered video camera which replaces the eyepiece and enables live images to be shown on a laptop computer. Fig. 2 shows some *Cortinarius* spores taken via my iPhone—pretty impressive.



Fig. 2. Spores of *Cortinarius rufo-olivaceus* photographed at $\times 1000$ using an iPhone attached to the eyepiece. Contrast enhanced in software.

The microscope is easily used handheld or can be mounted on a small tripod for longer use. The focusing wheel is rather small and difficult to control under high power; an additional, larger clip-on wheel is available and should definitely be purchased.

As the microscope uses an inverted system with the objectives below the slide, the slide and cover slip must be inserted upside down also. This is tricky but gets easier with practice. When using the $\times 100$ oil-immersion lens I find it easier to put the oil on the lens and then raise it up to touch the coverslip having first positioned the mechanical stage into the correct position.

I find the microscope easy to use, giving very high quality images for such small lenses. The click stops for the three objectives could be made more obvious and secure—it is sometimes difficult to be sure the lens is positioned correctly and this is something the manufacturer should address.

The light source is very bright indeed and often it is best raised slightly to reduce the light or you can tape a piece of tissue over it to reduce the power even more.

The price of the basic NM1-400 unit is about £400, and of the NM1-1000 with the mechanical stage and high power lenses around £600. For prices of the optional extras see the websites of either Cambridge Optronics or GX Optical (www.gxoptical.com).

For a powerful, well-made microscope at a great price, to easily carry to forays etc. or even use in the field you need look no further than this amazing unit. I wish the company every success with this remarkable product.

Coprinus

*A mushroom that's edible, yes,
But only if young. Don't suppress
Your quite natural shyness
To collect the Coprinus
Once it looks like a black liquid mess*



—PGS

TRUFFLES ON POSTAGE STAMPS

©Brian S. Luther

Even though thousands of postage stamps with fungi have been issued worldwide, only a handful showing truffles from relatively few countries have ever been produced. Surprisingly, neither France or Italy have issued any stamps with truffles, so far. In my continuing effort to research and provide new and interesting information related to mycophilately (i.e., postage stamps illustrated with fungi), I offer this article for your perusal.

For this article I'm using the term "truffles" in the same way as Trappe et al. (2007), i.e., I include Basidiomycete false truffles as well. However, unlike the publication just mentioned, I have excluded species of the Gastromycete genus *Scleroderma* and the pezizoid genus *Sarcosphaera* in this listing.

European and North American truffles clearly have been the focus of most of the information relating to truffles, but there's also a long history of their use elsewhere. Truffles have been gathered and eaten by peoples in Africa and adjacent middle-eastern Asian regions far longer than in Europe. Most of the European edible truffles are in the genera *Tuber* or *Leucangium*, but in Africa and the middle-east, the Desert Truffles as they're called are mostly in several different genera: *Terfezia*, *Tirmania*, *Kalaharituber*, *Picoa*, *Delastria*, and *Loculotuber* (Hall et al., 2007).

In the table below I've listed all truffles that appear on worldwide postage stamps or in the border of official postage that I'm aware of at this time. Of course, more truffle issues can be anticipated in the future. All catalog numbers are from the Scott Postage Stamp Catalogues. s/s=souvenir sheet. FDC=first day cover (envelope with the stamps cancelled on the first day of issue, along with a colorful envelope illustration or cachet). Some entries do not have Scott numbers assigned yet or that information was not available to me at this time. All of these individual stamps are part of larger sets, but I have not listed the catalog numbers for the complete sets.

Truffles on Stamps (arranged chronologically)

Country	Issue Date	Cat. #	Species
Kuwait	1/25/1983	906i	<i>Terfezia arenaria</i>
Algeria	7/21/1983	719	<i>Terfezia leonis</i>
Djibouti	4/16/1987	627	<i>Terfezia boudieri</i>
Andorra	4/30/1996	238	<i>Tuber melanosporum</i>
Chad	6/20/1998	771Uw	<i>Tuber aestivum</i>
"	"	771Ux	<i>T. melanosporum</i>
"	"	771Uaa	" <i>Choeromyces meandriformis</i> "
Papua New Guinea	5/18/2005	1177	<i>Melanogaster ambiguus</i>
Ivory Coast	2009	?	<i>Tuber aestivum</i>
Congo Rep.	2011	?	<i>Tuber melanosporum</i>
Ivory Coast	2012	?	Unidentified truffle, cut in half
Croatia	2013	?	<i>Tuber melanosporum</i> , <i>T. magnatum</i>



Kuwait, Scott 906i, *Terfezia arenaria*.



Algeria, Scott 719, *Terfezia leonis*.



Djibouti, Scott 627. *Terfezia boudieri*.



Andorra, Scott 238. *Tuber melanosporum*.



Chad, (1998) sheet, *Les Truffles et Les Morilles*.



Papua New Guinea, Scott 1177. *Melanogaster ambiguus*.



Ivory Coast (2009), full sheet.



Ivory Coast (2009). Close up of truffle stamp.

Congo Rep. (2011), s/s with *Tuber melanosporum* in lower margin.



Ivory Coast (2012). Stamp souvenir sheet with truffle cut in half in lower right-hand corner of margin.



Croatia (2013). *Tuber melanosporum* & *T. magnatum*.



Early 1900s German advertising card (Edible Fungi). Man hunting truffles with his dog. Kuenzer & Co., Freiburg. Card was a gift when you made a purchase.



Gnomes drying truffles. Early 1900s German Cinderella (Richard Held, Leipzig) gift found on a margarine block.

[All photos by Brian S. Luther.]

Comments

As you can see from my list, the first country to issue a postage stamp showing a truffle was Kuwait, and traditionally people there harvest large quantities of Desert Truffles for human consumption. This stamp is part of a large rare set of 50 desert plants and fungi from Kuwait, and unfortunately none are labeled with scientific names. According to Gerlinger (1991) this stamp shows *Terfezia leonis*, but Gimeno (1999–2000) lists it as *Terfezia arenaria*. From the characteristics observable on the stamp, I have to agree with Gimeno.

The Djibouti stamp was also issued as a rare imperforate (imperf.) set lacking stamp perforations and as a beautiful collective sheet showing all three stamps in the set with an overall scene.

The small nation of Andorra, located in the Pyrenees between France and Spain, was the first European country to issue a truffle stamp.

The scientific name on Chad 771Uaa is misspelled and should read *Choiromyces*, not “*Choeromyces*.” Also, the two species of *Tuber* shown in the same Chad set and *T. aestivum* on the 2009 Ivory Coast stamp are not normally found in Africa. It’s quite common for African countries to use European fungus species on mushroom stamps, especially if it was a former colony, and historically Chad was under French colonial rule. It seems ridiculous that a former French colony in Africa would issue stamps showing European truffles, even before France itself issued any.

The Papua New Guinea stamp illustrates the only Basidiomycete false truffle in my listing. Even though *Melanogaster* is the main and labeled illustration, the left background of the stamp clearly shows what appear to be Gypsy mushrooms (*Cortinarius caperatus*, formerly *Rozites*) as well. The 2005 Annual Pack issued by the Papua New Guinea post office also has additional info on the stamps in this set.

In 2011 the Congo Republic issued a s/s with three mushroom stamps but also showing different fungi on the border outside of the stamps themselves. *Tuber melanosporum* is shown on the bottom left selvage as a whole truffle and sectioned. This species does not occur in the Congo (refer to comments under the Chad set above).

The 2012 Ivory Coast issues do not show the truffle on a stamp, but rather only on the lower right border or selvage of the s/s. These come in two s/s and stamp designs: one with four rectangular stamps and one with a single triangular stamp (shown here). Both have the same fungi in the border and feature famous mycologists.

The newly issued Croatia (Hrvatska) set also comes on a handsome sheet of 12 (with two other fungi, four each); the selvage of this sheet has mushrooms on it too, making it very collectible. This set comes as a presentation pack as well, which also shows truffles in the first-day cancel. The Piedmont White Truffle (*Tuber magnatum*) is one of two species illustrated on this Croatian stamp. This is the most valuable truffle known (by weight) and is endemic to the Piedmont area of Italy, Croatia, Slovenia, southern France, Switzerland, Hungary, and Bosnia. This species has a very strong aroma, which apparently is unforgettable (Renowden, 2005), and it should be eaten fresh, never cooked (Luard, 2006).

Colorful FDCs have also been issued for some of these stamps. In addition to the postage listed above, there are some regional, limited-edition postal covers (envelopes) and cancels from France with truffles. In particular I have in my collection a 10 envelope set of lovely and different French truffle cachets relating to gastronomy (not shown here). There are also old postcards (from the early part of the 20th Century) with people hunting truffles with pigs and dogs, colorful advertising cards (trade cards), and Cinderellas featuring truffles that I actively collect (to get an idea of some of the other myco-paper ephemera items I list in the Cinderella category, see Luther, 2012). Even though these are not stamps, I’m showing you a couple of examples here because they’re pertinent to the subject discussed and very attractive.

For further reading on the fascinating subject of truffles and their interactions with forests and animals, please read the review I did of a very applicable book (Luther, 2009a). If you’re interested in learning how flies can be used to locate truffles, refer to Luther (2009b).

References

Gerlinger, G. P. 1991. *Champignons & Mycologie en Philatelie*. 5th ed. Privately published, 153 pp.

cont. on p. 6

Truffle stamps, cont. from p. 5

Jimeno, Jordi Domingo. 1999–2000. *Setas, Mushrooms, Champignons, Pilze, Funghi. Domfil Thematic Stamp Catalogue*. 2nd ed. Barcelona, 258 pp. In Spanish and English.

Hall, Ian R., Gordon T. Brown & Alessandra Zambonelli. 2007. *Taming the Truffle—The History, Lore, and Science of the Ultimate Mushroom*. Timber Press, Portland, OR. 304 pp.

Luard, Elisabeth. 2006. *Truffles*. Frances Lincoln Ltd., London. 176 pp.

Luther, Brian. 2009a. Book review: *Trees, Truffles and Beasts: How Forests Function*. *Spore Prints* 454 (Sept.), p. 4. On-line and in color at psms.org.

Luther, Brian. 2009b. "Hunting truffles with flies." *Spore Prints* 455 (Oct.), pp. 1 & 4. On-line and in color at psms.org.

Luther, Brian S. 2012. "An introduction to fungus-illustrated Cinderellas." *Spore Prints* 486 (Nov.), pp. 6–7. On-line and in color at psms.org.

Renowden, Gareth. 2005. *The Truffle Book*. Limestone Hills Publ., Amberley, NZ. 148 pp.

Trappe, Matt, Frank Evans & James Trappe. 2007. *Field Guide to North American Truffles*. Ten Speed Press, Berkeley. 136 pp.

THANK YOU

Marian Maxwell

Thank you to all the people in PSMS who have given from their personal time this year to make our club run as smoothly as possible! Thank you to all the Board members; to Luise, Brenda, and Reba for the Hospitality; to our educators and/or Iders; Brian, Danny, Steve, Daniel, Wren, Pacita, Alissa, Noah, Kim, Larry, Adrian, Marilyn, Josh, Stuart, Jerry, and Cathy; to our Book Sales Committee, John, Cathy, and Andrea; to our Membership chair Ann; to our webmasters, Evelyn and Teddy; to Sherwood for keeping our harvesting rules document current; to our Field Trip and Field Trip Hosting chairs, Brian and Debra; to all the people who hosted field trips this last year; to the leaders who took people out on the field trips; to our wonderful newsletter editor and assistant Agnes and Dick; to our back up editor Ron Post; to the Show chairs Milt and Randy and all the committee people who worked on the show; to Lisa for all of her help with graphics and posters throughout the year; to Danny our Librarian (who revamped the system); to Pacita and Teddy for spearheading the NAMA hosting foray; to Paul for planning the Photography Committee events; to Milt and James for the cultivation activities; to Reba for researching and planning the coming Survivors' Banquet; to Milt for the programs for the meetings; to Denise and John for your help in reviewing contracts and documents; to John for your countless hours as Treasurer; to Danny and Brian for taking the helm with the ID clinics coordination after we lost Hildegard (Danny took the Education Committee the summer before when Patrice passed away as well). Thank you to Milton, Reba, Andrea, and John for taking quite a bit of time and visiting potential sites for the NAMA foray and other PSMS events. If I have not thanked you specifically on this list, please excuse me. We appreciate all the time and effort that everyone who volunteers puts in.

One thing to consider is, if everyone on this list did not volunteer their time, where would PSMS be? You will notice that many people are listed two, three, or four times. We always need new people to volunteer to ensure that we don't burn out the long-time volunteers. There should always be two or three people who are familiar with a job so that they can take it over if a volunteer can't manage for health, job, or other reasons. We have a fair number of people who are willing to give a few hours (as in the show),

and that lightens the load and helps out tremendously! We need a few people who are willing to step forward in a leadership role (committee chair or board of trustees member) on a more consistent basis. Be bold, seize the day, and come forward and volunteer. You have a great bunch of people with which to work!

PHOTO WALK #2, NOV. 16, 2013, LINCOLN PARK, WEST SEATTLE

Paul Hill

The second PSMS mushroom photo walk of 2013 was scheduled for November 16. To keep it interesting we varied the location. This time I picked Lincoln Park in West Seattle. Starting with a class size of 20 we had a smaller showing after a surprising number of cancellations and a total class size of 20. Even with the spectacular 2013 fall season we'd been having, it being at the end of the season, I was still worried there wouldn't be much to photograph. I was also worrying we'd be walking around in the rain getting our cameras all wet. I need to stop worrying, because all those folks with their eyes on the ground were able to find plenty of mushrooms to use as subjects for photography, and the weather started out cloudy and continued to brighten as the morning progressed.

D. Miller



While everyone enjoyed some cookies and coffee, including a local squirrel, I gave an introduction to some of the challenges of photographing little things in the dark and overcast forest including some discussion of depth of field, shutter speed, and "film" (sensor) speed. Eventually, everyone started to

mill around to stay warm, letting me know it was time to start looking for mushrooms.

We didn't get far before we found various mushrooms. Many folks tried to get photos of *Dacrymyces palmatus* (Orange Jelly) on its typical habitat on a stump. Before I had really been wandering more than 15 minutes, I had to run back to the table where we had our classroom session, because the crows were working on breaking into the boxes containing the snacks, but various folks wandered around to find other subjects in the various microclimates and mini-habitats of the park.

Photo subjects included a couple of *Russula* species. Some *Inocybe* showed some real character with their radial cracking while *Pleurocybella porrigens* (Angel Wings) provided a nice contrast of white mixed in with the green of the ground plants and the brown of the forest. Various other subjects included *Trametes versicolor* (Turkey Tail) on the logs, some *Hygrocybe flavescens* (Yellow Waxcaps), *Laccaria amethystio-occidentalis*, and other mushrooms hidden in the brush in this not-very-wild, but mixed-habitat park. Someone even spotted a chanterelle. We had several folks with very fancy cameras, with Nikon being the big team in attendance that day, but there was certainly a wide selection of cameras. Irwin Kleinman kidded everyone with the fancy equipment by taking some nice pictures with his iPad!

We had a brief crisis as we packed up when I thought my keys had disappeared, but they



©2013 Paul Hill

were not actually lost. We returned to the parking lot to find a lovely deep red *Amanita muscaria* right near my car standing in the grass along the sidewalk, which delayed several of us from a quick departure as we took even more photos.

After others left, I returned to locate and photograph some large *Helvella* “*lacunosa*” others had reported. (For the reason “*lacunosa*” is in quotes, see the following article.).

NEW *HELVELLA* SPECIES DESCRIPTION BRINGS A COUPLE OF NEW MUSHROOM NAMES TO THE PUGET SOUND REGION

Paul Hill

A DNA study (Nguyen et al., 2013) published just this past spring revealed that the *Helvellas* with the flutes and holes in their stipes and the irregular bumpy caps that we all call *Helvella lacunosa* are significantly different genetically from the *H. lacunosa* of Europe and warrant different species names. In fact, the researchers definitely identified two species on the West Coast of North America. Because of small sample sizes they didn’t want to name any others, but there also appear to be other species including (at least) two more in Western North America, and there is evidence for three more species in Mexico. One of the points to take from this research is that everything they tested from west of the Rockies did not match the European *Helvella lacunosa* even though the similar looking mushroom in Eastern North America did match. Thus like other populations, we seem to have our own special species out here in the west.



©2013 Paul Hill

Helvella vespertina.

One newly recognized species, *Helvella vespertina* (*vespertina* = evening; “western, where the sun sets”) can be significantly larger than the European *H. lacunosa* (sometimes 250 mm, almost 10 in.!), with a variable cap-surface color ranging from dark gray to nearly white. It is ectomycorrhizal with conifers; it

fruits generally October to January. It has been located in British Columbia, California, Oregon, and Idaho. The known locations for this particular species surround Puget Sound, so we’ll assume it should be found in our area too.

The other newly named species is *Helvella dryophila* (*dryophila* = (Gk) Oak loving) and is apparently more like a typical *H. lacunosa* in size, with a noticeable contrast between the very dark cap and light stem. This should make for nice photographs. Its cap is listed as up to 2” high (15–45 mm) with a stem up to 3” (75 mm). As you might guess from the derivation of its name it is ectomycorrhizal with *Quercus* (oak) of which there are many types in California. Currently known from southern Oregon to southern California, it fruits later than *H. vespertina*; the study listed it as mid-December through late May (May for higher elevations).



©2013 Paul Hill

With its dark top and light stem, is this *Helvella* the newly named *Helvella dryophila*? Maybe.

As I learned from Brian Luther only this past year, we only have one kind of oak native to Washington. It is common in the prairies of the south Puget Sound, in some areas in eastern Washington, and occurs here and there in other areas around the Sound. If you look closely you can find some in Seward Park and occasionally in

other similar locations near Seattle. The oak association is probably not going to help many of us see this mushroom, unless we run down near Joint Base Lewis McChord and look around in the oak groves, but there is another possibility. The study recorded it as an ectomycorrhizal associate with Madrone (*Arbutus menziesii*). Its DNA was found on roots of the Madrone during testing, but it was not seen fruiting. The Pacific Madrone or Madrona tree is very common along bluffs and other exposed places around the Sound, on the greater Salish Sea up into Canada, and down the Pacific coast into California. The Madrona is the tree that gives the name to the Madrona neighborhood on Lake Washington, but also is the tree noted by an early sailer as something like a Magnolia, providing the name for another Seattle neighborhood. Since the tree is common enough, this particular variation of *Helvella* just might occur in our area.

Of course, if you don’t want to rush in so quickly to learn new names, because like me you don’t know enough of the old ones, you can refer to all the *Helvella lacunosa*-like mushrooms west of the Rocky Mountains as a clade or group. After all, the paper named just two of them, but said there were even more, so the naming game isn’t over yet.

Reference

Nguyen, NH, et al. 2013. “The *Helvella lacunosa* species complex in western North America: cryptic species, misapplied names and parasites.” *Mycologia*. 105(5) [Sept–Oct]: 1275–86. doi: 10.3852/12-391. Epub 2013 May 24.

President’s Message, cont. from page 2

president@psms.org or you can contact Pacita Roberts or Teddy Basladynski who are both in our member’s roster. We will continue to have our Hildegard Hendrickson ID clinics when the Spring mushroom season begins, sometime in late April or early May.

Participants enjoyed our two new 201A ID classes with Dr. Steve Trudell. This coming Spring we will offer a 201B ID class. In addition, another cultivation seminar will be offered. Details regarding these classes will be posted on line under events. We will also announce them on the yahoo PSMS members’ group list, in *Spore Prints*, and at meetings.

Our election is coming up in February! We need a member of the general membership to step forward and serve on the nominating team. We especially need some candidates for the board! Now is your chance to find out how things work at PSMS. Our board meetings are once a month from 7:30–9:30 pm. We do not meet in July. I am proud of our board and enjoy working with them. People who give of their time and contribute to an organization are the salt of that organization—they enhance it and give meaning to it. We will be electing a vice-president, treasurer, and five board members. In addition we hope to have enough candidates to have two or three alternates for the board. These alternates would replace anyone who had to leave because of work or health issues or if they move away. Please have someone’s permission before nominating them. If you can think of a great candidate for the board please contact either Milton Tam, Luise Asif, or Jon Hall. We close the election slate to nominations at the end of the January meeting.

We are seeking a chair for our Mycophagy Committee and our Ecology/Sustainability Committee. If you want to do this or if you

cont. on page 8

President's Message, cont. from page 7

know of a good candidate please contact me. There has been a lot of interest in a Mycophagy Committee. This could be exploring various recipes, having cooking demonstrations, holding dinner parties, etc. The Sustainability and Ecology chair would be someone who is interested in various political issues and would investigate and keep us informed on pertinent issues that may affect PSMS as a group.

When was the last time that you volunteered in our group? Have you ever run for office or a board position? If you would like to do this but have concerns or questions, please call me at 425-235-8557 and we can talk. If you prefer to communicate by email you can contact me at president@psms.org.

NELSON MANDELA ON A MUSHROOM STAMP

Brian S. Luther

With the passing of the great Nelson Mandela in early December, I thought you might like to see a mushroom stamp souvenir sheet that was issued by the Congo Republic in 2009. The unlikely association of fungi and a renowned world statesman was designed to result in greater sales.



Brian S. Luther

APPLE SPICE RING

Beanne Hull

from the *Laurel's Kitchen* cookbook

Winner of the December "Cookie Bash" edible art contest

- 2½ cups grated apple, peeled and cored first
- 2 cups raisins
- 1½ cups boiling water
- 3 tablespoons oil
- 1 cup + 2 tablespoons honey
- 1½ teaspoons cinnamon
- 1½ teaspoons allspice
- ½ teaspoon cloves
- 1½ teaspoons salt
- 3 cups whole-wheat pastry flour
- 1½ teaspoons baking soda
- ¾ cup chopped walnuts

Preheat oven to 350°F

Pour boiling water over apples and raisins. Top with oil and let stand 10 minutes. Add honey, spices, and salt, then allow to cool.

Sift together flour and baking soda, add walnuts, and then combine with other ingredients. Pour into a well-greased ring pan (or 8" × 8" pan or two 4" × 8" loaf pans).

Bake for 45 minutes to an hour.



M. Maxwell



B. Hull

Here's to a Happy New Year!



Non-Profit Org.
U.S. POSTAGE
PAID
SEATTLE, WA
PERMIT NO. 6545

RETURN SERVICE REQUESTED

Puget Sound Mycological Society
Center for Urban Horticulture
Box 354115, University of Washington
Seattle, Washington 98195

