



Ohio Mushroom Society

The Mushroom Log

Report on Summer Foray July 15-16

Summer Foray 2017

By Martha Bishop

This year our Summer Foray was held at the Zaleski ODNR Complex near Zaleski Ohio. This fine facility has been recently renovated from an old CCC camp, and is located a few miles from Lake Hope State Park in Vinton County. We would like to extend special thanks to the Division of Mineral Resource Management at the ODNR for hosting us there. We were very grateful that several members of the staff including Jayne Callahan, Ben McCament, and Eugene Hancock gave us preview tours of the facility. Thanks to Eugene for creating a map of the nearby trails and

helping us arrange furniture and equipment to make our foray a success. It was wonderful that Jayne Callahan and Lee Sorrell at ODNR assigned intern Eugene Hancock to help us with planning and to help us with use of the facility for the entire weekend! OMS member Glenn Kotnik lent us his expertise in knowledge of the local trails and arrived several days early to preview the trails for our hikes. The foray was well attended, with registrars Laura Wilson and Bryan Lewis recording 50 members including several new ones in attendance.

Our featured Identifiers Walt Sturgeon and John Plischke were kept very busy by the plethora of mushrooms that we collected. After a few good rains following a month of dry weather, the group was able to collect and name 173 species including a few that were

rare finds for the area. John Plischke spoke Saturday afternoon on the topic of edible mushrooms, illustrating his talk with many beautiful and informative photographs, and sharing the extensive knowledge he has gathered over many years. He and Kim Plischke generously provided printouts of a number of sumptuous sounding recipes as well. After an enlightening review by Walt Sturgeon of the day's fungal collections, we proceeded to Lake Hope Lodge on Saturday evening. Thirty of us enjoyed a delightful dinner featuring fresh local food and brews. Many members commented on the beauty of the newly rebuilt lodge, and those who stayed in the Lake Hope cabins also had favorable reviews of the facilities.

We enjoyed two opportunities to hike on Saturday and another on Sunday, collecting on

trails in the Zaleski State Forest as well as trails at Lake Hope State Park. Shirley McClelland provided the hospitality for us, ensuring that there was plenty of coffee and yummy breakfast fare. Debra Shankland and Shirley worked hard to assure that the breakfasts and potluck lunch were as great a success as ever, and both led cleanup efforts. Thanks to everyone who brought delicious dishes and who helped with set up, registration, hospitality, ID, and clean up! Many hands make light work, and it's great that we can all pitch in to make our forays educational and fun!!!



Martha with a nice find
Blue Rock

Summer Species List

Agaricus auricolor
Agaricus sp.
Amanita amerimusvcaria
Amanita banningiana
Amanita bisporigera
Amanita brunescens var. pallida
Amanita citrina var. lavendula
Amanita cothurnata
Amanita daucipes
Amanita farinosa
Amanita flavoconia
Amanita jacksonii
Amanita longipes
Amanita muscaria var. guessowii
Amanita onusta
Amanita parcivolvata
Amanita rhopalopus

Amanita rubescens
Amanita section vaginatae
Amanita sp.-3
Amanita subcokeri
Amanita vaginata
Amanita vaginata group
Amanita volvata
Arcyria denudata
Artomyces pyxidatus
Aureoboletus innixus
Baorangia bicolor
Boletinellus chrysenteroides
Boletinellus merulioides
 (Pike County)
Boletus chrysenteron
Boletus frostii
Boletus sensibilis
Boletus sp.
Boletus subvelutipes
Byssomerulius incarnates
Calvatia craniformis
Cantharellus appalachiensis
Cantharellus cibarius group
Cantharellus cinnabarinus
Cantharellus lateritius
Cantharellus minor
Cantharellus umbonatus
Clitocybe gibba
Colticia cinnamomeus
Coprinus plicatus
Cordyceps variabilis
Cortinarius albviolacea
Cortinarius corrugatus
Cortinarius distans
Cortinarius sp.
Cortinarius torvus
Craterellus falax
Dacomyces spathulata
Entoloma sinuatum
Entoloma strictus
Entoloma strictus var. isabellinus
Fistulina hepatica
Fomitopsis spraguei
Galiella rufa
Ganoderma applanatum
Gerronema strombodes
Gymnopus confluens
Gymnopus dichrous
Gymnopus subnudus
Gyroporus castaneus
 (Brown County)

Gyroporus castaneus
Hapalopilus nidulans
Helvella lacunosa group
Hohenbuehelia angustatus
Humidicutis marginatus var.
marginatus
Hygrocybe acuticonica
Hygrocybe cantharellus
Hygrocybe marginata
Hygrophoropsis aurantiaca
Hypomyces chrysospern
Hypomyces ochiaceus
Inocybe rimosa
Isaria farinosa
Lactarius argillaceifolius
Lactarius chrysorrheus
Lactarius corrugis
Lactarius deceptivus
Lactarius hygrophoroides
Lactarius luteolus
Lactarius marylandicus
Lactarius piperatus
Lactarius plinthogalus
Lactarius quietus var.
incanus
Lactarius subvellereus var.
distans
Lactarius volemus
Lactarius volemus var. *flavus*
Laetiporus Cincinnatus
Leccinum albillum
Leccinum rugosiceps
Leccinum sp. - 2
Leccinum subglabripes
Leotia lubrica
Lepiota sp.
Leucoagaricus americanus
Leucocprinus cepaestipes
Loeweomyces fractipes
Lycoperdon perlatum
Lyophyllum sp.
Macrolepiota procera
complex
Marasmius delectans
Marasmius nigrodiscus
Marasmius pulcherrima
Marasmius rotula
Marasmius semihirtipe
Marasmius siccus
Marasmius sulivantii
Microstoma floccosa
Mycena leiana

Mycorrhaphium adustum
Neofavolus alveolaris
Oudemansiella radicata
Panellus stipticus
Phaeolus sweinitzii
Phellinus ignarius
Phylloporus leucomycelinus
Phylloporus rhodoxanthus
Pleurotus pulmonarius
Pluteus auranthorugosus
Pluteus cervinus complex
Pluteus chrysophlebius
Pluteus petasatus
Polyporus leptoccephalus
Psathyrella candolleana
Ramaria formosa
Ramaria stricta
Retiboletus ornaticipes
Richenella fibula
Russula ballouii
Russula brevipes var. *acrior*
Russula crustosa
Russula earlii
Russula eccentrica
Russula grata
Russula sp. (several)
Russula variata
Russula vinacea
Sarcoscypha occidentalis
Schizophyllum commune
Scleroderma areolatum
Scleroderma citrinum
Scorias spongiosa
Scutellinia scutellata
Sebacina incrustans
Singerocybe adirondackensis
Sparassis spathularia
Stemonitis sp.
Stemonitis splendens
Stereum complicatum
Stereum ostrea
Stereum striatum
Strobilomyces floccopus (Pike
County)
Tapinella atrotomentosa
Thelophora vialis
Thumenella cubispora
Trametes gibbosa
Trametes versicolor
Tremellodendrum pallidum
Trichaptum bifforme
Tubifera ferruginosa
Turbinellus floccosus (Hocking
County)
Tylopilus badiceps
Tylopilus felleus

Tylopilus plumbviolaceus
Tylopilus rubrobrunneus
Wolfina aurantiopsis
Xanthoconium affine var.
maculosus
Xylaria longipes

Lithuania

Hundreds race to pick mushrooms

Hundreds of Lithuanians ran around with baskets and buckets Saturday in a southeastern pine forest for the national championship of mushroom picking. A rainy, relatively warm summer created ideal conditions for the foraging festival in Lithuania, where forests cover more than 33 percent of the Baltic country and mushroom-hunting is considered the second-most popular sport after basketball.

Reprinted from the September 24 issue of the Cleveland Plain Dealer.

STAPLES OF NEANDERTHAL DIETS UNLOCKED BY LOOKING AT THE GUNK IN THEIR TEETH

By Alan Cooper & Laura Weyrich

Ancient Origins, Mar. 13, 2017

The typical vision of Neanderthals has not been particularly flattering, often featuring a giant club and spear and unfortunate sartorial choices. For years, researchers have worked to overturn this view, albeit with limited evidence.

But new research, published today in *Nature*, provides some of the first nuanced, detailed insights into the everyday lives of Neanderthal.

Sequencing the ancient DNA within preserved dental plaque (calculus) uncovered specific information about Neanderthal diet and health as well as further insights into their interactions, behavior, culture, and knowledge.

Dental calculus preserves ancient DNA from microorganisms, viruses, food, and other biological material that pass through an individual's mouth. This leaves a source of information for DNA scientists to discover thousands of years later.

The Neanderthal Diet and Lifestyle

We examined two Neanderthals from El Sidron cave, Spain, and a Neanderthal from Spy cave in Belgium. We found drastic difference in

their diets that correlated with changes in microbiomes.

The Spy Neanderthal fit the stereotype of a carnivorous, big game hunter, with DNA from woolly rhinoceros and wild mouflon sheep, as well as native mushrooms still eaten in Europe today.

In stark contrast, the two El Sidron Neanderthals showed no evidence of meat in their diet. They were consuming pine nuts, moss, tree bark, diverse mushrooms, and other (likely moldy) herbaceous material.

These truly were paleo diets, consuming what could be foraged and identified in their local environment. For example, Spy cave in Belgium was on the edge of a steppe-like environment of grassy hills and plains, populated with megafauna such as woolly rhinos. In contrast, the El Sidron Neanderthals lived in a dense mountain forest, where pine nuts and mushrooms would have been a major food source.

Neanderthal Food as Medicine

The skeleton of one young male Spanish Neanderthal displayed a nasty dental

abscess. His dental calculus also contained DNA from a serious gastrointestinal parasite (Microsporidia). As a result, it is likely that he was chronically ill.

Surprisingly, our dietary analysis revealed that this Neanderthal was likely treating his illnesses with natural remedies. He had DNA from poplar (whose buds and bark are a natural source of aspirin) and, surprisingly, the mold *Penicillium*, the source of the world's first antibiotic, penicillin.

While *Penicillium* mold is common in the environment, he had clearly been eating rotting vegetation containing several other molds. We did not see this in the other Neanderthals, raising the question of whether Neanderthals were using antibiotics.

This research suggests that Neanderthals maintained an extensive knowledge of treatments for ailments, and as such significantly changes our view of their culture and behavior.

It also shows how the ancient bacteria on teeth now provide us with a completely new window into the behavior of ancient hominids, and the

origin of our own microbiomes. This is the first time specific species have been identified in the Neanderthal diet, and match previous archaeological studies.

Blue Rock State Park Foray with MRWIG

By Sharon Greenberg

On Saturday July 8th the OMS and MRWIG (Muskegon River Wilderness Interest Group) held their 3rd annual joint foray at Blue Rock State park. In the past two years we had gathered during morel season, but this year decided to try a summer foray. Luckily for us, there had been rain in the weeks prior to the foray, and we found a very good selection of different fungi. We had a small but energetic group and everyone went away with some good finds, especially chanterelles. On the minus side, Adam Komar, the forester at Blue Rock, had been called out to fight the wildfires in New Mexico, and wasn't able to be present. Other members of MRWIG stepped up to take his place, and guide us in the right direction in the woods. I am happy to report that Adam is

back on Ohio safe and sound.

Present at the foray were: James Murphy, David Bonifant, Lonelle Yoder, Chris Schreiber, Lori Totman, Timothy Mason, Martha Bishop, and Sharon Greenberg.

A special thanks to Lori Totman for the photos, and Martha Bishop for her mushroom identification expertise. Couldn't have done it without you Martha!

Species list

Gilled fungi

Amanita banningiana
Amanita parcivolvata
Amanita sp.
Cantherellus appalachiensis
Cantharellus cibarius
Cantharellus confluens
Cantharellus minor
Cantharellus lateritius (smooth chanterelle)
Collybia sp.
Galerina autumnalis
Gymnopus (Collybia) dryophilus
Hygrophoropsis aurantiaca
Inocybe sp.
Lactarius hygrophroides
Lactarius sp.
Lactarius volemus
Marasmiellus candidus
Marasmius rotula
Marasminus sullivantii
Megacollybia platyphylla
Paneolus sp.
Paxillus atrotomentosus

Psathyrella sp.
Pleurotus ostreatus
Pluteus atricapillus (cervinus)
Russula parvovirescens
Russula sp. (various)
Schizophyllum sp.

Boletes and other fungi

Boletus auriporus
Boletus hortonii
Boletus sp.
Clavulina cristata
Clavicornia pyxidata
Clavulinopsis aurantio-cinnabarina
Exidia alba
Galiella rufa
Gyroneon (Boletinellus) merulioides
Leotia viscosa
Loweomyces fractipes
Polyporus varius
Sooty mold on aphid "honeydew"
Strobilomyces floccopus
Suillus americanus
Suillus granulatus
Trametes versicolor
Tremellodendron pallidum
Trichaptum bifforme
Tylopilus fellus
Tylopilus plumboviolaceus
Tylopilus rubrobrunneus
Tylopilus violatinctus
Tyromyces chioneus
Xanthoconium sp.
Xylaria sp.

Note: These may not be the most up-to-the-minute proper names. I used *Mushrooms of West Virginia and the Central Appalachians, 2003* for name reference.

Species list for Saturday's foray, 19 August 2017 at Bellwether Farm (Episcopal Diocese of Ohio) in Wakeman, OH led by and submitted Pete Richards

The habitat was riparian woodland along the Vermillion river. The trees were pretty mature mixed oak, beech, hickory, maple, tulip, locust, sycamore and elm.

We saw lots of mushrooms, including many we couldn't identify and a number of older and indistinguishable specimens listed separately below.

Here is the list of things we're more confident we identified, compiled by Bryan Lewis with minor additions by Pete Richards:

1. *Phellinus robiniae*, a conch on dead locust branches (lots of them around)
2. *Stereum ostrea*
3. *Stereum complicatum*
4. *Trametes versicolor*
5. *Marasmius rotula*
6. *Tetraprygos nigripes*

7. *Abortiporus biennis*
8. *Psathyrella foenisecii* (lawn mower's mushroom, in a lawn)
9. *Amanita bisporigera*
10. Jelly #1, probably *Ductifera pululahuana*
11. Jelly #2, maybe witches butter *Tremella lutescens*
12. Jelly #3, wood ears (*Auricularia auricula*)
13. *Oudemansiella radicata* (rooting collybia)
14. *Fistulina hepatica* (beefsteak) !!! I've only ever found this one other time
15. *Omphalotus illudens* (jack o'lantern -- truly huge display)
16. *Polyporus radicata* (rooting polypore)
17. *Trichaptum bifforme*
18. *Phyllotopsis nidulans* (mock oyster, very smelly!)
19. *Daldinia concentrica* (carbon balls, on several tree species)
20. *Hygrocybe cuspidata*
21. *Mycena leaiana* (orange mycena)
22. *Xylaria polymorpha* (dead man's fingers)
23. *Collybia/Gymnopus dryophila*, almost all

- specimens were infected with
24. the jelly *Syzygospora mycetophila* (a brain-like mass on the cap)
 25. *Trametes gibbosa*

A lot of specimens really hard to identify because of age/condition, etc. but identifiable to family or genus:

1. Many different boletes, mostly eaten, water logged and/or rotted
2. Several different types of chanterelles (smooth and ridged), also on the old side
3. Many different russulas, mostly red capped
4. Two different *Lactarius*, one broad gilled and one finely gilled, both brown capped but without obvious rings or zones, both with acrid tasting whitish latex.
5. In addition to the *Marasmius rotula* and *Tetraprygos nigripes* above, there were at least two other very *marasmius*-like specimens that were different.
6. Several boletes infected with molds.

7. Several pretty-rotted oyster-like specimens, but possibly *Lentinus* sp.

Thanks to the Episcopal Diocese of Ohio for encouraging our foray on their property, and to Jessica Miller, Land Stewardship and Program Manager at Bellwether Farm, for hosting us.

FUNGUS USES LIGHT TO INVADE, ATTACK WHEAT PLANTS

By Brooks Hays
<http://www.upi.com/>,
April 12, 2017

The fungus *Parastagonospora nodorum* has forged a deadly partnership with sunlight, and wheat plants are paying the price. According to scientists at the University of Western Australia (UWA), *Parastagonospora nodorum* produces an herbicide compound called elsinochrome which destroys plant cells when exposed to sunlight. Researchers manipulated the fungus' genome to trigger

elsinochrome production, allowing scientists to observe the deadly compound's behavior inside wheat plants.

"To conserve energy, *P. nodorum* does not normally produce elsinochrome; however, it does when infecting wheat plants,"

Heng Chooi, a molecular scientist and research fellow at UWA, said in a news release.

"This has made it difficult up until now to know the identity of such small molecules that are produced by the fungus when infecting wheat plants and understand their contribution to the disease."

Elsinochrome belongs to a family of molecules called perylenequinones. When exposed to light, the molecules spawn reactive oxygen compounds capable of damaging cell membranes and proteins.

"When we deleted the gene in the fungus responsible for production of elsinochrome, we saw a reduced ability of the fungus to affect the wheat plant," Chooi said.

Scientists have previously observed the behavior of perylenequinone molecules, but never inside wheat plants, the most abundant commercial crop in the world. Researchers hope their findings, detailed in the journal *Environmental Microbiology*, will protect wheat crops from destruction.

"The study opens up new opportunities to find ways to stop the fungus from producing the herbicide compound or to make the wheat to become resistant and therefore less affected by the disease," Chooi concluded.

Articles for the next Log due September 24, 2017

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Calendar of Events

Check your most recent issue of the *Mushroom Log* or our website for more detailed information. Please plan to join us. All mini-forays are subject to cancellation. Call first to confirm. Please bring a whistle and compass and an **RSVP to the host is mandatory so they have cancellation flexibility.**

Morel and other mini-forays, are subject to change, especially the former. Leaders will be checking the woods to assess their progress, so you should contact them at least a week prior to the announced mini-foray for any updates.

Miniforays: (RSVP required)

See later issues of the Log or the OMS website for later postings of these miniforays.

Saturday, October 14 -
Columbia County.
Contact Walt Sturgeon at
330-426-9833.

October 21 OR 22 in
eastern Ohio. Sharon
Greenburg coordinating.



The Dick Grimm Memorial Banquet,
Sat. Nov. 4, 6:30 pm at the
historic Wolf Creek
Tavern near Norton.

In case you can't do the
banquet, here's another
option

Buckeye Book Fair 2017
(30th annual)

Date: Saturday,
November 4, 2017
Time: 9:30 am to 4:00 pm

Place: Fisher Auditorium
on the OARDC campus
1680 Madison Ave
Wooster, OH 44691

Admission: \$2 for adults

Events & Activities:
Northeast Ohio's biggest
book show! Book lovers
and readers of all ages
can meet nearly 100 Ohio
writers, illustrators, and
photographers who will
be on-hand all day at the

Nov. 4 Buckeye Book Fair
meeting readers and
signing copies of their
newest books. Literary
activities and events for
the whole family include
book shopping, arts
activities with illustrators,
and 4 author
presentations with Q&A.

Authors: Nicholas P.
Money is an Anglo-
American gentleman of
letters and professor at
Miami University in
Oxford, Ohio. He is an
expert on fungal growth
and reproduction.
Nicholas has authored a
number of popular
science books that
celebrate the diversity of
the microbial world,
including *Mushrooms: A
Natural and Cultural
History* (2017). *The
Mycologist* (2017) is his
first foray into fiction.

**More Information and
the complete list of
authors and speakers
is available online at
www.BuckeyeBookFair.com
or the Director
can be reached by
phone at **(330) 262-
2103** or by email at
buckeyebookfair@gmail.com.**

Name:(printed) _____ Address: _____

City: _____ State: _____ Zip: _____ Telephone: _____

Fax: _____ Email Address: _____

Enclosed please find check or money order (check one):

____ \$15.00 annual family membership (newsletter via email and website only)

____ \$20.00 annual family membership (newsletter via paper, email, and website)

____ \$150.00 life family membership (newsletter via paper, email, and website)

My interests are: Mushroom Eating/Cookery _____ Photography _____ Nature Study _____ Mushroom
ID _____ Cultivation _____ Other (specify) _____

Would you like to be an OMS volunteer? In what way? _____

How did you hear about our group? _____

May OMS provide your name to other mushroom related businesses? Yes _____ No _____

LIABILITY RELEASE AND PROMISE NOT TO SUE:

I understand that participating in the activities of a mushroom club involves a moderate amount of risk. This includes all of the risks of being away from home, risks associated with moving about in fields and woods, risks of encountering inclement weather, risks involved in eating wild mushrooms, risks of losing personal property by theft or misplacement, and all other expected and unexpected risks, including illness or injury. While a member of the Ohio Mushroom Society; or as a non-member attending any event hosted by the Ohio Mushroom Society, I agree to assume total responsibility for my own safety and well-being; and that of any minor children under my care, and for the protection of my and their personal property. I release the Ohio Mushroom Society, its board members, club members, contractors, and any and all entities such as parks or preserves, or any private property owner who may host an Ohio Mushroom Society event, and all other persons assisting in the planning and presentation of any Ohio Mushroom Society event, from liability for any sickness, injury, or loss I or any minor children under my care may suffer during any event or as a result of attending or participating. I further promise not to file a lawsuit or make a claim against any of the persons or entities set forth above, even if they negligently cause me or my minor children injury or loss. I agree to hold the Ohio Mushroom Society harmless from any liability they may incur as a result of any damages to any property I may cause. This release and promise is part of the consideration I give in order to be a member of the Ohio Mushroom Society, or to attend any event which they host or attend, whether a member or a non-member. I understand this affects my legal rights. I intend it to apply not only to me but to anyone who may have the right to make a claim on my behalf.

Signature: _____ **Date:** _____

Return form and check or money order to: Ohio Mushroom Society, c/o Jerry Pepera, 8915 Knotty Pine Lane, Chardon, OH 44024

DATED MATERIAL
Address service requested. Return postage guaranteed.

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Contributions of articles and ideas for columns are always welcome. Articles may be edited for length and content.

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