

THE MYCOPHILE

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www.namyco.org

AN OPPORTUNITY OF A LIFETIME!

Well, at least a once in a lifetime opportunity for ME! What am I talking about? The 2013 NAMA foray that will be held October 24–27 in Arkansas in the Ozark Mountain Range, of course.

There's an old folk saying about the Ozark Mountains: "It's not that the mountains are so high, it's just that the valleys are so deep."

The statement above is true because the Ozark Mountains are a heavily eroded plateau, pushed up eons ago and carved out by hundreds of streams over thousands of years. This region has been recognized as a geologically, physiographically, ecologically, and culturally distinct area of North America for a lengthy period of time. In conjunction with the Ouachita mountain region to the south, the Ozarks comprise the only significant highland in the central area of North America, and the only notable topographic relief between the Appalachians and the Rocky mountains.

This Ozark mountain region is characterized by a diversity of terrestrial, aquatic, and karst habitats, ranging from extensive glades and tall grass prairies to both coniferous and deciduous woodlands as well as cypress swamps, fens, sinkholes, sloughs, and a plethora of clear-flowing streams and rivers fed by an abundance of springs, including some of the largest freshwater springs in North America.

The Ozarks encompass 13.7 million hectares (34.3 million acres) and occur within areas of five states, with the majority of the region occurring within Missouri (67%) and Arkansas (24%) and smaller portions in Oklahoma (17%), Illinois (2%) and Kansas (0.1%). The Ozarks span a maximum of 270 miles (450 km) of north/south extent, and a maximum east/west extent of 340 miles (540 km).



Shepherd of the Ozarks Conference Center

The prevailing tree community through most of the Ozarks consists of a variable deciduous wooded upland growing on leached acidic soils with abundant chert residue. Such woodlands are dominated by various species of oaks, such as white oak (*Quercus alba*), scarlet oak (*Q. coccinea*), blackjack oak (*Q. marilandica*), post oak, (*Q. stellata*) and Eastern black oak (*Q. velutina*). Associated with these oaks is an assortment of hickories such as pignut hickory (*Carya glabra*), black hickory (*C. texana*) and mockernut hickory (*C. tomentosa*), as well as a diversity of other trees, notably flowering dogwood (*Cornus florida*) and black gum (*Nyssa sylvatica*).

Although books and articles have been written about much of the biota that occurs within this region, there has not been any extensive inventory of macrofungi in this area. So the potential for finding interesting and unusual mushrooms during the course of this foray is indeed great. We plan to collect macrofungi in several areas of the forests in the Southern Ozark Mountain range as well as at least one area within the Buffalo River National Park.

The Shepherd of the Ozarks conference center will serve as the location for the 2013 NAMA foray. This location will allow us easy access to the southern perimeter of the Ozark Mountain Range. Lodging will be provided in nine on site lodges. The majority of these lodges are equipped with full kitchen appliances. Dining, mushroom identification and displaying of the mushrooms will all be done in one large building, the Buffalo Center.

Shepherd of the Ozarks also provides some on site activities that non-mushrooming folks might enjoy. These activities include: river tubing, fishing, sand pit volleyball, 9-hole disc golf, and for a fee - horseback riding, wilderness paintball, cliffhanging, laser tag, and navigating along some high ropes. I encourage anyone desiring additional information about Shepherd of the Ozarks to check out their web-site: <http://www.sotocamp.com/>



The mycologists who have agreed to participate at this year's NAMA foray include:

Dr. Clark Ovrebo, mycologist and professor of biology at the University of Central Oklahoma, has agreed to serve as the foray's chief mycologist. Clark has done extensive work with members of the genus *Tricholoma* and has recently done some field work on the Eastern edge of Brazil.

Dr. Alan Bessette, mycologist and retired professor of botany from Syracuse University, and his wife Arleen Bessette,

have authored or co-authored many well recognized mushroom field guides such as *Mushrooms of Northeastern North America*, *Mushrooms of the Southeastern United States*, *Milk Mushrooms of North America: A Field Identification Guide to the Genus Lactarius*, *Waxy Caps Mushrooms of Eastern North America* as well as *North American Boletes*.



Dr. Andy Methven, mycologist and professor in the department of biological sciences at Eastern Illinois University, has co-authored several books with Michael Kuo. His current area of research is examining the distribution of *Lactarius* in the Western Hemisphere.

Dr. Michael Kuo is the author or co-author of several mushroom field guides including *Morels*, *100 Edible Mushrooms* and *100 Cool Mushrooms*. He also is the originator and web-master of that highly informative web-site that many of us visit from time to time, www.MushroomExpert.com.

Dr. Jean Lodge is a mycologist and botanist who works at the Northern Research Station, Sabana Station in Luquillo, Puerto Rica. She is a co-author on papers dealing with genera such as *Cantharocybe*, *Pleurocollybia*, *Camarophyllus*, as well as a newly described veiled *Hygrocybe*.



Dr. Tom Volk is a well-known mycologist who has participated in many NAMA forays. He is currently professor of biology at the University of Wisconsin at La Crosse and has done research on many kinds of macrofungi including *Armillaria*, *Laetiporus*, as well as other wood-rotting fungi.

Dr. Britt Bunyard is editor and publisher of *Fungi Magazine* and a co-author on a newly released mushroom field guide, *Mushrooms and Macrofungi of Ohio and the Midwestern States*.



David Lewis, who has earned the title of “Magnificent Mycologist of Texas”, has done extensive field work in the Big Thicket National Preserve in Texas. David has four mushrooms bearing his last name including *Cortinarius lewisii*, *Cantharellus lewisii*, *Pulveroboletus lewisii*, and *Russula lewisii*.



It's going to be a great foray this year in Arkansas! The scheduling of the foray for late October will assure that participants will not have to deal with high temperatures or humidity or ticks or chiggers. As an added bonus the leaves on the oak and hickory trees should be exhibiting some brilliant fall colors. Hope to see you in October!

– Jay Justice, President of the Arkansas Mycological Society and Registrar for the NAMA 2013 foray.



The registration form and waivers for the 2013 NAMA Foray can be found on the last four pages of **The Mycophile**.

See also: <http://www.namyco.org/events/NAMA2013/index2013.html>

PRESIDENT'S MESSAGE

Getting Down to Business at NAMA

In my new role as president, I've been looking at the processes by which we function throughout the year. Treasury, Finance and Membership are our three mainstays, bringing in and maintaining our funds, and they work well. The committees — in particular Education, Toxicology, Photography and Cultivation — are popular destinations on the website. Planning for the annual and regional forays requires involvement and attention, which is the job of the Foray Committee. Several NAMA committees — Medicinal Mushrooms, Arts & Graphics, Mycophagy, Dyeing & Papermaking — could benefit from your expertise; please get involved and help design new programs.



David Rust

NAMA clearly needs more communication — with our affiliated clubs, regional trustees and non-affiliated members. *The Mycophile* is our primary method of relaying information, although we also have a website, Facebook page and online discussion group. Developing more effective communication tools will be one of my goals in the coming year.

As an association whose primary goal is to “promote, pursue and advance the science of mycology,” we can do more to develop programs, establish basic tools, and organize around scientific research. For example, take a quick look at the British Mycological Society (BMS) website: <http://www.britmycolsoc.org.uk/>. The home page has three areas to investigate: Fungal Biology Research, Education and Outreach, and Field Mycology and Conservation. For decades, the BMS has trained their members to describe, photograph and publish new taxa. Articles are published in the BMS journal *Field Mycology*. This might serve as a model for our publication *Mycophila*, to engage NAMA members in science and help mycology students get published. Conservation is an area we haven't touched. In a time of changing climate and land development, we can serve science well by documenting what we have now.

NAMA also needs to establish long-term planning and a better record of what we do year to year - key to growing the organization into our modern age. This is a subject you'll be hearing much more about.

I can report that we are in good shape financially; the last two forays were profitable and we have steady income from membership dues. Our fellowship endowment has surpassed the half way mark and is building steadily toward the goal of \$100,000. The \$2,000 NAMA memorial fellowship is awarded annually in conjunction with the Mycological Society of America to a promising graduate student in mycology.

In the first three months of 2013, I've looked at NAMA's basic documents and business procedure with an eye toward strengthening our basic foundation. The Executive Committee is functioning and involved, and I consult frequently about budget and policy issues. I believe new financial controls are needed, as well as a more comprehensive description of Executive Committee role and responsibilities in the policy manual.

If you have ideas or suggestions you'd like to share, please do so by email (david.rust@sbcglobal.net) or by phone 510-468-5014. The best suggestion I've heard so far, from Anna Gerenday, is creating a directory of mycological survey projects currently underway in North America. This would be a great addition to our website.

NAMA's 53rd Annual Foray will be held this year in the Ozarks in Arkansas, October 24-27, 2013. Join us there. It's gonna be a good one!

SUPER IMMUNE SOUP

by Chef Zachery Mazi

This recipe combines herbs, both medicinal and culinary, with mushrooms, medicinal and culinary, and several broths, fresh vegetables, and coconut milk for a delicious and healthy soup.

Mirepoix

2 –3 T Coconut oil
2 small leeks, cleaned and chopped
1 large carrot, chopped small
4 ribs celery, chopped small
6 garlic cloves, broken and bruised
6 inches ginger root, minced
6 inches turmeric root, minced
2 lemongrass stalks, broken and bruised

Mushroom Blend

1.5 lb. shiitakes, sliced and chopped
6 oz. fresh oyster mushrooms
1 small dry reishi mushroom, chopped
8 Turkey Tail mushrooms, (3 oz) chopped
Stock and Seasoning
1 lime, quartered
1 qt. mushroom stock
1 qt. chicken broth
1 gallon vegetable stock
2 T Apple Cider Vinegar
Finishing Ingredients
2 cans Coconut Milk
3 bunches baby bok choy, chopped 1 bunch green onion, diced
3T Coconut Aminos (like Bragg's, but coconut; Coconut Secret)
Salt to taste

Herbal Tea

2 oz. Echinacea root
6 inches licorice root, broken
3 cold and flu tea bags
1 qt. water

Sweat the mirepoix: Place coconut oil in heating stock pot, and add leek, carrot, celery, garlic, ginger, turmeric root, and lemon grass, and sweat (do not brown) until vegetables are soft and aromatic. Add mushrooms, and stir quickly to coat with vegetable juices and coconut oil.

Add the stock: Add all stocks, lime, and vinegar and increase heat to bring soup to a boil. When boiling, reduce to a simmer and cook for many hours to reduce

liquid.

Make the tea: Meanwhile, combine echinacea root, tea bags, and licorice root on low heat and brew for as long as desired. This will be added to the reduced soup later.

Finish the soup: When soup is reduced to desired flavor (this will intensify), add herbal tea. the soup may reduce even more at this time, or you may remove from heat, add the coconut milk and bok choy, and season with salt and pepper, and coconut aminos.

Before serving: Immediately before serving, add green onions. Note: The longer this soup steeps with the medicine, the better. Up to 12 hours. The soup may separate, but a good shake in a sealed container will bring it back together. As an option, you may remove the reishi mushroom, turkey tail, lemon grass and lime before serving, for ease of eating (sick people will appreciate this effort). This recipe makes 1 gallon of soup.

Snow Peas. Leeks. Shiitake Mushrooms.

A quick and delicious Asian inspired vegetable dish.

1 T coconut oil
1 leek, white part only, washed, quartered and sliced thin against the grain
1 lb. shiitake mushrooms, de-stemmed, and sliced thin
1 lb. snow peas, strings removed
1 t salt
1/2 t pepper
1 to 2 T Coconut Aminos
Heat sauté pan on medium heat and melt coconut oil
When oil is hot, add leeks and shiitakes and cook until shiitakes are fully cooked and have released their juices.

Add salt and pepper.

Add snow peas, and sauté quickly.

Add coconut aminos and cover to steam finish the dish.

Simply exchange the peas for sliced baby bok Choy for a crunchy and delicious alternative.

These recipes first appeared in The Fungus Federation of Santa Cruz newsletter, The Duff, March 2013, where one can find the first of a three-part series on medicinal mushrooms written by the author, Chef Zachery Mazi.

CLITOCYBE SCLEROTOIDEA

A Most Wonderful Parasite of *Helvella Vespertina*

by Nhu Nguyen

I love parasites. They are just some of the neatest things; except when I'm forced to play host. Parasites come in all sorts of shapes and sizes and it is thought that every species on Earth has a parasite of some sort. Animals have parasites, plants have parasites, and fungi too have parasites. I can talk about parasites all day (yes, that parasitology class



in college right before lunch three times a week left quite the impression), but I will focus on just one this time.

Mycoparasites are fungi that parasitize other fungi and they commonly occur in the mushroom world. Typically the more colorful or pronounced ones get more noticed. Examples of colorful parasites would be *Hypomyces chrysosporium*, a common parasite on boletes on the West Coast with golden spores. Another one known amongst mushroom hunters is *Hypomyces lactifluorum*. That covers a *Russula*, turning it beautifully orange and delicious. Then you have those that are tiny, but still beautiful like *Dendrocollybia racemosa* with its strange side branches on the stipe and *Spinellus fusiger* that

turns a *Mycena* into a fuzzball on a stem.

Clitocybe sclerotoidea is another one of these fascinating mycoparasites. It was first described as *Tricholoma sclerotoideum* by E. E. Morse in 1943 and moved into the genus *Clitocybe* in 1945. Careful examination of the mushroom (see photos) shows characters that are *Clitocybe*-like, such as the pallid gray color of the gills, which makes the move seem correct. However, recently one of our specimens was sequenced and the DNA says that it may be better as a *Tricholoma*. It seems that the original description may have been correct. We need to sequence more specimens to make sure that this is indeed the correct identification, so for now, we'll call it a *Clitocybe*.

This is an even more specific case in mycoparasitism where a mushroom parasitizes another mushroom. The host mushroom in this case is *Helvella vespertina* (the western North American conifer associate previously known as *Helvella lacunosa*). We don't know how or when the infection gets started, but we do know the result of the infection and it's not pretty for the *Helvella*. The *Clitocybe* seems to wait for the host to produce a stipe, then it covers the whole host in a mass of white hyphae, distorting and suppressing the *Helvella's* development. As a result, a mass about half the size of a golf ball is formed. Morse called this a "sclerotoid mass", hence the species name *sclerotoidea*. Sclerotia (sclerotoid = resembling a sclerotium) are fungal structures that resist adverse environmental conditions and can sprout new fungi, very analogous to a potato. If you ever find one of these *Helvella* sclerotoid masses, cut it in half, and you will find the lacunose remains of a *Helvella* stipe covered in white fuzz. Trappe (1972) wrote a nice little microscopy study of these sterile sclerotoid masses.



At the right time, a dense cluster of little mushrooms will sprout out of the sclerotoid mass and the spores released from these mushrooms will continue to infect other developing *Helvella* specimens. At this time, we don't really know how the spores are able to infect new *Helvella* hosts. The timing seems wrong. *Helvella vespertina* fruits in late autumn to spring in northern California. The masses of sclerotia appear in late winter, around December, and the mushrooms appear in January. This means that if the *Clitocybe* spores were to continue the infection cycle, they would either have to infect the *Helvella* hyphae right away or the spores will have to sit around for another year before the *Helvella's* fruit again. Sitting around doesn't seem likely for these light-colored spores.

Parasites do many things to their hosts, but one of the most harmful things that they do is cause the host to go sterile. In the case of our *Clitocybe*, it causes the *Hevella* to cease mushroom production and all that is left is just a mass of sterile stipe without the ability to produce spores for the next generation. Yes, despite the drama, I still love parasites but loving mycoparasites means that I won't ever have to worry about being forced to play host.

To find these mushrooms, look for a place where *Hevella vespertina* fruit abundantly under conifers and you should be able to find them. In northern California, they start appearing around late December.



References:

Morse EE. 1943. Study of a new *Tricholoma*. *Mycologia* 35:573–581.
Morse EE. 1945. Some western discomycetes. *Gyromitra esculenta*, *Hevella lacunosa*. *Mycologia* 37:414–424.
Trappe JM. 1972. Parasitism of *Hevella lacunosa* by *Clitocybe sclerotoidea*. *Mycologia* 64:1337–1340.

This article first appeared in the March 2013 issue of *Mycena News*, the newsletter of the Mycological Society of San Francisco.

About the author: Nhu Nguyen is a PhD candidate at UC Berkeley studying under Tom Bruns. He enjoys collecting and eating mushrooms (the edible ones of course), describing new fungal species, and photography of plants and fungi. His research interest is in symbiotic interactions between fungi and other organisms. For more of his work, see his web page at <http://www.flickr.com/photos/xeranthemum/>



Congratulations to member Ophelia Barizo for winning the Einstein Fellowship. Ophelia Barizo, a teacher at the Highland View Academy in Hagerstown, Md. and member of NAMA's Education Committee, will serve at the National Science Foundation's Directorate for Engineering (ENG), Emerging Frontiers in Research Innovation Division (EFRI) under the guidance of Rosemarie Wesson.

The NAMA Education Committee is pleased to announce that a package of two DVDs containing 26 programs produced by Michael Beug on fungi education is now available to NAMA clubs and individual members at a cost of \$25.00.

For a listing of included programs, visit the NAMA web site:

<http://namyco.org/education/edprog.html>

To order, please send a request for the DVDs with a check enclosed made out to NAMA for \$25.00 to :

Gerald Sheine
P.O. Box 81640
Rochester, MI 48308-1640

FORAYS & OTHER EVENTS

This section of the newsletter is reserved for publicizing the annual forays of NAMA affiliated clubs and other events you may be interested in learning about. If you would like us to list your club's next big event, contact us with details you would like displayed here and send to dianna.smith@comcast.net

<http://www.namyco.org/events/NAMA2013/index2013.html>

June 22-29: *Natural History Conference* on Star Island off the coast of New Hampshire. The theme is The Mysterious & Misunderstood World of Mushrooms. Dr. Rick Van de Poll will be giving lectures throughout the week, giving the do's and don't's of picking and using mushrooms, including their many culinary uses. Here is an opportunity to learn all about mushrooms and enjoy a week on an island off the coast of New Hampshire. For further information see www.nhcstar.org.

August 7-11: *NEMF Foray* in Rimouski, Quebec. For details on location, program and registration visit the Cercle des Mycologues de Montréal website <http://mycomontreal.qc.ca/> then click on the NEMF - FQGM - 2013 link.

Aug. 30-Sept. 2: *COMA's Clark Rogerson Foray* at the Hemlocks Easter Seals Camp in Hebron, CT over Labor Day weekend. Everyone is welcome whether a member or not. Invited mycologists include Gary Lincoff, Roz Lowen, Bill Yule and others. To register, see www.comafungi.org.

Eagle Hill Institute Mycology Workshops in Steuben, Maine
PO Box 9, 59 Eagle Hill Road, Steuben, ME 04680, office@eaglehill.us, www.eaglehill.us.

July 28-Aug. 3: Mushroom Identification for New Mycophiles: Foraging for Edible and Medicinal Mushrooms with Greg A. Marley and Michaeline Mulvey.

Sept. 8-14: Boletes of North America: A Field Seminar and Workshop with Alan E. Bessette and Arleen R. Bessette.

Sept. 6-8 The *New River Valley Mushroom Club* in conjunction with the *Mycological Association of Washington (MAW)* has an event coming up September 6th-8th at Mountain Lake, VA. Details TBA.

Sept. 12-15: *Wildacres Regional Foray* in the Blue Ridge Mountains of North Carolina.

Sept. 28-30: *Newfoundland and Labrador Foray* in beautiful Terra Nova National Park. For information consult www.nlmushrooms.ca.

Oct. 3-6: The *Missouri Mycological Society* (MOMS) invites you to their Annual Fall Foray at Mingo Wildlife Refuge in southeastern Missouri. See www.MoMyco.org for more information.

Oct. 24-27: *Arkansas Mycological Society* hosts the 2013 *NAMA Foray*. See attached registration and waiver forms. (Note: Membership in NAMA is required to attend NAMA Forays).

If you are the editor of a NAMA associated club, please send copies of your newsletter to both David Rust at incredulis@yahoo.com and to me at dianna.smith@comcast.net. Kindly note that my old e-mail address diannasmith@optonline.net is no longer in operation.

CORRECTION

I wish to acknowledge the error made in incorrectly spelling the name of the photographer of the Tree Ear photo, that accompanied the article "Eating Wild Mushrooms All Year Long" by Dave Layton & Barbara Ching in the March-April edition of *The Mycophile*. The photographer's name is Jim Frink.

NAMA 2012 PHOTO CONTEST WINNERS in the category of 'Judges' Option'



Gymnosporangia juniperi-virginianae
by John Dawson
First Place Winner of 'Judges' Option'.
(Gall, Telial Horns, Teliospores, Aecia)



REISHI MAN by Todd Elliott
Second Place Winner of 'Judges' Option'.



WICKETS DISCOVERY by Allan McClelland
Third Place Winner of 'Judges' Option'.

THE DEERHOLME MUSHROOM BOOK: FROM FORAGING TO FEASTING

Bill Jones 2013

Touchwood Editions

Victoria, British Columbia

ISBN 978-1-77151-003-5

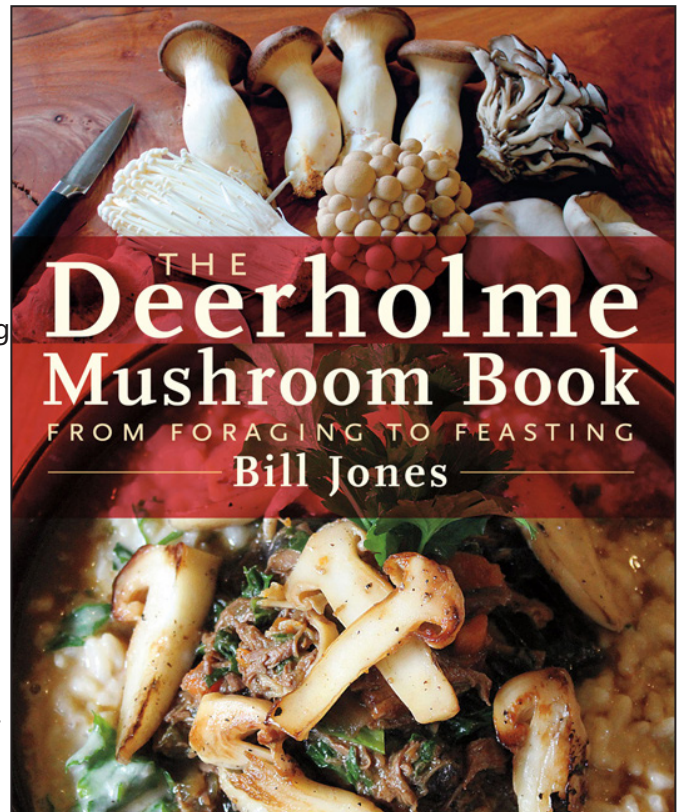
\$29.95

The *Deerholme Mushroom Book* has earned a premier place in my kitchen collection of cookbooks. The 140+ recipes are presented in 15 separate sections covering everything from tapas, appetizers and salads to main courses, deserts and beverages. Bill Jones describes how to make stocks, sauces, and pickles. Some recipes have an Asian influence, others a middle-eastern influence while still others are drawn from Spanish culture, French culture and Northern European cultures. Throughout the book, there is an emphasis on locally sourced ingredients. The mushrooms used are both purchased and foraged species with lots of suggestions for mushroom substitutions in the recipes. Many of the recipes involve simple procedures that I am eager to put into practice. The recipes are mouthwatering. The illustrations are beautiful and inviting.

Bill Jones describes how to harvest wild mushrooms, select mushrooms at the store, clean mushrooms, preserve them, reconstitute dried mushrooms and cook previously frozen mushrooms. Unfortunately, he may not be aware that freezing mushrooms whole, a procedure he sometimes uses, does not completely stop biological activity and on rare occasions people become ill from cooking frozen mushrooms that have not been partially cooked to deactivate enzymatic activity prior to freezing.

While I loved the cooking section of the book, the short foraging section (pp. 12-47) should have been more thoroughly researched. He relates a story about the deadly species, *Amanita verna* (not found in the Pacific Northwest) being both sweet and delicious (possibly true), but the story should have been told starring *Amanita ocreata*, a look-alike, definitely delicious, but deadly, Pacific Northwest species. He reports that "the organs shut down and the results are not pleasant (coma, death), unless and organ transplant is performed." Prompt medical intervention involving aggressive rehydration therapy can save at least 90% of amatoxin poisoning victims. Two additional therapies can be employed in the most severe cases meaning that liver transplants can normally be avoided. If the damage is so great that a kidney transplant would also be required, then even transplantation will not save the individual.

I have minor problems with his recommended varieties (pages 18-37). First, morel nomenclature (pp. 18-19) is currently in a state of flux. There are dozens of species in North America and only a few can be reliably identified without resorting to DNA. In North America, we have many different black morels so they should not all be labeled *Morchella elata* (p. 18). We have two known yellow morel species in the west and many more in the east, but so far, there is no evidence that *Morchella esculenta* (p. 18) is present in North America. *Morchella tomentosa* (p. 19) is only one of many different burn morels. *Morchella rufobrunnea* (p. 19) is found in California and Mexico, was called *Morchella esculenta*, not *Morchella deliciosa*, and what Bill Jones has been finding and calling the Western White Morel (p. 19) is probably the Western Blond Morel, recently named *Morchella frustrata* but never confused with *Morchella rufobrunnea*. Fortunately, these morels are all edible, when thoroughly cooked. However, it is important to note that all morels are poisonous when raw or insufficiently cooked. The implication from the book is simply that some people may have an allergic reaction to raw morels. He also says



"As well, a significant number of people exhibit dizziness and mild tremors when they combine morels and alcohol." My observation is that while allergic reactions to morels are more common than for any other edible mushroom, allergic reactions are rare, as are adverse reactions when morels and alcohol are combined. If there is an adverse reaction to morels with alcohol, the reaction may sometimes include dizziness, but vomiting and stomach upset are more likely.

The chanterelle section (pp. 19-23) over-looks *Cantharellus cibarius* var. *roseocanus* (now simply *Cantharellus roseocanus*). It is the smallest, but most fragrant, of the yellow chanterelles found in the Pacific Northwest (it is also the yellow chanterelle of Colorado and New Mexico).

For boletes, we read (p. 23) "...no members of the family are deadly poisonous. A few boletes are bitter..." It is only a few pages later (pp. 25-26) that one reads "a few are considered poisonous... One such bolete is called satan's bolete (*Boletus satanas*), a fleshy mushroom that exhibits a deep-red, spongy mass under the cap and stains blue when pressed or cut. The mushroom is toxic when raw and has been reported to cause great digestive distress." Well, some of the boletes with reddish to orange-brown sponge cause such severe gastrointestinal distress that at least one person has died.

Leccinum species (scaber boletes) can cause lengthy severe-flu like symptoms in sensitive individuals. In eastern North America there are toxic boletes that can be fairly easily confused with the king bolete, *Boletus edulis*.

There is a warning on page 34 of not consuming alcohol with a meal of shaggy manes (*Coprinus comatus*). While the rare sensitive individual may have problems combining alcohol with a meal of shaggy manes, the mushroom with "components that do not react well with alcohol..." it is the inky cap (*Coprinopsis atramentaria*, formerly *Coprinus atramentarius*).

On page 35, the term "truffle" should be applied to all underground fungi, not just *Tuber*, *Terfezia* and *Leucangium*. Even within the genus *Tuber*, not all truffles are edible. Not only that, but the edible truffles themselves have no redeeming features until mature, thus the forager without a trained dog is likely to harvest immature truffles and make very unexciting finds (p. 37). As far as we know, the only poisonous truffles have a very thick skin (some *Scleroderma* species and some *Elaphomyces* species) and all of the good, edible truffles have distinctive, pleasant odors.

Over all, as long as you do not try to use the book in place of a field guide to mushrooms, I highly recommend the book. It is well worth the \$29.95 price. I cannot wait to try many of the recipes.

Review by Michael W. Beug



Mushroom Cake



Author and Chef, Bill Jones

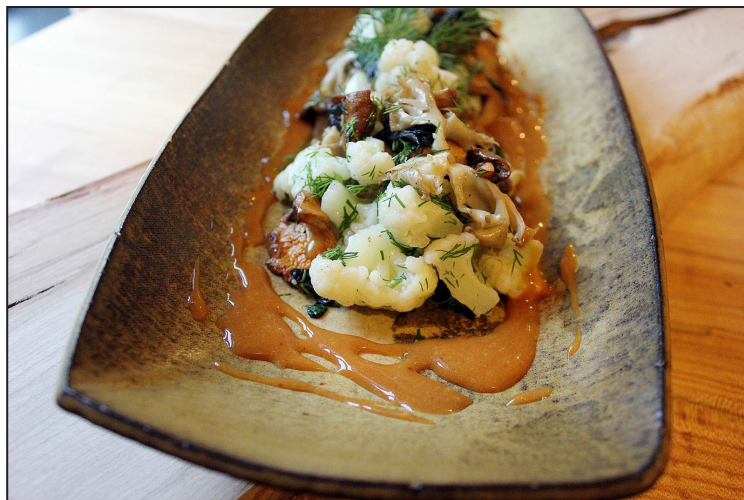
With the generous permission of Bill Jones, author of the *Deerholm Mushroom Book, From Foraging to Feasting*, we are presenting two mouth-watering recipes for you to try.

WILD MUSHROOM SALAD WITH CAULIFLOWER, DILL, AND ROSEHIP VINAIGRETTE

SERVES 4

Rosehip butter is packed full of nutrients and vitamin C. You may have to search a little to find it in health food stores or in specialty food shops catering to Germanic and Nordic clients. Alternately, you can find rosehip syrup in some stores and it makes an acceptable substitute for the butter. You can also use apple butter or even orange marmalade as a nice substitute. We make our own rosehip butter on Deerholme Farm every late fall, just after the frost has touched the rosehips.

- 1 cauliflower head, cut into chunks
- 3 Tbsp (45 mL) apple cider vinegar, divided
- 1 Tbsp (15 mL) honey
- 1 Tbsp (15 mL) butter
- 4 cups (1 L) chopped mushrooms (chanterelle, button, pine, etc.)
- 2 Tbsp (30 mL) chopped fresh dill
- Salt and pepper, to taste
- 1 Tbsp (15 mL) rosehip butter (or rosehip syrup or apple butter)
- 1 Tbsp (15 mL) mustard (yellow or grainy)
- 2 Tbsp (30 mL) grapeseed oil



Heat a large pot of boiling salted water. Cook the cauliflower until tender and then drain. Return the cauliflower to the pot and while it is still hot, add 2 tablespoons (30 mL) of the cider vinegar and the honey. Toss to mix. In a skillet over medium-high heat, add the butter. When it is sizzling, add the mushrooms and sauté until they begin to brown. Add the mushrooms to the cauliflower and toss to coat. Season well with dill, salt, and pepper.

In a small bowl, combine the rosehip butter, remaining 1 tablespoon (15 mL) of cider vinegar, and mustard. Whisk until smooth, then add the oil in a slow stream while whisking until thick. To serve, arrange the salad on a platter and drizzle with the vinaigrette. Serve at room temperature or chilled.

JAPANESE PORK AND MUSHROOM GYOZA

MAKES 24

These addictive dumplings are easy to make in bulk and they store well in the freezer.

Dipping sauce

- ¼ cup (60 mL) rice vinegar
- 1 Tbsp (15 mL) soy sauce
- 1 Tbsp (15 mL) shredded fresh ginger
- 1 tsp (5 mL) hot sauce

Gyoza

- ½ lb (225 g) ground pork
- ½ cup (125 mL) mushrooms (shiitake or button)
- 1 Tbsp (15 mL) minced fresh ginger
- ¼ cup (60 mL) finely chopped cabbage
- 1 tsp (5 mL) salt
- 1 Tbsp (15 mL) cornstarch
- 1 tsp (5 mL) sesame oil
- 1 recipe gyoza wrapper dough (see below)
- 1 egg, beaten (or 2 Tbsp [30 mL] water)
- 1 Tbsp (15 mL) vegetable oil



In a small bowl, prepare the dipping sauce by combining the vinegar, soy sauce, ginger, and hot sauce. Stir well to mix and set aside.

In a medium bowl, combine pork, mushrooms, ginger, cabbage, salt, cornstarch, and sesame oil. Mix until smooth and cover with plastic wrap. Chill in fridge for at least 1 hour. On a work surface, lay out 4 wrappers. Using a pastry brush, coat each round with a light covering of egg wash (or water, if using). Place 1 teaspoon (5 mL) of filling in the centre of each wrapper and fold it to form a half moon. Make sure to keep the wrapper's edges free of filling to ensure a good seal. Press edges together firmly to seal, make 3 or 4 small folds along the edge to make a pleated finish.

In a non-stick skillet, heat oil over medium-high, then add the gyoza and pan-fry for 1 minute. Add 1 cup (250 mL) water and cover the skillet with a lid. Cook until the moisture evaporates, about 7–8 minutes. Uncover and finish cooking dumplings until the bottoms are browned, about 2 minutes. Transfer to a plate and serve warm with the dipping sauce.

Gyoza Wrapper Dough

- 1 cup (250 mL) unbleached flour
- ½ tsp (2 mL) salt
- ¼ cup (60 mL) boiling water

In a food processor, add the flour and salt. Turn on the processor and add the water slowly through the feed tube until the dough comes together in a ball. Remove from the processor bowl, cover in plastic wrap, and let rest for at least 1 hour and up to 3 hours.

Cut the dough into 24 walnut-sized pieces, lay on a floured work surface, and roll out with a rolling pin into small rounds. Make the dough as thin as possible and about 3 inches (7.5 cm) in diameter.

THE OUTER SPORES: MUSHROOMS OF HAIDA GWAI

Paul Kroeger, Bryce Kendrick, Oluna Česka, and Christine Roberts

2012, Mycologue Publications (www.mycolog.com) and Haida Gwaii Museum

189 pages, ISBN 978-0-9692237-3-3 (paper, \$25 + shipping, see website for order form)

Formerly known as the Queen Charlotte Islands, Haida Gwaii is a complex of over 150 islands, totaling about 10,000 km², off the coast of British Columbia. They lie between Vancouver Island to the south and the islands of southeast Alaska to the north. There's a story behind the book's title, but I won't spoil things by telling it here, other than to say that the American writer, John Steinbeck, was involved.

Bryce Kendrick is a retired professor of mycology and author of the popular text, *The Fifth Kingdom*. The other three co-authors are regionally well-known amateur mycologists who have carried out a number of mushroom surveys in different parts of B.C.

This is not a field guide, but a field-guide-sized eclectic presentation of the mushrooms of Haida Gwaii, based mostly on the results of a 5-year survey conducted by the authors. It begins in field-guide fashion with a chapter that introduces mushrooms—what are fungi, mushrooms, ascomycetes, and basidiomycetes, how fungi get their energy, and their roles in forests. The second chapter describes Haida Gwaii. This is followed by chapters dealing with the uses of mushrooms by the Haida people (one of Canada's "first nations"), the edible mushrooms of the archipelago, commercial harvest of edible mushrooms, and species accounts of some of the edible mushrooms. The focus then shifts from edibility, with chapters covering species accounts of selected noteworthy mushrooms, some interesting ecological aspects of Haida Gwaii mushrooms (including the truffle lifestyle, sand dune mushrooms, and the "ammonia fungi" or "corpse-finders"), poisonous mushrooms of the area, "magic" mushrooms, atlas (photographs) of some of Haida Gwaii's mushrooms, and a summary of the 5-year survey project. The book closes with a bibliography, nutshell author bio's, a very useful species list, and index organized by common name and genus.

The book is informative, well written throughout, and provides a look at not only the mycota of Haida Gwaii but that of the coastal spruce-hemlock forests and shore pine muskegs of the broader region as well. Of most interest to me was the summary of the results of the 5-year survey (for those with similar interest, a draft technical report has been prepared and is expected to be finalized in the near future, now that the popular book has been published).

During the survey over 2900 collections were made, representing 615 species. As has proved to be the case with similar studies elsewhere, many new species were collected each year, the species total was



THE OUTER SPORES
MUSHROOMS OF
HAIDA GWAI

paul kroeger
bryce kendrick
oluna ceska
christine roberts



continuing to climb at the end of the survey, a relatively small number of species (31) was found in all five years, and most species (378) were found in only a single year. The most common genera were *Cortinarius*, *Russula*, *Mycena*, *Inocybe*, and *Lactarius*. National Park access regulations restricted collecting to the early were found, suggesting that there are many more late-season fruiterers awaiting documentation. About half of the species are ectomycorrhizal ones.

In reviewing the species list, I was struck by the paucity of identifications to genus-only. Even in genera as notoriously difficult and under-studied in North America as *Cortinarius* and *Inocybe*, every one of the 71 and 32, respectively, taxa on the list was identified to species with no *sensu lato*'s, *cf*'s, or *aff*'s (all indicators of a degree of uncertainty in applying names). This suggests to me that some of those names, especially the European ones, should be taken with a grain of mycological salt.

In the atlas chapter, there are approximately 140 color photographs illustrating about 100 species, including two slime molds and a few ascomycetes with very small fruitbodies. There are also a few shots of microscopic features. The size of the photos varies, with most being between 2 and 3 inches in long dimension. There are some very nice shots but overall the photos are not up to the standard of most recent field guides. The lighting or focus is poor in several, color is poorly rendered in some, others don't show the features necessary to identify the species (although perhaps the authors did not intend them to be used for identification), and a large number are of mushrooms being held in someone's hand. In addition to this collection of photos, most of the other chapters are illustrated with color photos, maps, and charts. There are several maps that show the general physiography of the archipelago, sites visited during the survey, sites where particular species were found, and so forth. It would have been nice also to have a map showing where Haida Gwaii is relative to the B.C. mainland, Vancouver Island, and southeast Alaska, and to have the locations of the individual islands, communities, and other places that are mentioned in the text indicated on one or more of the maps.

The Outer Spores will provide mushroom hunters in the Pacific Northwest with a useful secondary resource when trying to identify fungi found in habitats similar to those of Haida Gwaii—in particular the species list will provide some possible suspects to consider and then these can be tracked down in other field guides, Pacific Northwest Key Council keys, or the computer program, *MatchMaker* (both of the latter resources available for free download at the South Vancouver Island Mycological Society website [search "SVIMS"]). It also provides a good look at what visitors to the area are likely to find and allows armchair forayers to get a sense of the regional mycota. However, it might have even greater value in showing what a small group of dedicated people can do to document the mushrooms of an area. If the North American Mycoflora project (<http://www.northamericanmycoflora.org/>) is to become a successful reality, groups such as mushroom clubs will have to embark on similar projects throughout the continent and the Haida Gwaii study is evidence that such projects can be done. *The Outer Spores* is well worth adding to your library.

Steve Trudell

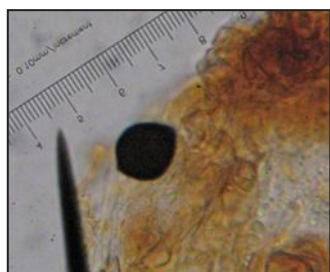
Note: Mycologue offers a reduced price for mushroom clubs—10-30 copies, \$20 per copy + shipping (boxes of 30 give lowest per-book shipping cost).

PARASOLA SCHROETERI ON LONG ISLAND, NY

by Joel Horman

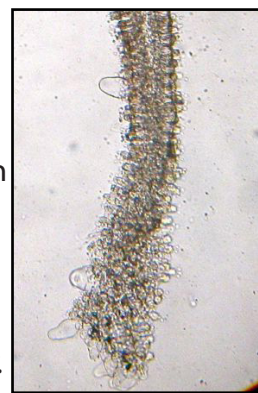


This is the last of the three (formerly) *Coprinus* species that were growing unbidden on our deck in flowerpots last summer, and perhaps the most problematic in terms of identification. Now along with most of its brethren, nestled among the *Psathyrellaceae*, it is one of the group with no veil remnants, in the genus, *Parasola*, and grouped in Kee Ulje's online *Coprinus* key, which I depended upon, in subsection *Glabri*, meaning 'bald'. Because of multiple fruitings within a two week period, I had the chance to observe that it could differ to the naked eye on each round, while microscopically it remained stable. It so closely resembles *Parasola plicatilis* macroscopically, that it is impossible to distinguish them. In fact, I would have dismissed them as that, but having them consistently flaunted before me, I was seduced into taking a closer look.



P. schroeteri spore

Not that there are glaring differences microscopically, these being mostly of degree rather than kind. But in the absence of DNA evidence we must fall back on these differences to establish an identification. The first hint that it might be other than *P. plicatilis* was the size and shape of the spore. Both species have spores greater than 9 μm long, but in the latter are described as angularly ovoid, about 10-14 X 7-10, while those of *P. schroeteri* are rounded triangular, 10-16 X 9-13. The Q value, or ratio of



Gill cross-section and cystidia

length to width, averages 1.10-1.20 in *P. schroeteri*, and 1.15-1.55 in *P. plicatilis*. Our specimen spores (see photo of typical spore above left) were mostly 11-15 (16) X 9-13 with a Q value of about 1.2, so entirely within the range for *P. schroeteri*. Both species have cheilocystidia and pleurocystidia, not dramatically differing, but distinguished by small size and shape differences. In general, both types of cystidia are larger and more varied in shape in *P. plicatilis* than in *P. schroeteri*, and ours adhered to this general pattern, and were in fact somewhat smaller than reported. If shape is emphasized, our cystidia were mostly utriform and subcylindrical, with a scattering of lageniform types, reflective of the description and illustrations of Ulje.

Parasola schroeteri is a species described from Europe, and a search of the Mycoportal site, which enables a species search for archived specimens, reveals a handful of them in the United States and Canada, (none more recent than 1948) as *Coprinus schroeteri*. There is also a recent well-documented claim on the Mushroom Observer website, from California. So its presence in North America is not entirely unprecedented, but rare, no doubt owing to its diminutive stature, short life, and close resemblance to its congeners.

It is considered wide-spread but rare in Europe and has now been added to our Long Island checklist.

This article and the photos (by Joel Horman) was first published in the Spring 2013 issue of *LI Sporeprint*, the newsletter of the Long Island Mycological Club (LIMC).



THE IRREGULAR EARTH TONGUE, *NEOLECTA VITELLINA*

Story & photos by Igor Malcevski

Technical information provided by Joe Ammirati

At our October Fall Show I brought in a small cluster of *Neolecta sp.* from the Lake Wenatchee area. I don't remember seeing it at our previous shows, nor have I seen it before this year in the Lake Wenatchee area. It was of much interest to many people at the show and often photographed. At the show the consensus was that it was *Neolecta irregularis*. This bright yellow club-like earth tongue (often flattened and somewhat irregular in shape) occurs in conifer forests from summer well into the fall season. I didn't think much about this until I start-
finding them in quantities typically associated with white chanterelles (*Cantharellus subalbidus*). You usually would not see them till the chanterelle was removed. Could this particular earth tongue have a symbiotic relationship with white chanterelles? Why have I not seen this mushroom in previous years growing with white chanterelles?



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As the fall mushroom season progressed and regular rains began *Neolecta irregularis* started fruiting in the open without any direct association with white chanterelles. In past years, I have seen certain mushrooms dominate the forest floor and this year *Neolecta irregularis* and *Cantharellus subalbidus* fit that profile. I dried several samples and passed them on to Joe Ammirati who was able to do further studies. He determined that it was *Neolecta vitellina* which has somewhat smaller spores than *Neolecta irregularis*.

There are three species of *Neolecta*. *Neolecta vitellina* occurs in western and eastern North America and

Europe. *Neolecta irregularis* occurs in eastern North America and Asia. The third species, *Neolecta flavovirescens* occurs in South America. They are closely related species and are among the most ancestral ascomycetes, and have been called "fungal relics of the past". *Neolecta vitellina* has been reported to be physically attached to roots and may be a root parasite.



This article and the accompanying photos was first published in the Spring 2013 issue of the Snohomish County Mycological Society's newsletter, *MUSHROOMER*.

My Favorite Mushroom:

Mycena adonis

Jim Cornish

One of the joys of perusing my favorite walking trails is being surprised by the “new to me” species of mushrooms I find. But as I discovered during the Newfoundland and Labrador Foray in 2011, staying on a trail likely limits these discoveries to just a few species, especially if there is little change in habitat. When I returned to my walking trails after the Foray, I purposely went off the beaten track, hoping to find something new. On one of these jaunts, I found a cluster of real beauties growing in a wet sphagnum-filled hollow in a stand of black spruce—My guidebook identified them as *Mycena adonis*. One photograph with my macro lens and this mushroom instantly became one of my favorites.



Mycenaceae

As its name suggests, *Mycena adonis* belongs to the Mycenaceae family. With 10 genera and over 700 species, it is one of the largest families in the Fungi Kingdom. *Mycenaceae* are cosmopolitan in distribution and present in all ecological zones. They are saprotrophic and live on decaying stumps, logs, forest floor debris and on the bark of living and dead trees. The genus *Mycena* is the most populated (about 500 species worldwide) and the best and with at least 35 species documented, so far) the best represented of the *Mycenaceae* family throughout the province of Newfoundland and Labrador.

Rarely more than a centimetre in width, Mycenae are generally small and gray or brown in color. A few, like *M. adonis*, are brightly colored, making them easier to spot. Most mycenae also have a translucent striated cap and many produce a bleach, radish, iodine, or mealy odor when crushed. Most are difficult to identify to species without microscopic study. In North America, most mycenae go by their European names, a situation that is likely to change with DNA analysis. The edibility of most *Mycenae*

is unknown as they are considered too small to be useful in cooking. Since some contain toxins, adding the genus to your “what not to eat” list might be a good idea.

Mycenas are not without a few oddities. Thirty-three species are known to be bioluminescent, creating a glow commonly known as foxfire. One variety, *Mycena haematopus*, present in this province, bleeds red when the foot of the stem of a fresh specimen is cut.

***Mycena adonis* (Bull) Gray** is one of the prettiest species in a genus filled with “beautiful and elegant mushrooms” (Michael Kuo). The genus name “mycena” is derived from the ancient Greek word *mycēs* meaning mushroom. The specific epithet “adonis” refers to the Greek god of beauty and desire. *Mycena adonis* is one of the easiest of all mycenae to identify. Commonly called the scarlet bonnet, it has an orange to reddish conical to bell-shaped delicate cap typically less than 1.5 cm across and attached to a white fragile stem up to 4cm long and just a few millimetres wide. The gills are well-spaced, narrow, whitish, yellowish or reddish tinged and appear to curve upward to-



ward the stem. Two or three lamellulae (short gills) fill in the space between the longer gills. The cap is hygrophanous and fades to an orange buff color when dry. *M. adonis* grows singly or in clusters. Preferred habitats include acidic boreal forest soils and patches of *Sphagnum*. Unlike many *Mycenae*, the odor of *M. adonis* is indistinct.

Because of its color and delicate appearance, *Mycena adonis* reminds me of an old saying, “small things come in beautiful packages.”



This article and photos first appeared in the May 22, 2013 issue of *OMPHALINA* Volume III, No. 5. Photos are by Jim Cornish.

**The North American Mycological Association 2013 Foray
Shepard of the Ozarks, Arkansas – October 24-27, 2013**

**Jay Justice, Registrar
16055 Michele Drive, Alexander, AR 72002-9668 - justice@aristotle.net**

Complete all 3 pages of the registration forms and return them with a check payable to "NAMA Foray 2013."

Names: _____

Address: _____

City, State, Zip: _____

Phone and email: _____

Names and club affiliation for name tags: _____

Foray Registration (non-refundable)	# _____ @ \$65 each \$ _____
Foray Room and Board (3 nights and 8 meals) ¹	
Deluxe Room (King or Queen with private bath)	# _____ @ \$275 each \$ _____
Double Occupancy (2 King or 2 Queens with private bath)	# _____ @ \$265 each \$ _____
Economy Room (Bunk beds in Large Room)	# _____ @ \$225 each \$ _____
Meals only (Staying off site)	# _____ @ \$125 each \$ _____
NAMA Trustees meeting (2 nights and 6 meals)	
Deluxe Room (King or Queen with private bath)	# _____ @ \$210 each \$ _____
Double Occupancy (2 King or Queens with private bath)	# _____ @ \$200 each \$ _____
Economy Room (Bunk beds in Large Room)	# _____ @ \$175 each \$ _____
Meals only (Staying off site)	# _____ @ \$90 each \$ _____
NAMA membership (required if not current)	# _____ @ \$24/ \$29 each \$ _____
Late Fee (After September 1)	# _____ @ \$50 each \$ _____
Transportation to/from LR Airport (limited availability)	
Transportation to SOTO (Tuesday or Thursday)	# _____ @ \$15 each \$ _____
Transportation to SOTO and back to Airport on Sunday	# _____ @ \$25 each \$ _____

Total \$ _____

Do you require vegetarian meals or have other dietary restrictions? _____

We must have two signed releases (one from NAMA, one from SOTO) from each person attending the foray.

¹If you would prefer the one lodge that will allow you to avoid climbing steps, please specify this on your form.

Cancellation Policy: The \$65 Registration fee is NOT refundable
Full refund of remainder of paid registration until September 1, 2013
Refund of 50% of remainder of registration paid until October 1, 2013
No refund after October 1, 2013

Liability Release and Promise Not to Sue

By signing the form below, I hereby state that I understand there is some risk in participating in this mushroom foray and conference: risks one assumes by being away from home, risks associated with walking about in fields and woods, risks involved in eating wild mushrooms, risks of losing personal property by theft or misplacement, all other anticipated and unexpected risks. However, by registering for and attending this foray, I agree to assume total responsibility during this event 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, therefore, release the North American Mycological Association (NAMA) and the Arkansas Mycological Society (AMS), their trustees, officers, employees, contractors and any other persons assisting in the planning and execution of the NAMA 2013 Foray from liability for any sickness, injury, or loss that I or any minor children under my care may experience during the duration of this foray or as a result of attending and participating in this foray.

I further promise not to file a lawsuit or make a claim against any of the persons occupying the positions listed above, even if they negligently cause me or my minor children injury or loss.

Finally, I agree to hold NAMA and the AMS harmless from any liability that may be incurred as a result of any damages done to Shepard of the Ozarks' property which I may cause during the duration of the NAMA 2013 foray.

This release and promise is part of the consideration I give in order to be allowed to register and participate in this event. I understand that signing this form 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 1: _____ Date: _____

Print Name 1: _____

Signature 2: _____ Date: _____

Print Name 2: _____

Volunteer Options:

If you want to help in any way, please let us know by indicating the areas listed below how you would like to help. A NAMA representative will contact you with details prior to the foray advising you on those functions where you can assist.

Display & Identification area:

Set up _____ Assist Identifiers _____ Sunday Clean Up _____

Mycophagy:

Set up _____ Preparation (Sat.) _____ Clean up _____ Bring Mushrooms _____

Other areas _____

I will bring and donate the following items for the Silent

Auction: _____



RELEASE AND INDEMNIFICATION AGREEMENT

To be read and signed by each guest/visitor. Parents must sign for anyone under 18.

Shepherd of the Ozarks is located in the heart of the Ozarks and includes over 420 acres of beautiful woods and streams, waterfalls and caves, bluffs, ponds, natural springs and rolling open spaces. Any of the activities that can sometimes take place at Shepherd of the Ozarks, such as swimming, tubing/floating, fishing, canoeing, hiking or walking, backpacking, exploring caves, picnicking, sightseeing, visiting the petting zoo, horseback riding or petting the horses, Ropes Challenge Courses, Rock Climbing/Rappelling, Paintball, use of personal vehicles and occupying the cabins/lodges offer the possibility for personal injury or accidents for which all visitors must assume responsibility. Below is a list of a few of the dangers, but in no way includes all of them. For example, the water is very inviting, but drowning could occur. The creek can flood during hard rains. The bluffs are beautiful, but are deadly if someone should fall from them. Wildlife abounds and is interesting to watch, but animals can bite, skunks can spray, rattlesnakes and other poisonous snakes can be dangerous. The more domestic animals such as horses, buffalo, petting zoo animals, etc., seem tame but can be dangerous. Individuals can be harmed by falling from the stairs and high decks around the cabins. Ticks can carry Rocky Mountain Spotted Fever or other diseases. All ticks should be removed daily from one's body. Mosquitoes can carry West Nile Virus and other diseases. Roads on the property are gravel and rough, requiring slow and careful driving. Horseback riding can be hazardous and result in death or serious injury because horses can be unpredictable in their behavior, even with the most experienced of riders. Helmets are provided and recommended. Also, four-wheeler riding (if available) can be hazardous and can result in death or serious injury.

All visitors assume full responsibility for their safety in the above-mentioned dangers as well as the many dangers not specifically noted. Shepherd of the Ozarks carries no accident or health insurance on guests and visitors and accepts no responsibility or liability.

In connection with the lease of the property from Shepherd of the Ozarks, Shepherd Ministries, Pinnacle Acquisitions, Aldon J. and/or Barbara K. Macdonald, James L. and/or Michelle A. Miller and co-lessor(s) described therein, I hereby agree and covenant as follows, in consideration of the lease and the promises therein, the receipt and adequacy of which I hereby acknowledge:

1. Hereby to release and discharge lessors jointly and severally from, and to waive any and all causes of action, suits, claims, demands, rights, actions, judgments, and executions (including all damage and torts) in connection with said lease, the property, and the activities.
2. Hereby to indemnify, hold harmless and defend lessors from any and all causes of action, suits, claims, demands and torts, rights, actions, judgments, and executions (including all damage and torts) in connection with said lease, the property, and the activities, if brought by any lessee that I permit on the property during my lease or their legal representatives, spouses, heirs, or estates.
3. Hereby to covenant never to institute any suit or action at law or equity, not institute, prosecute, or in any way aid in the institution thereof, for damage, against any or all of the lessors in connection with said lease, the property and the activities. I hereby agree that this instrument may be treated as a defense to any lessees or in their behalf against lessors jointly and severally, and shall forever be a complete bar to the commencement and prosecution of any such or proceeding whatever, on account of damage to lessees.

4. Not to permit any guest to enter the property, or engage in the activities unless such guest has signed this release. I hereby acknowledge that NO PERSON HAS MADE ANY WARRANTY, WHETHER EXPRESS, IMPLIED OR OTHERWISE WITH RESPECT TO THE SUBJECT PROPERTY OR ACTIVITIES, OR ANY OTHER REPRESENTATION WITH RESPECT THERETO. I HEREBY ACKNOWLEDGE THAT THE ACTIVITIES ARE INHERENTLY HAZARDOUS ACTIVITIES, AND THAT I AM ASSUMING ALL RISK VOLUNTARILY IN CONNECTION WITH THE PROPERTY AND THE ACTIVITIES.

5. As used herein, "lessors" shall mean Shepherd of the Ozarks, Shepherd Ministries, Pinnacle Acquisitions or Aldon J. and/or Barbara K. Macdonald, James L. and/or Michelle A. Miller and any co- lessor(s), the spouses thereof, the legal representatives and the businesses thereof;; "activities" shall mean any and all use by vehicles, of the buildings, and all other activities in connection therewith;; "lessee" shall mean the undersigned, the spouse thereof, the children thereof whether minor or adult, the invitees, and other guests thereof whether minor or adult, and other users in connection therewith;; "damage" shall mean any past, present, or future damage, costs, compensation, or loss of services for or on account of, any damage, loss, injury or death, to person or property or both, past, present or future.

6. This release may be amended only in writing signed by the undersigned parties. It binds and benefits the heirs and estates of the parties, but may not be assigned. It is governed by Arkansas law. Its terms are severable. Its rights and remedies are not waived by exercising any oral statements. It is effective as soon as the release is signed by Lessee and /or when Lessee first enters the property whichever occurs first and supersedes any oral statements. Lessee executes this release on behalf of itself and on behalf of its minor children (whether or not adopted) as legal guardian and next of kin.

NO PETS, ATVS, ALCOHOLIC BEVERAGES, ILLEGAL DRUGS, SMOKING, OR WEAPONS OF ANY KIND INCLUDING PAINTBALL MARKERS ARE ALLOWED ON SHEPHERD OF THE OZARKS PROPERTY.

Note: All guests/visitors must sign this release prior to occupying cabins or lodges or engaging in any activities. Parents or legal guardians must also list children under eighteen years of age.

Signature of Guest/visitor (Lessee) _____ Date

Signature of Parent or Legal Guardian (If guest/visitor is under age 18) _____ Date

Please Print First and Last Name As Signed Above

Please list Children under eighteen years of age below:

For more details on the NAMA Foray and registration and waiver forms, follow this link:
<http://www.namyco.org/events/NAMA2013/index2013.html>

North American Mycological Association
c/o Ann Bornstein
61 Devon Court
Watsonville, CA 95076

Change Service Requested

Newsletter of the North American Mycological Association

THE MYCOPHILE



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