

VOLUME 24:9 MAY 2012



# SPEAKER OF THE MONTH Alan Rockefeller

May 17th at 7pm

## **Mushrooms of Mexico**

Alan Rockefeller recently returned from four months of collecting in Mexico with extensive field work in the states of Jalisco, Colima, Michoacan, District Federal, Puebla, Veracruz and Oaxaca. His presentation, "Mushrooms of Mexico," includes many images of Mexican mushrooms which Alan has taken over the past five years. The talk features edible, poisonous, and psychoactive mushrooms from seven states, DNA sequences, phylogenetic trees, micrographs, and mushroom food.

Alan is studying the mushrooms of California and Mexico. He has been researching the taxonomy of macrofungi in Mexico for the past five years. When he is not photographing mushrooms he is busy sequencing fungal DNA, and photographing the microscopic features of mushrooms.

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#### CALENDAR

May 17th — Speaker at Farm Bureau at 7pm Alan Rockefeller

#### LIMERICKS BY CHARMOON

If you want to hunt the bolete You must learn to be very discreet Watch where you park Get back before dark And examine before you eat

I picked a coral mushroom once in My early days of shroomin' It tasted just great But increased my heart rate And pink spots appeared on my skin

#### EMERGENCY MUSHROOM POISONING ID

After seeking medical attention, contact Darvin DeShazer for identification at (707) 829-0596. Photos should be emailed to: muscaria@pacbell.net and need to show all sides of the mushroom. Please do not send photos taken with cell phones – the resolution is simply too poor to allow accurate identification. NOTE: Always be 100% sure of the identification of any and all mushrooms before you eat them!

This is a free service for hospitals, veterinarians, and other concerned citizens of Sonoma County.

THE SONOMA COUNTY MYCOLOGICAL ASSOCIATION (SOMA) IS AN EDUCATIONAL ORGANIZATION DEDICATED TO MYCOLOGY. WE ENCOURAGE ENVIRONMENTAL AWARENESS BY SHARING OUR ENTHUSIASM THROUGH PUBLIC PARTICIPATION AND GUIDED FORAYS.

### FROM THE FRONT DESK

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# **President's Letter**

A gap appeared in the series of storms that moved through Northern California and the April Foray occurred under clearing skies. It drew about 30 people on a warm, bright Saturday to Salt Point. About one third to half the attendees were there for the first time. Many found enough edible wild mushrooms to at least enjoy the thrill of the hunt and sample the taste of perhaps their first wild mushroom. There were many wild flowers in bloom along the trail that contributed to everyone's enjoyment of a hike through the woods.

Jenny Talbot, a NOAA Climate and Global Change Postdoctoral Fellow at the University of Minnesota, spoke to SOMA of her work to identify how individual fungal species transform the chemical and physical structure of soil organic matter via complex, below-ground biochemical pathways. She noted that understanding the process is one of the greatest challenges in ecology research. Most of her discussed work was done in parts of the Alaskan boreal forest. She identified the culprits that consumed many of her test samples and named the arctic hare as the most likely perpetrator. No animals were injured during her experiments nor subsequently. The audience was very impressed with her knowledge, the quality of her work and how hard she must have worked to develop the information she presented.

Items in no particular order:

**SOMA Board of Directors for 2012/2013 will be:** Amy Beber Vanzo; Ben Garland; Karen Kruppa (Treasurer); Patrick Hamilton; Lee McCarthy-Smith; Chris Murray; Julie Schreiber; Jim Wheeler (President); Gene Zierdt (Secretary); Rachel Zierdt.

A noticeable name is absent from the list, Linda Morris, the SOMA Camp Director for the last 2 years. Linda will pause for a while. She has led SOMA Camp with dedication, thoughtfulness, and with a fine ear. We appreciate all the time she spent and the high quality of the camps she directed. SOMA Camp has become known internationally and is a featured destination for many mycologists. We know her deep appreciation for the support from many others that helped make each camp a success. Many, many thanks to Linda for her significant contributions to the group.

A SOMA Annual Report will be published this fall. We need to comply with the SOMA By-Laws and to follow best practices for non-profit organizations. Our income exceeded the minimum amount that requires a report to the membership. As a short update to you, current bank accounts exceed \$40,000 and SOMA membership is slightly over 300 names. Both are significant increases from 5 years ago.

Camp 2013 planning is underway and there will be announcements in September to fill in some of the details.

The SOMA version of a Concessionaire Contract, to manage **Wild Mushroom Collection Permits at Salt Point State Park**, has been completed and submitted. There are many details to discuss and review with the State Park Rangers. That process will begin soon.

**Foray Find in April:** Red-Eddie Bauer jacket . . . used, but in good shape.

Best Regards – Jim Wheeler

# Fungal Fiber Arts –Looking Back and **Planning Ahead**

Dorothy Beebee ©2012

"In the beginning, (1968, as near as any of us can remember), while artist Miriam C. Rice was teaching children about natural dyes in a class at the Mendocino Art Center, in Mendocino, CA, she began experimenting with natural dyes to make her own inks for her own block printing art. During that time, she happened to go on a mushroom foray, led by the late eminent mycologist, Dr. Harry Thiers, to learn about the identification of local edible mushroom species. Shortly thereafter, (always eager to combine the best possibilities of both worlds), Miriam took a clump of sulphur yellow Naematoloma fasciculare mushrooms, and tossed them into a dye pot with a bit of wool yarn. Fortunately, (for all of us,) this action resulted in a clear bright lemon yellow dye and voila! "mushroom dyeing" was born!"

And this is how it always starts out, a recounting of any "history" of mushroom dyes - so now, 44 years later, where does it go? The history and processes have been well documented in Miriam's three books (alas: all out of print right now...), the art of mushroom dyes is practiced world wide thanks to her enthusiastic endeavors, with the next *International Fungi & Fibre Symposium* being scheduled near Barcelona, Spain in October 2012 http://iff2012.org/home.html

...the history continues...

#### The Invitation Still Stands... Stay with, join in, and pass it on! My thanks and gratitude to all contributors and their contributions to the expanding knowledge of and continuous experience with mushrooms for color and texture. The mushroom colors reveal and evoke an evermore delighted squeal of joy as the third generation discovers anew the fruits of over thirty years acquaintance with each other through the fungal kingdom. Miriam C. Rice, Director, International Mushroom Dye Institute

But what about here at SOMA Camp? Miriam was invited to teach a Mushroom Dye workshop at the very first SOMA Camp at the old soccer Camp in Mendocino County - how many years ago? - and in many subsequent Camps all over the map. She introduced Polypore Papermaking, and Myco-Stix at several, until finally she handed over the SOMA teaching reins to two of her dye and paper-making apprentices, Dorothy Beebee and Catherine Wesley in 2000. And, so now, 12 years later. Dorothy and Catherine are also moving on to other ventures as well, with the hopes that some of their former students will now take over in organizing and teaching! It is time for that next generation to take the lead!

These are my hopes for SOMA Camp 2013:

- ~ Continue with the Introduction of Mushroom Dye classes for the "newbies", that would include an introduction to ID and the collecting foray of dye mushrooms around Camp...
- ~ Add a **Lichen Dye** workshop that would include an Introduction to lichen ID and a local foray to view and collect around Camp
- ~ Reintroduce **Polypore Papermaking** as a "hands on" workshop
- ~ Continue with, and perhaps expand the popular Felting, Shibori, and Textile Design & Painting workshops, and perhaps add an exciting new fungi & fiber workshop as yet un-named? Any ideas?

Yes, this will all take a lot of planning and preparation, and we are starting NOW - yes, this summer - forming a Fungal-Fiber Arts Planning Committee to plan for 2013 SOMA Camp. If you would like to be involved in this planning and instruction, please contact me immediately, online at dbeebee@sonic.net or call (707) 887-1300.

An essential part of planning the Fiber Art Program is the **COLLECTING** of dye and papermaking material well ahead of time. (I cannot emphasize this enough!) I would love to see sub-foray groups on the big Saturday SOMA forays dedicated to this type of collecting,



folks who are committed to something else besides collecting 5 lbs. for their tummies - yes, we all know how much a Phaeolus schweinitzii weighs! - (And how much trouble you can get into with a park ranger for one that is over 5 lbs!) We would collect **dye mushrooms**, polypores, and lichens ahead of time for the workshops – and this would also include the ID, classification, drying and preserving, and STORING of the fungi and lichens for the workshops. I will stay on in an advisory capacity for this next year, but need others to assist in the teaching, collecting, and storing of equipment and materials.

Papermaking equipment (screens and deckles) can be easily made ahead of time - we already have a volunteer carpenter! - basins, buckets, and screens for drying can be collected second-hand. But we need an instructor, who not only know how to teach papermaking but how to identify the best polypores to use...

Looking forward to hearing from those of you who want to be involved in continuing the very popular Fiber Arts program in SOMA Camp!!!

## **CANDY CAP ODOR – THE MYSTERY SOLVED**

Dr. William Wood

For years mushroom hunters have actively sought the "candy cap" mushroom, *Lactarius fragilis* var. *rubidus*. When it is dried, this mushroom has an intense and persistent fragrance. Because of the distinctive and pleasant smell of these mushrooms, they are frequently used as flavoring in dessert foods, such as cookies, cakes, breads or ice cream.

The mushroom's scent is usually described as being like maple syrup, but has also been said to smell like butterscotch, fenugreek, or burnt sugar. The chemicals responsible for the smell of these mushrooms have been recently identified. This discovery resulted from collaboration between Darvin DeShazer, the scientific advisor of the Sonoma County Mycological Association (SOMA), and William Wood, a chemist at Humboldt State University.

Wood and DeShazer started this project over 25 years ago. The identity of the compounds responsible for the maple syrup odor proved elusive. Early attempts to identify the odor compound in extracts of dried candy caps failed. Finally, the gases escaping from the dried mushrooms were trapped and analyzed. A chemical called

quabalactone III was identified as a major volatile compound. On contact with water quabalactone III changes to another compound that has the name, sotolon. Sotolon is a commercially available flavoring used in food and other products. At low concentrations sotolon has a pronounced maple syrup-like odor. Surprisingly, the chemicals found in this mushroom are not in natural maple syrup.

The volatile chemical that flavors candy caps was originally identified in the flowers of the Mexican tree, Rosita de Cacao. The Aztecs were known to mix these flowers as a flavoring in chocolate drinks. The name quabalactone III is derived from the scientific name of this tree, *Quararibea funebris*.

The odor causing chemical, quabalactone III, is not present in living candy cap mushrooms. It is only found in dried mushrooms. Wood and DeShazer theorized that on drying, free amino acids in the fresh mushroom react to form quabalactone III. This research was published in the journal, *Biochemical Systematics and Ecology* [Volume 43, 51-53 (2012)]. The abstracts, highlights and chemical formulas for this article are online at <a href="http://www.sciencedirect.com/science/article/pii/S0305197812000385">http://www.sciencedirect.com/science/article/pii/S0305197812000385</a>



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## **ATTENTION ALL ARTISTS!**

The SOMA Board of Directors is looking for talented artists to submit original artwork for our 2013 SOMA camp official t-shirt. This year, Dorothy Beebee produced an exceptional graphic using mushrooms with the "hidden" letters of SOMA integrated in the picture. We encourage those of you who took the drawing class at camp with David Gardella – as well as those who didn't – to come forward and share your artwork. The winning artist will be given a free t-shirt, recognition and gratitude. All artwork will be returned to the artists. All entries must be submitted by June 1st, 2012. It's winter now, so use your extra evening hours indoors to refine and finish up what you started, or begin again with a new inspiration.

Please bring entries to regular meetings at the Farm Bureau or contact Rachel Zierdt at <a href="mailto:rzierdt@gmail.com">rzierdt@gmail.com</a>.

## **SALT POINT STATE PARK REPORT**

Michael Miller

Our last Salt Point foray of the season was on a spectacular spring day at the coast; warm in the 70s with clear skies, so our Fearless Leader, Jim Wheeler, left our rain awning in storage. Any other time of the mushroom season this would be tempting Fate, but with weather forecasts of 80 degrees we were pretty safe.

About 30 people joined us at the Woodside Campground. You could say this was a large group considering the lateness of the season and the absence of positive reports from the field, or a small group considering the blissful weather. Either way you look at it, it was a great bunch of folks with lots of enthusiasm.

We took a group on a road trip up Kruse Ranch Road while others cruised the campground or headed up the hill on the Central Trail. While huge hauls of tasty fungi were not the order of the day, most people found hedgehogs, black trumpets, or chanterelles, and lots of other species were brought in. George Riner provided I.D. and I received e-mails with kudos for George teaching newcomers a lot about mushrooms. I personally started at SOMA by bringing my fungophile son when he was 10 to learn more about mushrooms

than he could learn from his books. At 17 he is still an avid fan and a foray leader.

When we all returned from the woods we had an excellent pot-luck lunch. Everyone declared it to be a good foray and a great time at the coast. We were all sorry it was the last foray of the season.

It's a good time to reflect on the last several months. Hundreds of hunters showed up at the Salt Point forays – with about half of them newcomers who were having their first experience with mushroom hunting – and learned a lot about the fungal world from George, Darvin, and others who helped with I.D. Sensational meals were cooked. New friends were made and old friends reconnected. Whether they found a handful of hedgehogs or a basketful of boletes, no one ever looked disappointed. Rain or shine, everyone had a great time at the coast.

There are a lot of thanks to go around for the Science Advisors, foray leaders, cooks and everyone who made these forays such a great experience. The greatest thanks must go to our president Jim Wheeler who brings the tent and supplies, organizes everything and keeps us all on track. It's been a great time and we hope to see you all back in September.

## **FORAY SPECIES LIST**

George Riner

Amanita – a grey grisette

*Amanita muscaria* – a beautiful triplet of development stages

Amanita pantherina

*Amanita vernicoccora* – 1 pristine collection!

Ascomycota Phylum

Caloscypha fulgens

Cantharellus formosus – one sad beat up specimen

Clitocybe gibba – or maybe now it's Infundibulicybe gibba

Coltricia cinnamomea

*Cortinarius* – one each of 2-3 other species

Cortinarius phoenicius v occidentalis – just 1

Craterellus tubaeformis

*Crepidotus* – small brown scales on top & brown spore print

Entoloma – several large-ish grey-caps with a truncate umbo

Fomitopsis pinicola

Helvella lacunosa

Hydnum repandum/umbilicatum

Hygrocybe coccineus

*Hygrocybe flavescens* – or large yellow all over Hygr.

*Hygrocybe psittacina* – lots

Inonotus tomentosus

*Jhanoporus hirtus* 

Laccaria amethysteo-occidentalis - HUGE and malformed

Lactarius deliciosus

Lactarius fragilis group

Lactarius rufulus ? – a couple large dark ones

Lactarius xanthogalactus

Lenzites betulina

Lycoperdon molle/umbrinum

Mycena pura

Pluteus cervinus-ish

Pseudohydnum gelatinosum

Russula – the usual JAR's

Trametes versicolor

*Tricholomopsis rutilans* – a sizeable specimen in great shape

Turbinellus floccosus

*Verpa conica* – a bit dried out

### **JOIN SOMA!**

Membership in the Sonoma County Mycological Association (SOMA) is a great way to meet and interact with other mushroom enthusiasts, learn more about identifying fungi, and share interests such as cooking and cultivating mushrooms. Sure, most of what SOMA does is open to the public, but wouldn't you rather join SOMA and get all the goodies?

Check out our membership page on the web...

http://somamushrooms.org/membership/membership.html

### **SOMA**

PO Box 7147 Santa Rosa, CA 95407

# Issue 24:9 MAY 2012

SOMA usually meets on the third Thursday of the month throughout the year (September through May), at 7 PM, at the Sonoma County Farm Bureau, 970 Piner Road, Santa Rosa, California. Fungi are displayed at 7 PM, and speakers begin around 7:30 PM. Bring in your baffling fungi to be identified!

### **Directions to the Sonoma County Farm Bureau**

#### From the south:

- Go north on Hwy 101
- Pass the Steel Lane exit then take the Bicentennial Way exit
- Go over Hwy 101 (heading west) and then right on Range Ave
- Turn left on Piner Rd and go about 1/4 mile
- Turn left into Farm Bureau parking lot at 970 Piner Rd

#### From the north:

- Go south on Hwy 101
- Take the first Santa Rosa exit for Hopper Ave/Mendocino Ave
- Stay left on the frontage road (it becomes Cleveland Ave)
- Turn right on Piner Rd and go about 1/4 mile
- Turn left into Farm Bureau parking lot at 970 Piner Rd

