# NJMA NEWS

THE OFFICIAL NEWSLETTER OF THE NEW JERSEY MYCOLOGICAL ASSOCIATION

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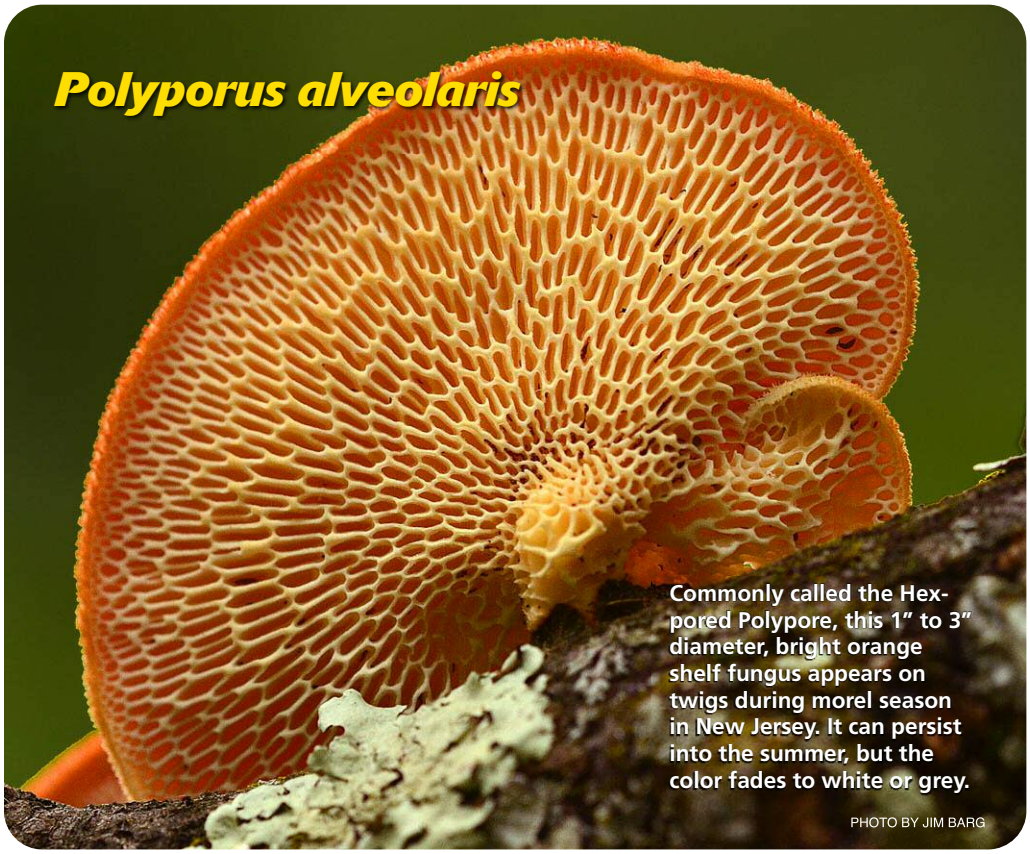
**908-227-0872 for information on NJMA events or cancellations due to bad weather.** *It is NOT for general inquiries or to contact officers!*




Commonly called the Hex-pored Polypore, this 1" to 3" diameter, bright orange shelf fungus appears on twigs during morel season in New Jersey. It can persist into the summer, but the color fades to white or grey.

PHOTO BY JIM BARG

## WHAT'S INSIDE:

# PRESIDENT'S MESSAGE

By the time you read this, our first foray of the season will be upon us, at Princeton Institute Woods on May 7th. It's about time. After some warm days in March followed by a long cold, rainy period in early April, a few warm days have brought out the lawn mowers, daffodils are in full bloom, and the oak trees are budding. But still very few fungi. March and April seem to be the least productive months for fungi. But by May we will be seeing some fresh fungi in addition to the morels we all covet.

After our traditional Princeton foray on May 7 led by Virgina Tomat, we have the Bob Peabody Wild Foods Foray on June 4 at Deer Path Park led by Bob Saunders. These warm-up events ease us into the collecting season that begins in late June. We usually find a few fungi at Princeton, even when the morels are as sparse as they have been in recent years. I would like to draw your attention to four other early season opportunities to collect and identify fungi. We have been invited to participate in three Bioblitzes and the Pequest Open House has been rescheduled from March to early June when there is a better chance of finding fungi to show the public. See the article by Nancy Addotta on *page 3* for details.

Although we don't hold forays during the latter part of May and early June, I have the impression we should find a fair number of fungi during this period. To test out my impression, I put together a Checklist of Fungi Collected in May. The list includes collections on our Princeton forays in early May from 2007 to 2016, and collections from Franklin Parker Preserve in May of each year since 2011. In addition, Nina and I collected at a walk with Tina Ellor in south Chester County, PA in May 2016. We visited the Ted Stiles Preserve at Baldpate with Patricia McNaught, Liz Broderick, and Igor Safonov in May 2016. Melanie Spock and Nina and I participated in a Bioblitz at Ocean County Park in Lakewood.

We never find more than 20-30 species on any one May outing, but the checklist includes nearly 150 species including 12 new to the NJMA list. Not surprisingly, wood-dwelling fungi such as Ascomycetes, polypores, and jelly fungi dominate the May Checklist. But about one-third of the species are mycorrhizal or gilled saprobes. There were 20 or so mycorrhizal species spread across 11 genera including various Boletes, Laccaria, Russula, Amanita, and Inocybe as well as about 35 gilled saprobes (Coprinus, Galerina, Gymnopus, Marasmius, Mycena, Pholiota, Pluteus, Psathyrella). Species of Morchella and at least one poisonous look-alike, Gyromitra, are also represented. If you would like a copy of this May Checklist, please send me an email (*johnab190007@gmail.com*). If you would like to go collecting in May or early June, please consider joining us at one of the forthcoming Bioblitzes or at Franklin Parker Preserve on Sunday, May 28th. If you plan to come to Franklin Parker, please contact Nina Burghardt (*jnburghardt536@gmail.com*) .

Summer is less than two months away, but there are many spring fungi to be found in the meantime. And the more eyes, the better. Hope to see you in the woods.

*– John Burghardt*

# IN MEMORIAM: DONALD ECKER

Long-time NJMA member Donald Ecker passed away on January 2, 2017. He was a passionate fisherman, writer on sport fishing, and advocate for preserving the watersheds that support sport fishing in New Jersey. The Eckers joined NJMA in 1976. In recent years, Donald frequently attended NJMA meetings and Culinary Group dinners with his wife Barbara. He will be greatly missed. We extend our sympathies to Barbara and her family.

*– John Burghardt*

Visit the NJMA Discussion Group

facebook

http://tinyurl.com/jjualgz

## WELCOME TO THE ONLINE EDITION OF NJMA NEWS

For the great majority of you who are viewing the online PDF of this newsletter, please note that **most web links and email addresses are clickable.** Clicking on a *blue* web or email address will launch your web browser and take you to the specified page or open your email software so you can send an instant email. Just look for the "click finger" when you hover your mouse over these items.

## ARE YOU DRAWN TO DRAWING MUSHROOMS?

We are always interested in receiving accurate hand drawings, sketches, or artwork in any variety of media to grace our pages. While we cannot guarantee that your work will be published, we do file each submission and consider it for use either in conjunction with specific articles or for use as backgrounds or supplemental art when needed. You retain your copyrights and you'll be credited in all cases.

Contact our Art Director Jim Barg at **jimbarg@bssmedia.com** for more information or to submit your work.

# PUBLIC OUTREACH: A GOOD START

*by Nancy Addotta*

Our program kicked off on March 18 with two events: The Mercer County Greenfest in Lawrenceville, which was covered by Virginia Tomat and Richard Kelly, and the Georgian Court University Wellness Expo in Lakewood, covered by Carol Raine and Nancy Addotta. Both events were well attended. NJMA collected 37 names and email addresses from people who said to keep them informed of upcoming club activities. The Georgian Court Expo held a Chinese Auction where NJMA donated two one-year memberships won by Paul Stenzel and Dominique Robert. Congratulations and welcome to NJMA!

***Upcoming Public Outreach Events:***

- Mount Rose Preserve BioBlitz, Hopewell Township, Mercer County. Saturday, May 20, 2017. Walk from 9:30am - 11:30am. Contact John Burghardt (***johnab190007@gmail.com***)
- Ernie Oros Wildlife Preserve BioBlitz, Woodbridge Township, Middlesex County. Saturday, June 3, 2017, 9:00am -3:00pm, Contact Nancy Addotta (***stovetop2@aol.com***)
- Pequest Open House and Sportsmen's Flea Market, Pequest Fish Hatchery, Oxford, Warren County, June 3, 2017, 10:00am - 4:00pm. NJMA will have a booth. Contact Jim Richards (***jimrich17@icloud.com***)
- Union County BioBlitz, Warinaco Park, Roselle Park, Union County, June 17, 2017, 9:00am - 4:00pm. Contact Dorothy Smullen (***dsbs@verizon.net***).

There will be many more announced in the future.

I'm sure there are many more people just waiting to learn about our club, and our outreach program is a great source for reaching them. Our program only works if we have people to man the tables. So, please think about volunteering for a few hours at an upcoming event. You'll get a chance to meet some new and interesting people.

Thanks to all who help to make our events successful. Call Nancy Addotta, 732-738-4333, for more info.

# BYTES, BITS, & BITES

**TASTY LITTLE TIDBITS FROM OUR MEMBERS**

*from **Restaurant Hospitality**:*

An opinion piece that is must reading: "Why restaurants should care about the distinction between foraged ingredients and purchased forage"

***http://tinyurl.com/mz44txz--***

*from Judy Glattstein:*

Mushrooms that glow in the dark

***http://tinyurl.com/n796d6v***

*(more BBB on page 8)*

# DIVERSITY, ECOLOGY, AND EVOLUTION OF MYRMECOPHILOUS OPHIOCORDYCEPS

*by John Burghardt*

João P.M. Araújo, our speaker on March 12, came to us from Minas Gerais, Brazil by way of Penn State University, where he earned a Ph.D. in biology. João has a passion for fungi, especially for members of the *Ophiocordyceps unilateralis* complex, which use "zombie ants" for spore dispersal. João has collected and studied members of this group from tropical regions in the Brazilian Amazon, West Africa, and North America, and has named more than a dozen new species. The term "Myrmecophilous" ("ant-loving") in the title refers to organisms living in close association with ants, including pathogenic ones. Before, zeroing in on *Ophiocordyceps unilateralis*, the talk provided background on the diversity, ecology, and evolution of fungi that are parasitic on insects *i.e.* "entomopathogenic".

Although we seldom concern ourselves with fungi that don't produce mushrooms, it's worth highlighting the diversity of fungal parasites on insects. They have evolved in five of the major groups of fungi, as well as the closely-related non-fungal group, Oomycetes. Fungi have conquered diverse insect hosts, at all stages of development (egg, larva, pupa, adult), all across the world.

Oomycetes are a distinct lineage of fungus-like organisms. They are primarily plant pathogens, but twelve species in six genera are parasites to insects, especially mosquitoes.

Fungi that are parasitic on insects come from five major groups:

**Microsporidia** are spore-forming unicellular parasites once considered protozoans, but now known to be fungi. It comprises 143 genera, of which 69 attack insects. Microsporidia attack 14 orders of insects, the broadest range of all the major groups of fungi.

**Chytrids** are an early, primarily aquatic, sister lineage of Ascomycetes and Basidiomycetes. They reproduce asexually through zoospores that propel themselves through the water with small tail-like structures. Several genera of Chytrids have only one species that attacks insects, but one genus, Coleomyces, has 63 insect attacking species. The great majority of chytrid infections affect the insect genus Diptera (black flies, mosquitoes and other flies).

**Entomophthoromycota**, a recently recognized phylum of fungi, are mainly pathogens of insects. They have specialized spore-producing cells that obtain energy directly from sunlight. Spores are usually discharged forcibly. In contrast to Ascomycetes and Basidiomy-

# NYMS GANODERMA WORKSHOP

*by Nina Burghardt*

John and I recently attended a Ganoderma workshop presented by Matt Schink, for the New York Mycological Society. If you are a *Mushroom Observer* devotee, you are probably familiar with his name.

There are two basic groups of Ganoderma. The laccate Ganoderma have a layer of natural resin which give the cap a lacquered look. These are commonly called "mahogany shelf". Non-laccate Ganoderma do not have resin on top; it is infused through the entire fruiting body, giving the fungus a dull appearance.

We have two non-laccate Ganoderma in our area; *G. applanatum* and *G. lobatum*. The larger of the two is *G. applanatum*. It is commonly called the "Artist's Conk". Bernice Fatto used to make beautiful woodland scenes by scratching the pore surface with a stylus. There is often a dusting of brown spores on the cap. This is not caused by gravity or the wind, but apparently by static electricity. The scientists are still trying to figure this out. *Ganoderma lobatum* is smaller, with a cap surface that cracks with pressure from a fingernail. Very often it grows in a conical (lobed) shape. It is an annual, often growing underneath the last year's dead shelf, while *G. applanatum* is a perennial adding live layers of tubes each year.

The laccate Ganoderma used to be divided into two groups, one favored conifers (we called those *G. tsugae*) and the other favored hardwoods (which we called *G. lucidum*). DNA has proven this not to be true. Laccate Ganoderma are red, orange, or yellow, often with a bluish hue. They are commonly referred to as "Varnish Shelf". They are annuals. The species we are likely to encounter are: *G. curtisii, G. tsugae, G. sessile* and *G. resinaceum.*

*G. curtisii* usually has a stipe (stem) where it is attached to the tree. It generally grows on hardwoods, but can also be found on conifers. It has a melanoid resin (brown streaks) when cut. This is most notable in the stipe. *G. curtisii* often has a bluish cast. In our area it is probably the most frequently found of the laccate Ganoderma.

*G. sessile* is small to medium, reddish with a yellow to white margin. It grows on maple, oak and some conifers. It lacks a stipe (sessile), tending to grow at the base of a tree in overlapping layers. Sometimes it exudes a resin that might serve as a defensive against insects. The brown melanoid streaking is lacking in the context (flesh), but may be found where the shelf attaches to the tree (or root).

*G. tsugae* is found mostly on hemlocks and willow. It has a red cap with a white or yellow margin and no melanoid streaking.

*G. lucidum*, (which we used to call everything grown on hardwoods), is a European species. It is also found in some select areas of California and Utah. *Lingzhi* or *Reishi,* the mushroom they use in China and Japan for staying healthy, only grows in Asia.

For those of us who have microscopes, Ganoderma have brown, round or oval, double walled spores with pillars joining the two walls. Both *Ganoderma applanatum* and *G. lobatum* have rough spores making them look like they have the measles. *G. curtisii* and *G. tsugae* have roughened spores, while *G. sessile* and *G. resinaceum* have smooth spores. Matt has discovered that if you shine a light from above on your specimen while you are looking at it under the microscope you will get a sort of 3D image as well as seeing the color of the spore. I will try this method this summer. I discovered that a black light shows up the melanoid streaks better than the naked eye.

Once again, this workshop brought home the old adage: "The more you know, the less you know".


# NEW FORAY LOCATION: LAKEWOOD, NJ

*by Nina Burghardt, Foray Chair*

On October 1, we will foray at Ocean County Park in the middle of Lakewood. This was the summer home of John D. Rockefeller from 1902 until he died in 1937. He put in tennis courts, a golf course, three lakes, and lots of trees.

Some of the trees he planted in this 323 acre park are White Pine, Norway Spruce, and Hemlock, as well as specimen trees from other parts of the country. Parts of the estate still have the typical New Jersey outer coastal vegetation. The mix of trees should make our foray quite interesting.

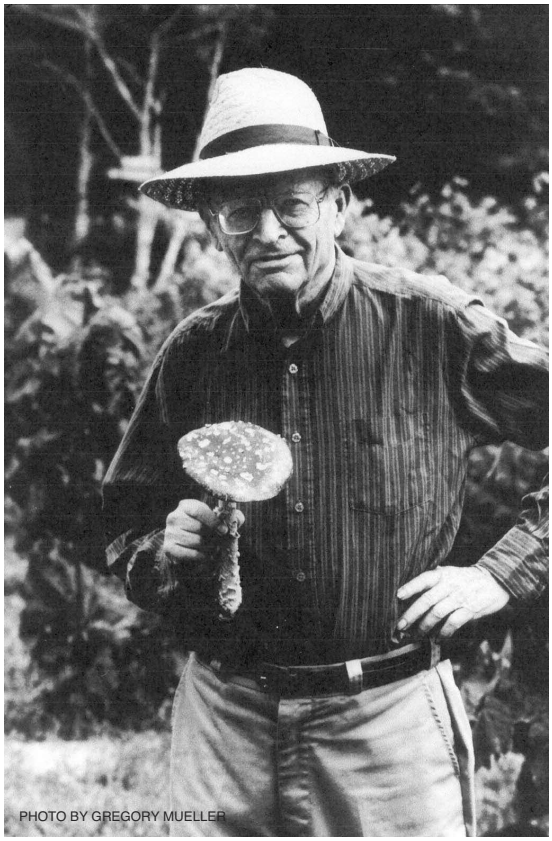
Nancy Addotta organized an outreach in Lakewood at the beginning of the year. She said that many people were interested in learning more about NJMA. Chris Claus, the Ocean County Naturalist, is eager to have us come and document what mushrooms are growing in the park. Ocean County Park is located at 659 Ocean Avenue (NJ Route 88) in Lakewood, NJ.

# WHO'S IN A NAME?
## *Hygrocybe singeri*

*by John Dawson (sixtieth in a series)*

*Hygrocybe singeri*, illustrated on pp. 108–109 of Bessette, Roody, Sturgeon and Bessette's *Waxcap Mushrooms of Eastern North America*, is among the slimiest of all mushrooms: so slippery, according to A. H. Smith and L.R. Hesler's original description of it, that it is difficult to hold on to. It was named *Hygrophorous singeri* by them in honor of Rolf Singer, who is considered "one of the most influential figures in the history of mycology"[1] and who, himself, later transferred that species to the genus *Hygrocybe*.

Singer was born 23 June 1906 in Schliersee, Germany, and died on 18 January 1994 in Chicago. His interest in mushrooms began when he was a young boy, and his first publication in mycology appeared in 1922, when he was just sixteen years old. (His last was published the year of his death, in the proceedings of a mycological colloquium held in 1991.) During his long career, he was the author or co-author of 439 publications in six languages[2] and described 2452 specific or infraspecific taxa of fungi, primarily agarics, in 246 genera, the holotypes of which he deposited in 40 different herbaria around the world. His most famous publication, *The Agaricales in Modern Taxonomy*, was first published in 1986 and remains the standard reference for many agaric genera; for, remarkably, many of the taxa he delineated based on morphological characteristics have turned out to accord with phylogenetic hypotheses later developed using molecular characters.[3]




*Rolf Singer with* ***Amanita muscaria***

As his colleague Gregory Mueller rightly declared, "Few scientists had as full and adventurous a life" as Singer.[4] The only son of a painter, Albert Singer, and his wife Eva, young Rolf was educated at the Gymnasium in Pasing and Amberg, went on to study chemistry at the University of Munich, and then moved to the University of Vienna where, in 1931, he was awarded a doctorate in botany for a dissertation on the genus *Russula*. After that, he briefly returned to Germany, but because of his participation in anti-war activities in prior years[5], he was forced to flee back to Vienna (on skis, over the Alps) when the Nazis came to power in 1933. There he met and married Martha Kupfer, and shortly afterward, moved with her to Spain, again in an effort to escape from the Nazis. But after serving just one year as an assistant professor at the Autonomous University of Barcelona, Rolf was arrested by Fascist officials of the Spanish government, who, however, decided not to extradite him to Germany, but sent him instead to France, where he worked for a year at the Natural History Museum in Paris.

Singer then accepted an invitation to conduct research at the Botanical Garden of the USSR Academy of Sciences in Leningrad.[6] He remained in Leningrad for the next five years, until forced to flee from the Nazis once more, just before their terrible siege of that city; and during that time, because his Viennese doctorate was undervalued in Russia, he also earned a Doctor of Biological Science degree from the Academy, for a dissertation in Russian that prefigured his great treatise on the Agaricales.

From Leningrad, the Singers travelled all the way across the USSR to Vladivostok and thence to the USA where, in 1941, Rolf was appointed Assistant Curator of the Farlow Herbarium at Harvard. While at the Farlow he made collecting trips to Florida, which so whetted his interest in tropical fungi that he and his wife subsequently spent twenty years in Argentina. From 1948 to 1960, he served as head of the botany department at the National University of Tucamán and from 1960-1968 as head of the biology department at the University of Buenos Aires.

In 1968, the Singers finally returned to the US and settled in Chicago. Rolf worked as a Resident Research Associate at the Field Museum of Natural History for 25 years and taught courses at the University of Illinois at Chicago from 1968 to 1977.

*(continues on next page)*

[1] As attested by Gregory M. Mueller and Qiuxin Wu in their "Summary of Rolf Singer's contributions to myco-logy", pp. 1–8 in *Fieldiana, Botany* n.s. 38 (a special issue of that journal devoted to Singer and his work).

[2] German, French, Latin, Spanish, Russian and English

[3] That fact, the portrait of Singer reproduced here, and much of the other information about Singer's life and work recounted below are taken from Gregory M. Mueller's 1995 obituary memoir of him in *Mycologia*, (vol. 87, no. 1, pp. 144–147).

[4] *Ibid.* , p. 144

[5] According to his wife Martha's account in her memoir *Mycologists and Other Taxa* (J. Cramer, Braunschweig, 1984).

[6] Including some work on polypores with A. S. Bondartsev, profiled in the second installment of this series.

Singer collected fungi wherever he went: In Europe (Germany, Austria, France, Spain, Czechoslovakia, Switzerland, the Caucasus and Karelia), Asia (Siberia and Japan), North America (the US and Mexico), Central America, South America (Argentina, Bolivia, Brazil, Chile, Colombia, Peru and Uruguay), and Morocco. In so doing, besides his taxonomic work, he made major contributions to the study of the biodiversity and ecology of agarics. He also published research on hallucinogenic fungi and on the cultivation and utilization of edible fungi, served on numerous committees in professional organizations, and was the recipient of a great many honorary degrees and other awards, including the Distinguished Mycologist Award of the Mycological Society of America in 1986.

Moreover, Singer had a personal impact on many other mycologists, both amateur and professional.[7] His wife's memoir (cited in footnote 5 above) provides an anecdotal account of his interactions with various colleagues throughout the world and includes photographs of many of the illustrious mycologists with whom he worked and corresponded.

Further detailed information about Singer's life and work is contained in the special issue of the journal *Fieldiana* (cited in footnote 1 above). In particular, that source includes a bibliography of all of Singer's published works, a detailed itinerary of the field work he conducted, and an index to the genera, species and infraspecific taxa of basidiomycetes that he described.

[7] Mueller, *op.cit.*, states that Singer "was an active correspondent, one who promptly responded to the numerous requests for information, advice, identifications, etc. [and who] also was a joy to be with in the field."

## DIVERSITY, ECOLOGY,AND EVOLUTION OF MYRMECOPHILOUS OPHIOCORDYCEPS

*(continued from page 3)*

cetes, which switch from a parasitic to saprobic lifestyle after death of the host, this group includes several species that produce spores only before the death of the host.

This brings us to the two large groups of fungi that include mushrooms:

**Basidiomycetes** parasitic on insects are members of two genera of rusts, Septobasidium and Uridinella, affecting scale insects and one corticioid genus, Fibularhizoctonia, affecting termites. Uridinella attack single insects, whereas Septobasidium attack whole colonies. Fibularhizoctonia infects termites by making sclerotia that the termites mistake for their eggs.

**Ascomycetes** include many entomopathogenic fungi, especially in the order Hypocreales. Several orders include just a few species. Pleosporales includes several Podonectria species that infect scale insects, including the type species *Podonectria coccidola* (Ellis and Everhart, which appears to have been named from Florida). Myriangiales includes several species that infect scale insects. Most members of the genus Ascophaerales are saprophytes of the products of bees (honey, cocoons, nesting materials, or wax), but a few species of the genus are known to cause "chalk brood", a pathogen infecting larva that ingest spores.

The Hypocreales include a number of important genera of entomopathogenic fungi, such as Cordyceps, Tolypocladium, Hypocrella, Ophiocordyceps, Moellerriela, Samulesia, and Torrubiella. These genera attack insect species from 12 different orders of insects.

The Hypocreales appear to have played a role in the evolution from endophytes living in the tissue of plants to insect-pathogenic fungi that derive plant-based nutrition from insects. A large number of Ascomycete species in the Hypocreales order are pathogens of Hemipterans (true bugs). Insects arose very early in evolutionary time. Flowering plants arose about 100 million years later than insects. The co-diversification of flowering plants and insects prompted Hemipterans to diversify their mouth parts in ways that enabled them to draw fluids from the tissues of plants. At the same time, ancestors of the Hypocreales were living within flowering plant tissues as endophytes. To exploit this new source of nourishment from flowering plants, the fungi switched from a plant-host to an insect-host ecology. This is one of five to eight host-jumping events between Plant, Animal, and Fungus among members of the order Hypocreales.

The fungi of the *Ophiocordyceps unilateralis* complex were the stars of the show. They have evolved an elegant, reproductive strategy that involves manipulating the behavior of the host ant. A phylogenetic tree of over 80 species in genus Ophiocordyceps showed 45 species that attack ants. Of these, 13 species comprise the *O. unilateralis* complex. Their reproductive strategy was shown in a stunning time-lapse video. It went as follows:

A) Spores are dispersed from a dead ant above the forest floor, and fall to the ground beneath the dead ant. The spores are designed to fall within a small area and to stay put where they land.

B) Two weeks later, small fruiting bodies of the fungus appear on the forest floor, creating a minefield for healthy ants as they forage. Fungal fruiting bodies attach themselves, unnoticed, to the bodies of the healthy foraging ants.

C) Over the next ten days, the fungus penetrates the exoskeleton of the ant and begins to put out small threadlike fungal structures on its surface.

D) About ten days after infection, the fungus induces the infected ant to leave its colony and seek out an ideal micro-climate for development and dispersal of the fungal spores. The ant climbs to a very specific location on a leaf and bites into the edge or vein of the leaf.

*(continues at the bottom of the next page)*

# CALENDAR OF UPCOMING EVENTS

| | |
|---|---|
| **Sunday, June 4**<br>**10:00am** | **BOB PEABODY WILD FOODS FORAY & PICNIC**<br>**Deer Path Park, Flemington/Readington, NJ.**<br>*Leader:* Bob Saunders, NJMA member since 1987, who has been offering Wild Edible programs since 1994. He has studied cooking and foraging in the US and a variety of countries including China, Greece, Turkey, Mexico and Peru.<br>Bring a dish for the Potluck Picnic, open to NJMA members only. The foray is open to all. |
| **Sunday, June 25**<br>**10:00am** | **FORAY: LAKE OCQUITTUNK FAMILY CAMPING AREA**<br>**Stokes State Forest, Branchville, NJ** |
| **Sunday, July 9**<br>**10:00am** | **FORAY: WAWAYANDA STATE PARK**<br>**Hewitt (West Milford), NJ. NJMA ID required for free admission!** |
| **Saturday, July 15**<br>**10:00am** | **FORAY: MEADOWOOD PARK**<br>**Mendham** |
| **July 27 -30** | **NEMF SAMUEL RISTICH FORAY**<br>**Stratton Mountain, Vermont**<br>***For more information, see the announcement on page 4 of NJMA News 47-2.*** |
| **September 7-10** | **NAMA NORTHWOODS FORAY**<br>**Lakewood Resorts, Lake NAMAkagon, Wisconsin** |
| **September 24** | **FUNGUS FEST**<br>**at the Frelinghuysen Arboretum, Morristown** |

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## DIVERSITY, ECOLOGY,AND EVOLUTION OF MYRMECOPHILOUS OPHIOCORDYCEPS

*(continued from page 6)*

E) At this point, the ant dies, holding fast with its locked jaws to the leaf. The fungus switches from a parasitic to a saprobic nutritional mode, and the fungal structures continue to grow within and outside the ant cadaver.

F) Two to eight weeks after the ant's death, a fungal fruiting body emerges from the back of the ant's head. Ascospores are launched from this structure.

G) Between 24 and 72 hours after the spores are launched, they germinate and form secondary spores, adding to the minefield which will infect more healthy foraging ants.

The life history of *O. unilateralis* is an interesting example of behavioral manipulation of one species by another. In this case, a fungus manipulates an animal in ways that increase the ability of the fungal species to survive. Behavioral manipulation of arthropods by fungi are very diverse and have evolved independently several times. Scientists are applying new techniques and their relatively deep knowledge of ants to begin answering the interesting question of how a species without a brain comes to manipulate a species with a brain to increase its own fitness to survive.

Thank you, João Araújo, for this fascinating glimpse into the ways fungi, animals, and plants depend upon each other.

## BYTES, BITS, & BITES *(continued from page 3)*

*from* ***The New York Times:***

Mushrooms done right

***https://nyti.ms/2op10kP***

*from* ***Splendid Table:***

Tandoori-Rubbed Portabellos

***http://tinyurl.com/mn7kpwu***

*from the Editor:*

I sent this email to Judy Glattstein:
"Who Stole the Brooklyn Botanic Garden's Lovingly Grown Ramps?"

***http://tinyurl.com/mncvxu9***

She replied with a photo of some Winterthur 'shrooms from her website BelleWood Gardens to cheer me up:


And a quote: Letter from the Enchanted Woods Faeries: *"Be extra careful at the Forbidden Fairy Ring. It's a circle of mushrooms left by the fairies when they danced at night. Never, ever step inside a fairy ring – if you do, you might disappear into the fairy land…unless, of course, that's what you want to do!!!"*

There's a sensor on one/a few mushrooms, and if you disturb the sensor beam, the mist erupts for a few minutes.

*from John Burghardt:*

Subject: Phyto/bioblitz request

Hello John,
My name is Jason Ksepka, I am the new Curator at Bowman's Hill Wildflower Preserve, and a cofounder of MANTIZ (Mid-Atlantic Native & Threatened Insect Zoo). I am organizing 4 separate blitzes, 3 phytoblitzes for BHWP, and 1 full bioblitz at Green Lane Park, Montgomery County, PA, and I was wondering if you could help by posting these events with the NJMA, and of course, by participating in the blitzes if you can?

I have copied the info regarding the blitzes below. Please feel free to reach out to me if you have any questions, or suggestions. Would you please post this where appropriate in the events or other space for announcements for the society? As soon as I can get a link for an online registration for the blitz at Green Lane, I'll contact you with that updated info as well.

***Bowman's Hill Wildflower Preserve***
1635 River Road, New Hope, PA 18938
Sunday June 25th 2017, 8:00am to 8:00pm
Registration at ***http://conta.cc/2n3uUuu***

***MANTIZ*** (Mid-Atlantic Native & Threatened Insect Zoo) MANTIZ is a new non-profit organization promoting awareness of the beauty and value of insects, with a focus on the species that live in the Greater Philadelphia region. MANTIZ interacts with the community through education, outreach, advocacy, and restoration.

Friday, June 23rd 2017 at 11:00am to Saturday June 24th 11:00am. Contact Jason Ksepka for information at ***mantizorg@gmail.com***.

*from Liz Broderick:*

A preview of *NJMA News* 47-4.

Hi Jim and Jim,
Don't remember the names of these new members since December, but thought you might like the pix for our newsletter. They were so excited with their finds.


Virginia Tomat is sending you the actual article, and Steve Sterling probably has 300 pictures.