

# New Jersey Mycological Assn.

NJMA News  
Volume X

Feb. 1980  
No. 2

President: Jim Richards

Editor: Melanie Spock

## Dr. Rogerson — Feb. 10

Dr. Clark Rogerson is the featured speaker for the February 10th meeting. The subject of his lecture will be the genus Hygrophorus. Dr. Rogerson is Senior Curator of Cryptogamic Botany at the New York Botanic Garden and also editor of Mycologia. The meeting will be held in the SCEEC auditorium at 2:00 p.m.

## NOTES

About 40 persons attended the Dec. 30th special lecture and slide presentation on Lactarius given by Dr. Richard Homola of the University of Maine. The order of slides was grouped so that one could readily discern field characteristics which separate similar species. The double screen technique that Dr. Homola uses gives the advantage of showing the mushroom on one slide and either the accompanying spores or information on the other slide. The slides of spores were taken through an electron scanning microscope. They looked like something from outer space. Informal discussion made the lecture more interesting.

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By the time you read this the NJMA executive board will have held a meeting to plan this year's programs, forays and activities. More information will appear in next month's newsletter.  
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A newspaper clipping about two mushroom poisonings, one resulting in a death, which occurred this fall in Pennsylvania, was sent to me by Doreen Schiller. That article and one on mushroom toxins from "Scientific American" magazine will be posted on the club bulletin board at SCEEC.

Please put these in your ears if you've already paid your 1980 dues. For those who have forgotten, we'd like to remind you to hurry if you want to be on our membership roster. We would like to compile the roster in time to be printed in the next newsletter. Dues are \$10.00 per family and \$7.00 for individual membership. Bring the dues to the next meeting, or send your check payable to NJMA to

Mrs. Margaret Turchick

New Jersey

Mycological Assn.

# MUSHROOM NOTES by Gary Lincoff

## A. Events

1. Dr. Clark Rogerson, featured at our meeting this month, will speak in N.Y. on "Fungi that Feed on Other Fungi". If you would like to learn more about parasitic fungi, the lecture will be held at the New York Academy of Sciences, 2 East 63rd St., Manhattan, 19 Feb. at 7:30 p.m.
2. The Los Angeles Mycological Society is holding a 3-day foray in the hills outside L.A., 8-10 February, with Drs. Alexander H. Smith and Harry D. Thiers as principal mycologists. Several people from the New York-New Jersey-Connecticut area will be going. Round-trip airfare is about \$350, or about half that stand-by. For information on the meeting place and time, write:

Los Angeles Mycological Society  
Los Angeles Museum of Natural History  
c/o Botanical Curator  
900 Exposition Blvd.  
Los Angeles,  
California 90007

## B. The Northeastern Mycological Foray Check List

Many of you are no doubt wondering whatever became of the check list for that phenomenal foray we had at Willimantic, Connecticut last August. Well, we have over 350 species recorded so far, with about half of the collections safely placed in herbaria for future reference. Quite a few collections are still being examined and have not been identified as yet. I have written to all the foray mycologists who have not sent in their corrected or amended lists (about 9 of the more than 16 professional mycologists present), and requested their lists by no later than 1 February. The check list should be ready for distribution by 1 March.

## C. On Mushrooms and Safety

1. Mushroom Bust - or just how safe are hallucinogenic mushrooms?  
The Arizona Daily Star - 21 November 1979 - 14 Arrested in Seizure of 8000 quart Mason jars of psilocybin mushrooms (and nearly 2000 doses of LSD) - 5 truckloads of mushrooms! Valued at \$200,000!! - That's \$25 a quart!!! Imagine what a quart would cost if the only source of supply came from the Middle East!!!!
2. Mushroom Bust - or just how safe are city park mushrooms?  
Jim San Antonio of the USDA sent me the following abstract on heavy metals absorption: "Twenty-two samples of edible fungi (including Agaricus sp., Boletus edulis, Pholiota squarrosa (!?), and Coprinus comatus) were collected from 6 parks (in Helsinki) and analysed for PB (lead), CD (cadmium) and ZN (zinc). Concentrations of PB and CD correlated well with the traffic density in the adjacent streets, and in areas of heavy traffic they were so high that the fungi could not be recommended as food." Any adverse symptoms out there? Any unexplained neurological disorders or sudden taste for lead-based paint?

## PHOTO GROUP ?

It is hoped that out of the photo contest, there will be enough interested members for the photography committee of NJMA to meet on a regular basis to compare techniques and learn about mushroom photography. Those interested should contact Al Leyenberger, Photography Chairman, at 201-647-5740.

*Tina Marasmius  
Mycological Miasma*



## NE NEWS

Dr. Alexander Smith has agreed to be the Senior Mycologist for the Northeast Foray to be held August 22-24 in Vermont. Other mycologists are being contacted for the event.

The NJMA has agreed to be responsible for the identification tables at the foray.

*It's still a long long time until morels.  
And leap year makes it one day longer!*

## TAXONOMY

Both taxonomy meetings for February will be held at SCEEC. The first meeting will be Feb. 5 at 7:30 p.m. The second meeting will be on a Saturday, February 23, from 10:00 a.m. to 1:00 p.m. Bring a lunch. Both meetings will be downstairs in classroom #3. Contact Dorothy Smullen if you plan to attend, 201-647-5740. New members welcome.

## T-Shirts . . .

NJMA patches and tee-shirts are still available, as are a selection of books which may be purchased at a discount. They are being sold at the monthly meetings.

# Mycological Heraldry or Heraldry Mycology

Ole Rostock

Bagsvaerd, Denmark

Knowing that I am an eager student of heraldry, Elio Schaechter drew my attention to the fact that Ramsbottom, in his *Mushrooms and Toadstools*, mentioned a drawing in the Harleian Manuscript of the coat-of-arms of Dryland, which has a mycological motif. In the parlance of heraldry, it shows "wert, a chevron purple between three mushrooms slipped argent." To the uninitiated, the accompanying drawing and diagram may clarify what is meant by these terms.

In an ensuing discussion, Elio persuaded me to dig further in the Garden of Heraldry in the hope of finding more mushrooms than Dryland's and the other three, of French origin, also mentioned in the Harleian Manuscript. I went through the keys of about 150,000 European coats-of-arms and found only 15 with mushrooms. Of these, 8 are French, 2 German, and one each English, Belgian, Swiss, Italian and Polish. This work, of going through the keys of that imposing number of coats-of-arms, is by means as gargantuan as it may sound, since heraldic keys are arranged in exactly the same manner as botanical ones.

It was not possible to establish a definite connection between all the family names and the fact that mushrooms appear in the arms, but several suggestions seem credible. The Italian family Fongarini brings to mind that fungo means mushroom in that language. Lesseps may well be a homophone of les cèpes, what the French call Boletus edulis. Boulet resembles the French pronunciation of bolete, and the Moreau pointedly display morels. The black truffle so emphatically displayed in the Rabasse arms is quite straightforward, since rabasse is Provencal for truffles.

Most of the mushrooms represented could be either agarics or boletes. The colors indicated are of little help since they are mainly gold or silver. One of the German mushrooms may well be a bolete since the color of the cap is given as dark reddish-brown and that of the stem white, but this could also be true for many agarics! Even the Boulet-bolete connection makes identification uncertain because the term bolete was used for Amanita caesarea from Roman antiquity well into the Linnean era. The only fungi that can be identified with some certainty are the morel (Morchella) and the truffle, which could be either Tuber or Choiromyces.

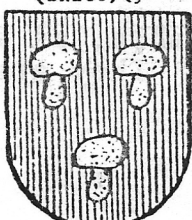
From the information available it has not been possible to establish a definitive date for the origin of the arms in question, but I would venture a guess of somewhere in the 16th or 17th century. Nor is it possible to establish Ramsbottom's charming idea, that the Normans brought with them their taste for fungi and that consumption of mushrooms would have been considered a badge of aristocracy. However, it had been already customary to eat them in England!

Although the number of mycological coats-of-arms is limited, it does reveal a long standing interest in the mushrooms from a rather unexpected quarter.

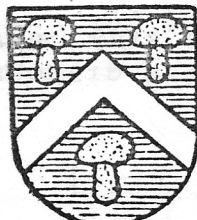
Mr. Rostock, a well known heraldist, is the Secretary of the Scandinavian Heraldry Society - and a lover of mushrooms



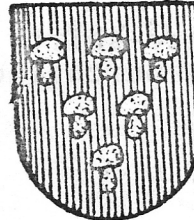
silver gold blue red green purple black  
(white) (yellow)



Gorgias  
France



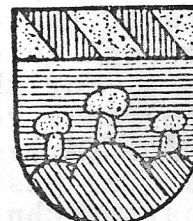
Guyot  
Normandy



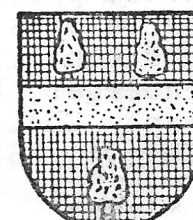
Launy  
Brittany



Lesseps  
Paris



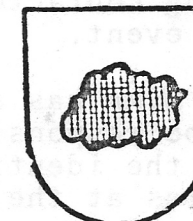
Merz  
Switzerland



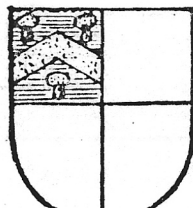
Moreau  
France



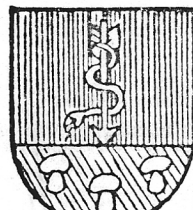
Optenberch  
Brussels



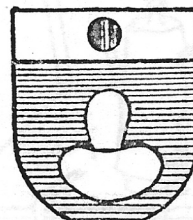
Rabasse  
Province



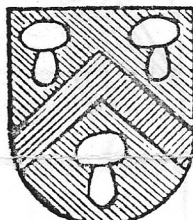
Avrange  
France



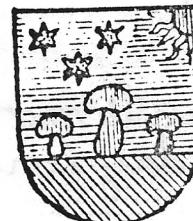
Baybuza  
Poland



Boulet  
Gascony



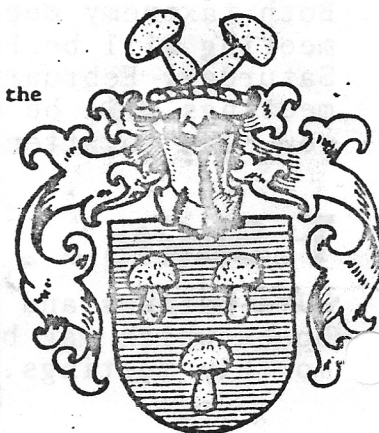
Dryland  
England



Fongarini  
Italy



von Werberichshausen  
Germany



Kries  
Germany

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# BOOKS IN BRIEF by Gary Lincoff

1. HOW TO KNOW THE GILLED MUSHROOMS, by Drs. Alexander H. and Helen V. Smith and their daughter Dr. Nancy S. Weber, is a must buy. Not since C. H. Kauffman's 1918 book on the gilled mushrooms of Michigan has there been a major field guide devoted to the gilled mushrooms of North America. More than 800 species are described, and most are illustrated with Helen's black and white half-tone drawings. There are keys to the 14 families they recognize, and additional keys to the 75 genera they include, many of which Dr. A. H. Smith has monographed or studied in his 50 years as a mycologist. There are also 5 special keys to identify mushroom genera by macroscopic characters. Finally, and of no less importance, there are keys to the species. Keys alone are often deceptive, but with the mushroom descriptions to guide you these should prove helpful. The use of chemical characters and spore size in the species keys can usually be got around, if you lack the reagents or microscope, by a careful reading of the descriptions for each choice.

Although the book is a field guide to the mushrooms of North America as a whole, and many species are described as being "western," it will probably be discovered that many of these species also occur in the east, but have not been collected or properly identified here, to date.

Ten genera account for 50% of the species in the book: Cortinarius (68), Lactarius (59), Hygrophorus (55), Amanita (44), Pholiota (42), Psathyrella (37), Agaricus (36), Tricholoma (29), Lepiota (28), and Clitocybe (23). In addition, it is nice to see an ample number of described species of Mycena (22), Inocybe (22), Pluteus (20), Tricholomopsis (15), Gonocybe (15), Hebeloma (13), Agrocybe (10), and 41 species in all of Naematoloma, Psilocybe, and Stropharia.

On the other hand, while Russula and Entoloma (here called Rhodophyllus) are represented in our area by all too many species, this book describes only 17 of the former and 11 of the latter, not all of which are to be found here.

There are some typos to correct: on page 156, couplet 1b should lead you to #18, not to #8; on page 199, couplet 16b should lead you to #31, not to #00.

Omissions include our very common Lactarius hygrophoroides and Baeospora myosura, that little collybia-like fungus that grows around here on white pine cones. There are also problems with the book's concept of Marasmius, both genus and species, and in Amanita, A. gemmata here appears to be split into two species: A. junquillea (in the pacific northwest) and A. russuloides (from the Great Lakes east). Some problems involving the nomenclature and description of species will be discussed in a future newsletter.

2. I funghi dal vero, by Bruno Cetto, comes in 3 volumes, contains 1264 beautiful full color habitat photographs, and although there are no keys to speak of, the text is written in simple Italian, and the set is well worth its \$60 price tag. Write to the publisher: Arti Grafiche Saturnia, Trento, Italy.

3. NORTH AMERICAN SPECIES OF LACTARIUS, by Drs. L. R. Hesler and A. H. Smith, is now available from the University of Michigan Press, Ann Arbor, Michigan, for the unbelievable low price of \$25. Anyone seriously interested in the identification of gilled mushrooms should own a copy of this book. It is not the last word on Lactarius, but it is the most complete account we have ever had, and may be the first major study of American species published in over 50 years.

Lactarius species, when fresh, are the easiest of gilled mushrooms to identify to genus, and one can learn to identify more than 3/4 of the 200 species without resort to chemicals or a microscope. While this book can be used to great advantage alone, it would be even better as the text to use in a Lactarius workshop, where you would not only learn the mushrooms but how most efficiently to use this book.

An added bonus in this book are the 88 scanning electron micrographs of Lactarius spores, in addition to the many drawings of spores and other microscopic characters, and the 154 plates of black and white photographs of lactarii.

Typos occur in most books, and many will likely be found here as people use it. On page 68, for example, the stipe of L. indigo var. indigo is not 1-25 mm thick but 10 to 25 mm thick.

Also, Smith's study of european types of Lactarius species has persuaded him that several frequently identified species do not actually occur in this country, as far as he knows, but that mostly indigenous American species have been misidentified as L. aurantiacus, fuliginosus, helvus, necator, serifluus, and subdulcis, among others.

L. vellereus, on the other hand, is reported in Nova Scotia by Dr. Kenneth A. Harrison (and in Maine by Dr. Richard Homola - as stated in his lecture before NJMA 30 December 1979). What has been called L. vellereus in our area seems to be L. subvellereus var. subdistans. This complex, which includes several other species, is well described and differentiated in this book.

A detailed review of this book - and how well it works in our area - will appear after the coming mushroom season.

4. 700 Pilze in Farbfotos, by Rose Marie Dahncke and Sabine Marie Dahncke, is a single volume with 700 large, full color, mostly studio photographs. There are no keys and the text is minimal and in German, but each species description includes the page number in M. Moser's Kleine Kryptogamenflora, also in German, where the species is keyed out. 700 Pilze in Farbfotos is available for about 70 DM or \$35 by writing to A. T. Verlag/Bahnhofstrasse 39-43/Aarau, Switzerland CH 5001.

Meinhard Moser's Kleine Kryptogamenflora, the new edition (1978), contains 500 pages of keys to the species of gilled mushrooms and boletes in Europe. It is written in highly abbreviated scientific German and has practically no illustrations, but it appears to be the book of choice among German speaking european amateur mycologists. If Rolf Singer's Agaricales in Modern Taxonomy is a monograph of agaric genera, Moser's work is a set of keys to the species of these genera.

# POLYPORES FOR AMATEURS by Dr. Sam Ristich

Polypores are basidiomycetes forming a poroid (or) tubular hymenophore -- that with age will become daedaloid, lamelliform or toothlike. They can be classified by the old form genera e.g. Polyporus, Daedalea, Fomes, Hexagonia, etc. or by the new hyphal-system -- e.g. monomitic, dimitic or trimitic. Polypores can also be classified by habitat, odor, context, color reactions. Lowe's old keys are based on the modern concepts of genera. Many new genera are introduced, e.g. Coriolus, Phellinus, Laetiporus, etc. These genera are updated in the appendix of Krieger's HANDBOOK OF MUSHROOMS.

For those of us who spend much of our time in the woods a conceptual approach to polypores is vital to our understanding of these recyclers of cellulose, lignin and pectins! Here are some helpful guidelines.

What is the host: If you find Lenzites sepiaria, Polyporus borealis, Fomes subroseus, P. abietinus, F. pinicola\*, P. schweinitzii the tree must be a conifer. In our area P. betulinus only on grey birch\*\*, P. conchifer - only elm, F. rimosus -- black locust, F. fraxineus -- ash, F. connatus -- maple, F. scutallatus -- alder, P. berkeleyi -- oak, Daedalea quercina -- oak/chestnut.

Position on host: (Basal) P. berkeleyi, P. dryadeus, P. frondosus, P. giganteus, P. fraxineus.

Age of host: (living as a parasite) P. berkeleyi - root rot, F. connatus - wound tissue, Poria obliqua - wound. (Dead to declining) P. gilvus, P. conchifer, P. versicolor, P. adustus.

\* in our area - but will "switch" to birch

\*\* sometimes on cherry birch

The following can be grouped by stipe, context and shape:

## A. Stipe

1. Central stipe - radicatus, picipes, brumalis, frondosus, giganteus, perennis, cinnamomeus, and schweinitzii.
2. Lateral or eccentric stipe - squamosus, radicatus, picipes, frondosus, giganteus, sulphureus, betulinus, dryadeus, and pocula.

## B. Context

1. Brown - graveolens, gilvus, igniarius, everhartii, robustus, rimosus, applanatus, lucidus, and tsuga.
2. White - squamosus, betulinus, conchifer, frondosus, giganteus, volvatus, adustus, fumosus, albellus, caesius, dichrous, versicolor, pargemous, pubescens, spraguei, hirsutus, tulipiferae, tephroleucus, connatus, scutellatus, T. suaveoleas (volvorus).
3. Pink, tan, flesh - pocula, resinosus, pinicola, fraxineus, subroseus, nidulans, dryadeus.
4. Red, lavender - cinnabarinus, subroseus.
5. Colored hymenium - adustus, fumosus, dichrous.

C. Strange shapes - Many perennial species as well as some annuals such as gilvus, pargamenus, will form sporophores in several planes especially when host tree falls. Certain species of Poria (obliqua) form sterile black coal-like sporophores in wound tissue.

The following can be grouped by:

Color reactions: P. giganteus turns black when wounded, P. caesius -blue, P. nidulans - purple in 3% KOH, P. tomentosus - red in KOH;

Odor: Trametes suaveolens - anise, P. berkeleyi - equine, P. squamosus - "squamose";

Taste: P. hirtus, P. spraguei, P. squamosus - all bitter;

Season: P. arcularius, Favolus alveolarus, P. squamosus - only in spring or flush in spring;

Context Color: old G. applanatus from old F. pinicola - brown vs. pale, F. igniarius, F. everhartii - white "fuzz" in context vs. none;

Ecologically: P. picipes, P. brumalis - on wood, P. radicans, P. cinnamomeus, P. perennis - on ground;

Geometrically: P. graveolens - short tight imbricated pilei, P. umbellatus - "stacked umbrellas", F. fomentarius - hoof shaped, P. conchifer - little shell (sterile portion);

Morphology: (Highly varnished red) - P. lucidus, tsuga, red margin - F. pinicola, long stiff hair - P. hispidus, cracked surface (rimrose) - F. rimosus;

Internal Characteristics: Prominent setae - P. glomeratus, P. tomentosus, F. everhartii (but none in robustus);

Types of hyphae: Monomitric - thick walled - P. adustus; dimitic - generative, hyphae with clamps - in P. squamosus; trimitic - generative thin, thick wall skeletal and binding hyphae - P. versicolor;

Many clamp connections; P. nidulans, P. adustus;

Prominent cystidia: P. tulipiferus, P. tephroleucus;

Toothlike poroid surface: P. tulipiferus, P. pargamenus.

#### Some New Genera

D. confragosa - Daedaleopsis

D. quercina - Daedalea

D. unicolor - Cerrena

Fomes pinicola - Fomitopsis

Lenzites betulinus - Lenzites

L. saeparia - Gloeophyllum

P. abietinus - Hirschiaporus

P. adustus - Bjerkandera

P. berkeleyi - Bonderzewia

P. betulinus - Piptoporus

P. brumalis - Polyporellus

P. cinnabarinus - Pychoporus

P. conchifer - Poronidulus

P. dichrous - Glosoporus

P. frondosus - Grifola

P. giganteus - Meripilus

P. gilvus - Phellinus

P. graveolens - Globifomes

P. hispidus - Inonotus

P. hirsutus - Coriolus

P. mollis, fragilis - Datronia

P. nidulans - Hapalopilus

P. ohioneus - Tyromyces

P. perennis - Coltrichia

P. resinosus - Ischnoderma

P. schweinitzii - Phaeolus

P. tulipiferus - Irpiciporus

P. versicolor - Coriolus

Trametes malicola - Antrodea

P. sulphureus - Laetiporus



# Mycophagist's Corner

It was a bitter cold day last fall after an NJMA foray where we found a few pounds of Polyporus frondosus. We were driving back home by way



POLYPORUS  
FRONDOSUS

of N.Y.C.

where Selena had a meeting...

when suddenly a pheasant hit the windshield of the car in front of us and fell, intact but dead, to the side of the road.

We pulled right over, examined its body and retrieved the pheasant...

It was way too cold at this point to field dress the bird outside and also

Selena had to get to her meeting

so we continued to N.Y.C....

Selena went to the meeting

and I phoned friends and said,

"Can I use your kitchen

to clean and pluck a pheasant?"

They said, "Sure, come on up!"

While feathers were flying,

They opened some wine and played

"Stereo Chickens", a Jerry Jeff Walker song.

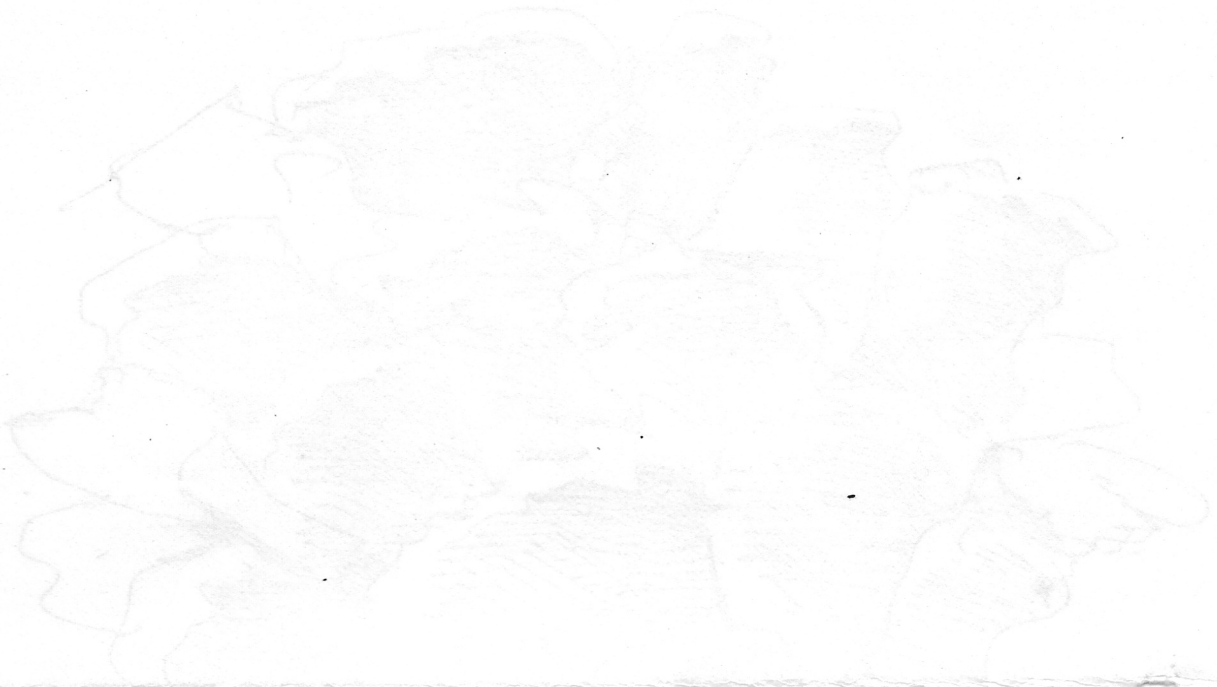
Later back at home we stuffed the pheasant with a mixture of Polyporus frondosus, onions, currants, wild rice (a friend had given us), sage, rosemary, butter, and wine... WOW!...WOW!...WOW!...

Text and illustration from  
Selena Whitefeather & Gerry Miller

*Mycophaga's Corner*

It was a bitter cold day last fall after an NMA foray when we found a few pounds of *Myiophaga* (Lindquist). We were driving back home by way of...

of the car in front of us and fell intact but back to the side of the road. We pulled over, examined its body and retrieved the phasmatid. It was very cold at this point to field dress the bird outside and also...



New Jersey Mycological Assn.  
c/o Jim Richards, President

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