

RECENT MACROMYCETES RECORDS FROM THREE EAST-CENTRAL INDIANA COUNTIES

Donald G. Ruch: Biology Department, Ball State University, Muncie, Indiana 47306
USA

ABSTRACT. The Smith Great Lake States Foray was held in east-central Indiana in Fall 2002. Since participants of the foray included professional mycologists from the Great Lake States, this provided an opportunity to significantly increase our knowledge of macromycetes (both ascomycetes and basidiomycetes) distribution in Indiana. A total of 108 collections was made from Ginn Woods (Delaware County), Camp Windigo (Grant County), and Wilbur Wright Fish and Wildlife Area (Henry County). Species collected from Camp Windigo and Wilbur Wright Fish and Wildlife Area represent new county records. The 12 collections at Camp Windigo included two ascomycetes, nine basidiomycetes, and one slime mold, while the 16 collections at WWFWA included two ascomycetes and 14 basidiomycetes. Of the 80 collections from Ginn Woods, 53 represent new county records. The 80 collections included six ascomycetes, 73 basidiomycetes, and one mitosporic (imperfect) fungus. None of the species reported from the three sites were unexpected based on general region of distribution for each species.

Keywords: Macromycetes, basidiomycetes, ascomycetes, mushrooms, Great Lake States Foray, Delaware County, Grant County, Henry County, Indiana, Ginn Woods, Camp Windigo, Wilbur Wright Fish and Wildlife Area

In an earlier paper Ruch et al. (2001) reported that our knowledge of macromycetes (both basidiomycetes and ascomycetes) in Indiana is wanting. A survey of the various herbaria within the state revealed that only nine contained fungal specimens, with most having fewer than 400 collections. Since that report, no additional information has been published.

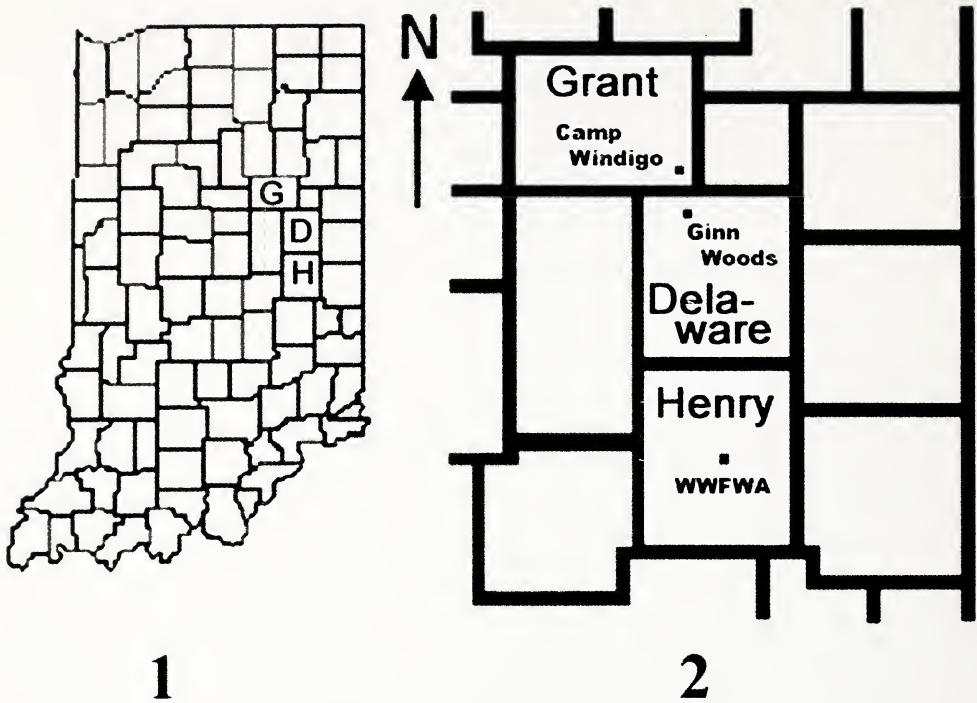
In the Fall of 2002, I had the opportunity to host the Smith Great Lake States Foray. This foray, often referred to as the “Smith Foray” in honor of Alexander H. Smith, former mycologist at the University of Michigan, is an annual event held each year since 1974. Attendees include professional mycologists and their students, along with other interested scientists, both professional and amateur. The foray offered an opportunity to expand our knowledge of macromycetes occurrence and distribution in east-central Indiana. The purpose of this paper is to list the fungi collected and identified during the Smith Foray. Additional collections not reported previously from Ginn Woods between 1994 and 2001 have also been included.

STUDY SITES

Fungi were collected from three localities: Camp Windigo in Grant County, Ginn Woods

in Delaware County, and Wilbur Wright Fish and Wildlife Area (WWFWA) in Henry County (Figs. 1, 2). Camp Windigo, a Girl Scout camp in southeastern Grant County, served as the home base. The foray occurred from 19–22 September. Following is a short description of each site.

Ginn Woods, Delaware County: Ginn Woods, a typical flatwoods, lies in the Bluffton Till Plain section of the Central Till Plain Natural Region (Homoya et al. 1985). The woods is a deciduous forest community and, based on structure composition and size, is the second largest old-growth stand in Indiana (Badger et al. 1998). The shade-tolerant species *Acer saccharum* Marshall, *Fagus grandifolia* Ehrh., and *Tilia americana* L. dominate both the under- and overstories. Subdominant species include *Aesculus glabra* Willd., *Celtis occidentalis* L., *Fraxinus americana* L., *Prunus serotina* Ehrh., *Quercus rubra* L., and *Ulmus rubra* Muhl. In localized areas where soil drainage is poorest, *Acer saccharinum* L., *Acer rubrum* L., *Carya laciniosa* (Michx. f.) Loudon, *Fraxinus lanceolata* Borkh., *Platanus occidentalis* L., and *Populus deltoides* Marshall are prominent. The soils of Ginn Woods are somewhat poorly to very



Figures 1, 2.—Location of the three collecting sites for the 2002 Smith Great Lake States Foray. 1. State map showing the location of Grant County (G), Delaware County (D), and Henry County (H) in east-central Indiana; 2. Enlargement of east-central Indiana showing the location of Camp Windigo in Grant County, Ginn Woods in Delaware County, and Wilbur Wright Fish and Wildlife Area in Henry County.

poorly-drained and seasonal ponding typically occurs on low-lying portions (Huffman 1972).

Wilbur Wright Fish and Wildlife Area (WWFWA), Henry County: WWFWA lies within the eastern third of the Tipton Till Plain Section of the Central Till Plain Natural Region (Homoya et al. 1985), also known as the Castle Till Plain and Drainageway of the Central Till Plain Natural Region (Gray 2000). The woods of Unit 2 occur on morainic deposits from the Knightstown Morainic System, formerly known as the Champaign Morainic System (Indiana Geological Survey 2001; Malott 1922; Wayne 1965). The soils of Unit 2 are mostly Losantville silt loam, are of medium to moderately fine texture, and are usually well-drained (Hillis & Neely 1986). The woods is a deciduous forest community; and the trees comprising the under- and overstories include *Carya cordiformis* (Wangenh.) K. Koch, *Carya ovata* (Miller) K. Koch, *Fagus grandifolia*, *Fraxinus americana*, *Juglans nigra* L., *Liriodendron tulipifera* L., *Quercus*

alba L., *Quercus rubra*, *Acer saccharum*, *Aesculus glabra*, *Tilia americana*, *Carya glabra* (Miller) Sweet, *Carpinus caroliniana* Walter, and *Ostrya virginiana* (Miller) K. Koch (Ruch et al. 2002).

Camp Windigo, Grant County: The woods at Camp Windigo, which are typical flatwoods, lie in the Bluffton Till Plain section of the Central Till Plain Natural Region (Homoya et al. 1985). The soils at the camp are of the Fox series, mostly Fox silt loam, and are typically moderately well-drained, although some evidence of season ponding was evident (Jensen 1988). The woods are a deciduous forest community and the trees comprising the under- and overstories include *Quercus rubra*, *Quercus alba*, *Acer saccharum*, *Carya cordiformis*, *Carya ovata*, *Fraxinus americana*, *Ulmus rubra*, *Celtis occidentalis*, and *Aesculus glabra*.

WEATHER IN 2002

From 1 January to 30 June 2002, Muncie, Indiana received 57.9 cm (22.78 inches) of

rain, 28% above the average rainfall of 45.3 cm (17.85 inches). However, rainfall for the two and one-half months prior to the foray was below normal. From 1 July to 19 September, Muncie, Indiana received only 13.9 cm (5.49 inches) of rain, 42% below the average rainfall of 23.8 cm (9.36 inches). The first 19 days of September were especially dry, receiving only 1.1 cm (0.44 inch) of rain instead of the anticipated 4.8 cm (1.89 inches).

METHODS

At all sites participants randomly crisscrossed the woods. No efforts were made to systematically cover any of the sites. Specimens were collected, wrapped separately, and brought to the central collecting site at Camp Windigo for identification. Following identification, specimens were dried on several Excalibur food dehydrators, then given a Ball State Mushroom Herbarium number (BSUHM #) and placed in the herbarium. The primary sources used to identify the mushrooms included (in alphabetical order) Arora (1986), Barron (1999), Bessette et al. (1995, 1997, 2000), Breitenbach & Kranzlin (1986, 1991, 1995, 2000), Dennis (1981), Gilbertson & Ryvarden (1986), Hesler (1967, 1969), Hesler & Smith (1979), Huffman et al. (1989), Lincoff (1991), Martin (1969), Miller (1979), Moser (1983), Phillips (1991), Roody (2003), Smith (1947), and Smith & Thiers (1971).

RESULTS

The macromycetes, both ascomycetes and basidiomycetes, that were collected and identified at all three sites of the Smith Great Lake States Foray are listed in the Appendix. In addition, macromycetes collected in Ginn Woods between 1994 and 2001, and not previously reported, are also listed in the Appendix. Each species report contains the following information: (1) scientific name; (2) taxonomic synonyms, if appropriate; (3) common names, if any; (4) county/counties of collections (see Study Sites); and (5) the BSUHM herbarium number(s). Specimens with a GMM number are in Gregory Mueller's collection at The Field Museum, Chicago, Illinois. Species that have been previously reported for Ginn Woods by Ruch et al. (2001) are indicated by an asterisk (*). Species collected at Ginn Woods by Donald Ruch between 1994–2001, but not previously report-

ed, are indicated by a pound sign (#). Species are listed following the taxonomic scheme in Hawksworth et al. (1995).

During the 2002 Smith Great Lake States Foray, a total of 108 collections was made, including 80 from Ginn Woods, 12 from Camp Windigo, and 16 from Wilbur Wright Fish and Wildlife Area (WWFWA). All species collected from Camp Windigo and WWFWA represent new county records. The 12 species collected at Camp Windigo included two ascomycetes, nine basidiomycetes, and one slime mold, while the 16 species collected at WWFWA included two ascomycetes and 14 basidiomycetes. Of the 80 collections made at Ginn Woods, 53 represent new records, while 27 were species that had been reported earlier (Ruch et al. 2001). The 80 collections by participants of the foray included six ascomycetes, 73 basidiomycetes, and one mitosporic (imperfect) fungus.

DISCUSSION

Because the weather was so dry in the second half of 2002, especially in September, the number of species collected was much less than anticipated. Even so, of the 108 collections made, 81 represent county records, e.g., 53 from Delaware County, 12 from Grant County, and 16 from Henry County.

By combining all results from Ginn Woods, e.g., the Smith Foray collections, the additional collections from 1994–2001 listed in this paper, and previous collections reported by Ruch et al. (2001), the total recorded species, and hence Delaware County records, are 136. These records include 13 ascomycetes, 119 basidiomycetes, 3 slime molds (myxomycetes), and 1 mitosporic (imperfect) fungus, together representing 91 genera from 43 families and 23 orders.

Of all of the macromycetes reported from Delaware, Grant, and Henry counties, none were unexpected. This assertion is based on species distribution given in the monographs and popular field guides listed in the Methods section. Most of the authors of these sources have taken the extreme eastern, western, northern and southern known sites (often states) of collections for a species, then assumed that the species occurs in all areas in between, whether records exist or not. Thus, the species of fleshy fungi reported herein were expected; but this is the first report that

includes voucher specimens of these fungi from Delaware, Henry, and Grant counties.

ACKNOWLEDGMENT

I wish to acknowledge and extend my thanks to the Girl Scouts of Wapehani Council, Inc. for permitting us to use the facilities and grounds at Camp Windigo, Upland, Indiana. I also wish to thank the Ball State Weather Station, especially Dr. David Arnold, director, and Tricia Childers and Lindsey Butor, Observers, for providing rainfall data for 2002. I particularly wish to extend my sincere appreciation to the participants of the 2002 Smith Great Lake States Foray for their contribution to increasing our knowledge of macromycetes occurrence and distribution in east-central Indiana. The participants of the foray were (in alphabetical order) Gerard Adams, Michigan State University; Josh Burgess, University of Wisconsin-La Crosse; Darrell and Carol Cox, University of Illinois; Michael Foos, Indiana University East; Robert Gesner, Western Illinois University; Martin Gilmore, Ball State University; Heather Hallen, Michigan State University; Dorothy McMeekin, Michigan State University; Andrew S. Methven, Eastern Illinois University; Drew Minnis, Southern Illinois University; Gregory Mueller and Betty Strack, The Field Museum in Chicago; Paul Olexia, Kalamazoo College; Bernadette O'Reilly, University of Wisconsin-La Crosse; John Rippon, University of Chicago, Emeritus; Donald and Brenda Ruch, Ball State University; John Steinke, Wisconsin Mycological Society; Walter Sundberg, Southern Illinois University; Michael R. Tansy, Indiana University; and Thomas J. Volk, University of Wisconsin-La Crosse.

APPENDIX

Catalog of Macromycetes (Delaware, Grant, and Henry Counties, Indiana)

Macromycetes collected during the 2002 Smith Great Lake States Foray and from Ginn Woods between 1994 and 2001, and not previously published, are listed here. Each species report contains the following information: (1) scientific name; (2) taxonomic synonyms, if appropriate; (3) common names, if any; (4) county/counties of collections (see Study Sites); and (5) the BSUHM herbarium number(s). A GMM number indicates that the specimen is in Gregory Mueller's collection at The Field Museum, Chicago, Illinois. Species that have been

previously reported for Ginn Woods by Ruch et al. (2001) are indicated by an asterisk (*). Species collected at Ginn Woods by Donald Ruch between 1994–2001, but not previously reported, are indicated by a pound sign (#). Species are listed following the taxonomic scheme in Hawksworth et al. (1995).

PHYLUM ASCOMYCOTA

(CALICIALES)

Mycocaliciaceae

Phaeocalicium polyporaenum (Nylander) Tibell on *Trichaptum bifforme* (Fries) Ryvar den. Delaware County. BSUHM 375.

(HYPERCREALES)

Hypocreaceae

Hypomyces chrysospermus Tulasne & C. Tulasne (on a bolete); Synonym: *Apiocrea chrysosperma* Tulasne & C. Tulasne. Common names: Bolete Mold, Golden Hypomyces, Bolete Eater. Grant County. BSUHM 376.

(LECANORALES)

Physciaceae

Physcia aipolia (Ehrhart : Humpe) Fürnrohr. Common names: Hoary Rosette Lichen, Hoary Physcia. Henry County. BSUHM 377.

(LEOTIALES)

Leotiaceae

Bisporella citrina (Batsch : Fries) Korf & Carpenter*; Synonyms: *Calycella citrina* (Hedwig) Boudier, *Helotium cirinum* Fries. Common names: Yellow Fairy Cups, Orange Wood Cup. Delaware County. BSUHM 378.

Crinula caliciiformis (Fries) Fries. NOTE: *Crinula caliciiformis*, an erect club-shaped asexual stage, is the anamorph of *Holwaya mucida* (Schulzer) Korf & Abawi, a saucer-shaped sexual stage. *Holwaya* is in the Leotiaceae. Delaware County. BSUHM 379.

Hymenoscyphus fructigenus (Bulliard : Fries) S.F. Gray. Common names: Acorn Cup, Nut Disco. Delaware County. BSUHM 476.

Sclerotiniaceae

Ciboria peckiana (Cooke) Korf; Synonyms: *Rutstroemia macrospora* (Cooke) Korf, *Rutstroemia macrospora* (Peck) Kanouse. Common name: Common Wood Ciboria. Delaware County. BSUHM 380.

(PEZIZALES)

Otideaee

Scutellinia scutellata (Linnaeus : Fries) Lambot- te; Synonym: *Peziza scutellata* Linnaeus : Fries.

Common names: Eyelash Cup, Molly Eye-winker, Eyelash Pixie Cup. Henry County. BSUHM 381.

Sarcoscyphaceae

Sarcoscypha occidentalis (Schweinitz) Saccardo. Common name: Stalked Scarlet Cup. Grant County. BSUHM 382.

(RHYTISMATALES)

Rhytismataceae

Rhytisma acerinum (Persoon) Fries. Common name: Tar Spot of Maple. Delaware County. BSUHM 383.

PHYLUM BASIDIOMYCOTA

(AGARICALES)

Agaricaceae

Agaricus peculator Murrill[#]; Synonym: *Agaricus placomyces* Peck. Delaware County. BSUHM 58.

Lepiota cristata (Albertini & Schweinitz : Fries) Kummer[#]; Synonym: *Leucoagaricus cristata* (Albertini & Schweinitz : Fries) Kummer. Common names: Stinking Parasol, Malodorous Lepiota, Crested Lepiota, Brown-eyed Parasol, Stinking Dapperling. Delaware County. BSUHM 59, 95.

Lepiota procera (Scopoli : Fries) S.F. Gray[#]; Synonyms: *Macrolepiota procera* (Scopoli : Fries) Singer, *Leucocoprinus procernus* (Scopoli : Fries) Patouillard. Common names: Parasol Mushroom, Parasol. Delaware County. BSUHM 51.

Melanophyllum echinatum (Roth : Fries) Singer; Synonyms: *Melanophyllum haematospermum* (Bulliard) Kreisel, *Lepiota haematosperma* (Bulliard : Fries) Quélet. Common name: Red-gilled Agaric. Delaware County. BSUHM 384.

Amanitaceae

Amanita flavorubescens Atkinson[#]; Synonym: *Amanita flavorubens* Berkeley & Montagne. Common name: Yellow Blusher. Delaware County. BSUHM 63, 64.

Amanita vaginata (Bulliard : Fries) Vittadini[#]; Synonym: *Amanitopsis vaginata* (Bulliard : Fries) Roze. Common names: Grisette, Gray Flochet, Gray Pusher. Delaware County. BSUHM 98.

Coprinaceae

Coprinus insignis Peck[#]. Delaware County. BSUHM 94, 102.

Psathyrella velutina (Persoon : Fries) Singer[#]; Synonym: *Lacrymaria velutina* (Persoon : Fries) Konrad & Maublanc. Common names: Weeping Widow, Velvety Psathyrella. Delaware County. BSUHM 62.

Pseudocoprinus disseminatus (Persoon) Kühner; Synonyms: *Coprinellus disseminatus* (Persoon) Lange, *Coprinus disseminatus* (Persoon) S.F. Gray, *Psathyrella disseminata* (Persoon : Fries) Quélet.

Common names: Non-inky Coprinus, Little Helmets. Delaware County. BSUHM 385.

Psathyrella candolleana (Fries) Maire; Synonym: *Hypholoma appendiculatum* Bulliard. Common names: Common Crumble Cap, Common Psathyrella, Suburban Psathyrella. Delaware County. BSUHM 386.

Entolomataceae

Entoloma abortivum (Berkeley & Curtis) Donk[#]; Synonym: *Clitopilus abortivus* Berkeley & Curtis. Common names: Aborted Entoloma, Aborted Pinkgill. Delaware County. BSUHM 90, 91, 338.

Pluteaceae

Pluteus cervinus (Schaeffer) Kummer[#]; Synonym: *Pluteus atricapillus* (Batsch) Fayod. Common names: Deer Mushroom, Fawn Mushroom, Fawn-colored Pluteus, Fawn Shield-Cap. Delaware County. BSUHM 387.

Pluteus longistriatus Peck. Common name: Pleated Pluteus. Delaware County. BSUHM 388.

Strophariaceae

Pholiota albocrenulata (Peck) Saccardo.* Delaware County. BSUHM 389.

Tricholomataceae

Armillaria tabescens (Scopoli) Emel[#]; Synonym: *Armillariella tabescens* (Scopoli) Singer. Common name: Ringless Honey Mushroom. Delaware County. BSUHM 390.

Cheimonophyllum candidissimum (Berkeley & Curtis) Singer. Common name: White Oysterette. Delaware County. BSUHM 391.

Clitopilus prunulus (Scopoli : Fries) Kummer.[#] Common names: Sweetbread Mushroom; The Miller (because it has the smell of flour). Delaware County. BSUHM 46, 71.

Crinipellis zonata (Peck) Patouillard; Synonym: *Collybia zonata* Peck. Common names: Zoned-cap Collybia, Zoned Crinipellis. Delaware County. BSUHM 392.

Gymnopus biformis (Peck) Halling; Synonym: *Collybia biformis* (Peck) Singer. Delaware County. BSUHM 393.

Gymnopus dryophilus (Bulliard : Fries) Murrill; Synonym: *Collybia dryophila* (Bulliard : Fries) Kummer. Common name: Oak-loving Collybia. Delaware County and Henry County. BSUHM 29, 184, 477, 478.

Gymnopus subnudus (Ellis : Peck) Halling; Synonym: *Collybia subnuda* (Ellis : Peck) Gilliam. Delaware County. BSUHM 394.

Hohenbuehelia angustata (Berkeley) Singer. Delaware County. BSUHM 395.

Laccaria ochropurpurea (Berkeley) Peck[#]; Synonym: *Clitocybe ochropurpurea* (Berkeley) Saccardo. Common names: Purple-gilled Laccaria, Purple-

ochre Tallowgill. Delaware County. BSUHM 55, 67, 68, 69.

Marasmiellus nigripes (Schweinitz) Singer; Synonym: *Heliomyces nigripes* (Schweinitz) Morgan. Common name: Black-footed Marasmius. Delaware County. BSUHM 396.

Marasmius delectans Morgan. Delaware County. BSUHM 397.

Marasmius pyrrocephalus Berkeley; Synonym: *Rhizomarasmius pyrrocephalus* (Berkeley) Petersen. Delaware County. BSUHM 398.

Marasmius rotula (Scopoli : Fries) Fries. Common names: Collared Parachute, Collared Horsehair, Pinwheel Marasmius, Little Wheel. Delaware County. BSUHM 43, 479.

Marasmius siccus (Schweinitz) Fries.* Common names: Orange Pinwheel, Orange Pinwheel Marasmius, Dry Marasmius. Delaware County. BSUHM 399.

Mycena corticola (Fries) Gray. Delaware County. BSUHM 400.

Mycena floccipes (Fries) Kühner; Synonym: *Hydropsis floccipes* (Fries) Singer. Delaware County. BSUHM 401.

Mycena haematopus (Fries) Quélet*; Synonyms: *Mycena haematopus* (Persoon : Fries) Kummer, *Mycena haematopoda* (Persoon : Fries) Kummer. Common names: Bleeding Mycena, Blood-foot Mushroom, Burgundy-drop Bonnet. Delaware County. BSUHM 402.

Mycena luteopallens (Peck) Saccardo*. Common name: Walnut Mycena. Delaware County and Henry County. BSUHM 403, 404.

Omphalina epichysium (Persoon) Quélet. Delaware County. BSUHM 405.

Omphalotus olearius (De Candolle : Fries) Singer; Synonyms: *Omphalotus illudens* (Schweinitz) Saccardo, *Clitocybe illudens* (Schweinitz : Fries) Saccardo. Common names: Jack O'Lantern Mushroom, False Chanterelle. Grant County and Henry County. BSUHM 406, 407.

Panellus stipticus (Bulliard : Fries) Karsten*; Synonyms: *Panellus stipticus* (Bulliard : Fries) Karsten; *Panus stipticus* Fries. Common names: Luminescent Panellus, Bitter Oyster. Delaware County and Henry County. BSUHM 408, 409.

Rhodotus palmatus (Bulliard : Fries) Maire*; Synonym: *Pleurotus subpalmatus* Fries. Common name: Netted Rhodotus. Delaware County and Grant County. BSUHM 410, 411.

Tricholomopsis decora (Fries) Singer; Synonym: *Tricholoma decorum* (Fries) Quélet. Common names: Prunes and Custard, Decorated Mop. Delaware County. BSUHM 412.

Xeromphalina tenuipes (Schweinitz) A.H. Smith; Synonym: *Collybia tenuipes* Schweinitz. Delaware County. BSUHM 413.

Xerula furfuracea (Peck) Redhead, Ginns, & Shoemaker*; Synonyms: *Collybia radicata* var. *fur-*

furacea Peck, *Oudemansiella radicata* (Relhan) Singer. Common names: Rooting Collybia, Rooted Agaric, Rooted Oudemansiella. Delaware County. BSUHM 414.

Xerula megalospora (Clements) Redhead, Ginns, & Shoemaker; Synonym: *Collybia radicata* var. *pusilla* Peck. Common names: Rooted Collybia, Lesser Rooting Xerula. Delaware County. GMM 6798.

(ATRACTIELLALES)

Phleogenaceae

Phleogena faginea (Fries) Link. Delaware County. BSUHM 415.

(AURICULARIALES)

Auriculariaceae

Auricularia auricula (Hooker) Underwood*; Synonyms: *Auricularia auricula-judae* (Fries) Schroeter, *Hirneola auricula-judae* (Linnaeus) Berkeley. Common names: Jelly Ear, Jew's Ear, Juda's Ear, Wood Ear, Tree Ear. Delaware County. BSUHM 416.

(BOLETALES)

Gyrodonaceae

Gyrodon merulioides (Schweinitz) Singer*; Synonyms: *Boletinellus merulioides* (Schweinitz) Murrill, *Boletinus porosus* (Berkeley) Peck. Common names: Ash-tree Bolete, Shallow Pore Bolete. Delaware County. BSUHM 38.

Gyroporus castaneus (Bulliard : Fries) Quélet#. Synonym: *Boletus castaneus* Fries. Common name: Chestnut Bolete. Delaware County. BSUHM 45.

Strobilomycetaceae

Tylopilus indecisis (Peck) Murrill*; Synonym: *Boletus indecisis* Peck. Common names: Indecisive Bolete, Question Bolete. Delaware County. BSUHM 60, 61, 75-78.

Xerocomaceae

Phylloporus rhodoxanthus (Schweinitz : Fries) Bresadola*; Synonyms: *Paxillus rhodoxanthus* (Schweinitz) Ricken, *Phylloporus pelletieri* (Lévillé) Quélet. Common names: Gilled Bolete, Goldgills. Delaware County. BSUHM 52.

(CANTHARELLALES)

Cantharellaceae

Cantharellus cibarius Fries#. Common names: Chanterelle, Yellow Chanterelle, Golden Chanterelle, Girolle, Pfifferling. Delaware County. BSUHM 22, 70, 337.

Hydnaceae

Climacodon septentrionale (Fries) Karsten; Synonyms: *Steccherinum septentrionale* Fries, *Hydnum*

septentrionale Fries. Common name: Northern Tooth. Delaware County. BSUHM 417.

(CORTINARIALES)

Cortinariaceae

Gymnopilus liquiritae (Persoon) Karsten. Delaware County. BSUHM 418.

Simocybe centunculus (Fries) Karsten; Synonyms: *Naucoria centuncula* (Fries) Gillet, *Ramicola centunculus* (Fries) Watling. Common name: American Simocybe. Delaware County. BSUHM 419.

Crepidotaceae

Crepidotus crocophyllus (Berkeley) Saccardo. Delaware County. BSUHM 420.

(DACRYMYCETALES)

Dacrymycetaceae

Calocera cornea (Batsch : Fries) Fries*; Synonym: *Calocera palmata*, (Schumacher : Fries) Fries. Common names: Small Staghorn, Yellow Staghorn Fungus, Club-like Tuning Fork, Yellow False Coral. Delaware County. BSUHM 421.

(GANODERMATALES)

Ganodermataceae

Ganoderma applanatum (Persoon) Patouillard*; Synonyms: *Ganoderma lipsiense* (Batsch) Atkinson, *Fomes applanatus* (Persoon) Gillet, *Polyporus applanatus* (Persoon) Wallroth. Common names: Artist's Conk, Artist's Fungus, Designer's Mushroom. Delaware County. BSUHM 422.

Ganoderma lucidum (Curtis : Fries) Karsten*. Common names: Ling-zhi, Reishi, Ling-chih, Manentake. Delaware County. BSUHM 423.

(HERICIALES)

Clavicornaceae

Clavicornia pyxidata (Persoon : Fries) Doty; Synonym: *Artomyces pyxidatus* (Persoon) Jülich. Common names: Crown Coral Fungus, Crown Coral Mushroom, Crown-tipped Coral Fungus. Grant County and Henry County. BSUHM 424, 425.

Hericiaceae

Hericium coralloides (Scopoli : Fries) S.F. Gray*; Synonym: *Hericium ramosum* (Bulliard) Letellier. Common name: Comb Tooth. Delaware County and Henry County. BSUHM 426, 427.

Lentinellaceae

Lentinellus cochleatus (Persoon : Fries) Karsten; Synonym: *Lentinus cochleatus* Persoon. Common names: Aniseed Cockleshell, Cockleshell Fungus, Cockleshell Lentinus. Henry County. BSUHM 428.

Lentinellus ursinus (Fries) Kühner*; Synonym: *Lentinus ursinus* Fries. Common name: Bear Lentinus. Delaware County. BSUHM 429.

(HYMENOGYSALES)

Hymenochaetales

Inonotus dryadeus (Persoon : Fries) Murrill; Synonym: *Polyporus dryadeus* Persoon : Fries. Common names: Warty Oak Polypore, Oak Bracket. Delaware County. BSUHM 430.

Inonotus glomeratus, (Peck) Murrill; Synonym: *Polyporus glomeratus* Peck. Common name: Green-pored Bracket. Grant County. BSUHM 431.

Phellinus gilvis (Schweinitz) Patouillard*; Synonym: *Polyporus gilvis* (Schweinitz) Fries. Common names: Mustard-yellow Polypore, Oak Conk. Delaware County. BSUHM 432.

(LYCOPERDALES)

Geastraceae

Geastrum saccatum Fries*. Common names: Earthstar, Nested Earthstar, Sessile Earthstar, Rounded Earthstar. Delaware County and Grant County. BSUHM 433, 480.

Lycoperdaceae

Calvatia gigantea (Batsch : Persoon) Lloyd*; Synonyms: *Lycoperdon giganteum* Batsch : Persoon, *Langermannia gigantea* (Batsch : Persoon) Rostkiovius, *Bovista gigantea* (Batsch : Persoon) Nees, *Calvatia maxima* Schaeffer. Common name: Giant Puffball. Delaware County. BSUHM 111, 112.

Lycoperdon perlatum Persoon*; Synonym: *Lycoperdon gemmatum* Batsch. Common names: Puffball, Devil's Snuffbox, Pearly Puffball, Warty Puffball, Gem-studded Puffball, Common Puffball. Delaware County. BSUHM 114.

(NIDULARIALES)

Nidulariaceae

Crucibulum laeve (Hudson) Kambly; Synonym: *Crucibulum vulgare* Tulasne & C. Tulasne. Common names: Common Bird's Nest Fungus, White Bird's Nest, White-egg Bird's Nest. Grant County. BSUHM 434.

Cyathus stercoreus (Schweinitz) De Toni. Common names: Dung Loving Bird's Nest Fungus, Bird's Nest Fungus. Delaware County. BSUHM 435.

(PORIALES)

Corioliaceae

Abortiporus biennis (Bulliard : Fries) Singer; Synonyms: *Polyporus biennis* (Bulliard : Fries) Fries, *Polyporus abortivus* Peck, *Daedalea biennis* Bulliard : Fries, *Heteroporus biennis* (Bulliard : Fries) Lázaro. Common name: Blushing Rosette. Delaware County. BSUHM 436.

Bjerkandera adusta (Willdenow : Fries) Karsten; Synonyms: *Polyporus adustus* (Willdenow) Fries, *Gloeoporus adustus* (Willdenow : Fries) Pilát.

Common names: Gray-pored mushroom, Smoky Polypore, Smoky Bracket. Delaware County. BSUHM 437.

Cerrena unicolor (Bulliard : Fries) Murrill*; Synonyms: *Trametes unicolor* (Bulliard) Pilát, *Daedalea unicolor* Bulliard : Fries. Common name: Mossy Maze Polypore. Delaware County. BSUHM 438.

Daedaleopsis confragosa (Bolton : Fries) Schroeter; Synonyms: *Daedalea confragosa* (Bolton : Fries) Fries, *Trametes rubescens* (Albertini & Schweinitz) Fries. Common names: Thin-maze Flat Polypore, Thin-walled Maze Polypore, Blushing Bracket. Henry County. BSUHM 439.

Daedalea quercina Fries. Common names: Maze-gill Fungus, Oak Maze-gill, Thick-maze Oak Polypore. Delaware County. BSUHM 440.

Gripora frondosa (Dickson : Fries) S.F. Gray; Synonym: *Polyporus frondosus* (Dickson) Fries. Common names: Maitake, Hen of the Woods, Sheep's Head. Delaware County. BSUHM 441.

Hapalopilus nidulans (Persoon : Fries) Karsten; Synonyms: *Polyporus nidulans* Fries, *Polyporus rutilans* (Fries) Karsten. Common names: Tender Nesting Polypore, Cinnamon Bracket. Delaware County. BSUHM 442.

Laetiporus cincinnatus (Morgan) Burdsall, Banik & Volk; Synonyms: *Laetiporus sulphureus* var. *semialbinus* Peck, *Polyporus sulfureus* var. *semialbinus* Peck. Common name: White-pored Chicken of the Woods. Delaware County. BSUHM 443.

Laetiporus sulphureus (Bulliard : Fries) Murrill var. *sulphureus*; Synonyms: *Laetiporus sulphureus* (Bulliard : Fries) Murrill, *Polyporus sulphureus* (Bulliard : Fries) Fries. Common names: Sulphur Polypore, Sulphur Shelf, Chicken of the Woods, Chicken Mushroom, Rooster Comb. Delaware County. BSUHM 444.

Perenniporia ohioensis (Berkeley) Ryvar den; Synonym: *Trametes ohioensis* Berkeley. Delaware County and Grant County. BSUHM 445, 446.

Trametes conchifer (Schweinitz : Fries) Pilát; Synonyms: *Poronidulus conchifer* (Schweinitz) Murrill, *Polyporus conchifer* (Schweinitz) Fries. Common name: Little Nest Polypore. Delaware County and Henry County. BSUHM 447, 448.

Trametes versicolor (Linnaeus : Fries) Pilát*; Synonyms: *Coriolus versicolor* (Linnaeus : Fries) Quélet, *Polyporus versicolor* (Linnaeus) Fries. Common names: Turkey Tails, Multicolored Polypore, Many-zoned Polypore, Kawaratake, Yun-zhi. Delaware County. BSUHM 449.

Tyromyces fumidiceps Atkinson. Delaware County. BSUHM 450.

Lentinaceae

Phyllotopsis nidulans (Persoon : Fries) Singer*; Synonyms: *Pleurotus nidulans* (Persoon) Kummer, *Claudopus nidulans* Persoon. Common name:

Orange Mock Oyster. Delaware County. BSUHM 451.

Pleurotus pulmonarius (Fries) Quélet. Delaware County. BSUHM 452.

Polyporaceae

Polyporus alveolaris (De Candolle : Fries) Bondartsev & Singer; Synonyms: *Polyporus mori* (Pollini : Fries) Fries, *Favolus alveolaris* (De Candolle : Fries) Quélet. Common name: Hexagonal-pored Polypore. Henry County. BSUHM 453.

Polyporus arcularius (Batsch) Fries. Common names: Spring Polypore, Fringed Polypore. Delaware County. BSUHM 454.

Polyporus badius (Persoon) Schweinitz*; Synonym: *Polyporus picipes* Fries. Common names: Bay-colored Polypore, Black-footed Polypore. Delaware, Grant, and Henry counties. BSUHM 455, 456, 457.

Polyporus elegans Bulliard : Fries*; Synonym: *Polyporus varius* (Persoon) Fries (by some mycologists). Common names: Elegant Polypore, Black-footed Polypore. Delaware County and Grant County. BSUHM 458, 459.

Polyporus squamosus (Hudson : Fries) Fries*. Common names: Dryad's Saddle, Pheasant's-back Polypore. Delaware County. BSUHM 460.

(RUSSULALES)

Russulaceae

Lactarius piperatus (Fries) S.F. Gray#; Synonym: *Lactarius pergamenus* (Swartz) Fries. Common names: Peppery Lactarius, Peppery Milkcap, Peppery Milky, Peppery White Milkcap. Delaware County. BSUHM 42.

Lactarius psammicola f. *glaber* Hesler & Smith#. Delaware County. BSUHM 79-81.

Lactarius volemus (Fries) Fries var. *volemus*#. Common names: Tawny Milkcap Mushroom, Weeping Milkcap, Chichitake, Voluminous-latex Milky, Bradley, Tawny Lactarius, Apicot Milkcap. Delaware County. BSUHM 74.

Russula albida Peck. Delaware County. BSUHM 461.

Russula brevipes Peck; Synonym: *Russula delicata* Fries. Common names: Short-stalked White Russula, Short-stemmed Russula. Henry County. BSUHM 462.

Russula fragilis (Persoon) Fries. Common names: Fragile Red Russula, Fragile Russula. Delaware County. BSUHM 463.

(SCHIZOPHYLLALES)

Schizophyllaceae

Schizophyllum commune Fries*. Common name: Common Split Gill. Delaware County and Henry County. BSUHM 464, 465.

(SCLERODERMATALES)

Sclerodermataceae

Scleroderma areolatum Ehrenberg; Synonym: *Scleroderma lycoperdoides* Schweinitz. Common name: Common Earthball. Delaware County. BSUHM 466.

Scleroderma cepa (Vaillant) Persoon; Synonym: *Scleroderma flavidum* Ellis & Everhart. Common names: Earthball, Stone Fungus, Onion-shaped Scleroderma, Smooth Earthball. Delaware County. BSUHM 467.

(STEREALES)

Meruliaceae

Gloeoporus dichrous (Fries : Fries) Bresadola*; Synonyms: *Caloporus dichrous* (Fries) Ryvarden. *Polyporus dichrous* Fries. Common name: Gelatinous-pored Polypore. Delaware County. BSUHM 468.

Steccherinaceae

Irpx lacteus (Fries : Fries) Fries*; Synonym: *Polyporus tulipiferus* (Schweinitz) Overholts. Common name: Milk-white Toothed Polypore. Delaware County. BSUHM 469.

Steccherinum ochraceum (Persoon : Fries) S.F. Gray. Common name: Ochre Spreading Tooth. Delaware County. BSUHM 470.

Stereaceae

Stereum complicatum (Fries) Fries; Synonym: *Stereum rameale* (Schweinitz) Burt. Common names: Crowded Parchment, Parchment Fungus. Delaware County. BSUHM 471.

Stereum ostrea (Blume & Nees : Fries) Fries; Synonyms: *Stereum fasciatum* Schweinitz, *Stereum lobatum* Fries. Common name: False Turkey-tail. Delaware County and Henry County. BSUHM 472, 473.

(TREMELLALES)

Exidiaceae

Ductifera pululahuana (Patouillard) Wells; Synonym: *Exidia alba* (Lloyd) Burt. Common name: Pale Jelly Roll. Delaware County. BSUHM 474.

(MITOSPORIC FUNGI)

Pleurocolla compressa (Ellis & Everhart) Diehl; Synonym: *Dendrodochium compressum* Ellis & Everhart. Delaware County. BSUHM 475.

PHYLUM MYXOMYCOTA

(LICEALES)

Lycogalaceae

Lycogala epidendrum (Linnaeus) Fries#. Common names: Wolf's Udder, Wolf's Milk Slime Mold, Wolf's Milk Slime, Toothpaste Slime. Delaware County. BSUHM 146, 147, 334.

Trichiaceae

Hemitrichia clavata (Persoon) Rostafinski#. Common names: Club-Shaped Slime Mold, Yellow-fuzzy Cone Slime. Delaware County. BSUHM 168.

Trichia flavoginea (Batsch) Persoon#. Delaware County. BSUHM 170.

(PROTOSTELIALES)

Ceratiomyxaceae

Ceratiomyxa fruticulosa (Müller) Macbride. Common name: Coral Slime. Grant County. BSUHM 481.

LITERATURE CITED

- Arora, D. 1986. *Mushrooms Demystified*, 2nd ed. Ten Speed Press. Berkeley, California. 959 pp.
- Barron, G. 1999. *Mushrooms of Northeast North America*. Lone Pine Publishing. Renton, Washington. 336 pp.
- Badger, K.S., D.G. Ruch, A. Schoultz, J.E. Taylor & B.E. Hones. 1998. Structure and composition of Ginn Woods, an old-growth forest in East-Central Indiana. *Proceedings of the Indiana Academy of Science* 107:1-15.
- Bessette, A.E., A.R. Bessette & D.W. Fischer. 1997. *Mushrooms of Northeastern North America*. Syracuse University Press. Syracuse, New York. 582 pp.
- Bessette, A.E., O.K. Miller, A.R. Bessette & H.H. Miller. 1995. *Mushrooms of North America in Color: A Field Guide Companion to Seldom-Illustrated Fungi*. Syracuse University Press. Syracuse, New York. 172 pp.
- Bessette, A.E., W.C. Roody & A.R. Bessette. 2000. *North American Boletes*. Syracuse University Press. Syracuse, New York. 396 pp.
- Breitenbach, J. & F. Kränzlin. 1986. *Fungi of Switzerland. Volume 2: Non-Gilled Fungi*. Verlag Mykologia. Lucerne, Switzerland. 412 pp.
- Breitenbach, J. & F. Kränzlin. 1991. *Fungi of Switzerland. Volume 3: Boletes and Agarics (1st part)*. Strobilomycetaceae, Boletaceae, Paxillaceae, Gomphidiaceae, Hygrophoraceae, Tricholomataceae, Polyporaceae (lamellate). Verlag Mykologia. Lucerne, Switzerland. 359 pp.
- Breitenbach, J. & F. Kränzlin. 1995. *Fungi of Switzerland. Volume 4: Agarics (2nd Part)*. Entolomataceae, Pluteaceae, Amanitaceae, Agaricaceae, Coprinaceae, Strophariaceae. Verlag Mykologia. Lucerne, Switzerland. 370 pp.
- Breitenbach, J. & F. Kränzlin. 2000. *Fungi of Switzerland. Volume 5: Agarics (3rd Part)*. Cortinariaceae. Verlag Mykologia. Lucerne, Switzerland. 338 pp.
- Dennis, R.W.G. 1981. *British Ascomycetes*. Vauduz. J. Cramer. 625 pp.
- Gilbertson, R.L. & L. Ryvarden. 1987. *North*

- American Polypores. Fungiflora. Oslo, Norway. 885 pp.
- Gray, H.H. 2000. Physiographic divisions of Indiana. Indiana Geological Survey Special Report 61. 15 pp.
- Hawksworth, D.L., P.M. Kirk, B.C. Sutton & D.N. Pegler. 1995. Ainsworth & Bisby's Dictionary of the Fungi. 8th ed. International Mycological Institute, An Institute of CAB International. 616 pp.
- Hesler, L.R. 1967. *Entoloma* in Southeastern North America. Verlag Von J. Cramer. New York, New York. 195 pp.
- Hesler, L.R. 1969. North American Species of *Gymnopilus*. Hafner Publishing Company. New York, New York. 117 pp.
- Hesler, L.R. & A.H. Smith. 1979. North American Species of *Lactarius*. University of Michigan Press. Ann Arbor, Michigan. 841 pp.
- Hillis, J.H. & T. Neely. 1986. Soil Survey of Henry County, Indiana. U.S.D.A., Soil Conservation Service. Washington, D.C. 122 pp.
- Homoya, M.A., D.B. Abrell, J.R. Aldrich & T.W. Post. 1985. The Natural Regions of Indiana. Proceedings of the Indiana Academy of Science 94:245–268.
- Huffman, D.M., L.H. Tiffany & G. Knaphus. 1989. Mushrooms & Other Fungi of the Midcontinental United States. Iowa State University Press. Ames, Iowa. 326 pp.
- Huffman, K.K. 1972. Soil Survey of Delaware County, Indiana. U.S.D.A., Soil Conservation Service. Washington, D.C. 70 pp.
- Indiana Geological Today. 2001. Indiana Geological Survey Web Site, Maps and Charts, Scans of Old Maps, Glacial Geology – Mallott, <http://mapsandcharts/oldmaps/mallott2web.jpg>.
- Jensen, E.L. 1988. Soil Survey of Grant County, Indiana. U.S.D.A., Soil Conservation Service. Washington, D.C. 122 pp.
- Lincoff, G.H. 1981. Audubon Society Field Guide to North American Mushrooms. Alfred A. Knopf, Inc. New York, New York. 926 pp.
- Mallott, C.A. 1922. The physiography of Indiana. Pp. 104–124 & 141–152, *In* Handbook of Indiana Geology. Department of Conservation, State of Indiana. Wm. B. Burford. Indianapolis, Indiana.
- Martin, G.W. 1969. Revision of the North Central Tremellales. Verlag Von J. Cramer. New York, New York. 122 pp.
- Miller, O.K., Jr. 1979. Mushrooms of North America, 3rd ed. E.P. Dutton. New York, New York. 368 pp.
- Moser, M. 1983. Keys to Agarics and Boleti (Polyporales, Boletales, Agaricales, Russulales). Roger Phillips. London, England. 535 pp.
- Phillips, R. 1991. Mushrooms of North America. Little, Brown and Co. Boston, Massachusetts. 319 pp.
- Roody, W.C. 2003. Mushrooms of West Virginia and the Central Appalachians. The University Press of Kentucky. Lexington, Kentucky. 520 pp.
- Ruch, D.G., M.C. Robbins & K. Nurtjahja. 2001. The lignicolous fungi of Ginn Woods, Delaware County, Indiana. Proceedings of the Indiana Academy of Science 110:79–93.
- Ruch, D.G., B.G. Torke, C.R. Reidy, K.S. Badger & P.E. Rothrock. 2002. The flora and vegetational communities of Wilbur Wright Fish and Wildlife Area, Henry County, Indiana. Proceedings of the Indiana Academy of Science 111(2): 147–176.
- Smith, A.H. 1947. North American Species of *Mycena*. Verlag Von J. Cramer. New York, New York. 521 pp.
- Smith, A.H. & H.D. Thiers. 1971. The Boletes of Michigan. University of Michigan Press. Ann Arbor, Michigan. 428 pp.
- Wayne, W.J. 1965. The Crawfordville and Knightstown Moraines in Indiana. Indiana Geological Survey Report of Progress 28. 15 pp.

Manuscript received 3 December 2003, revised 7 September 2004.