# A PRELIMINARY CHECKLIST OF ARIZONA MACROFUNGI

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# **ABSTRACT**

A checklist of 1290 species of nonlichenized ascomycetaceous, basidiomycetaceous, and zygomycetaceous macrofungi is presented for the state of Arizona. The checklist was compiled from records of Arizona fungi in scientific publications or herbarium databases. Additional records were obtained from a physical search of herbarium specimens in the University of Arizona's Robert L. Gilbertson Mycological Herbarium and of the author's personal herbarium. This publication represents the first comprehensive checklist of macrofungi for Arizona. In all probability, the checklist is far from complete as new species await discovery and some of the species listed are in need of taxonomic revision. The data presented here serve as a baseline for future studies related to fungal biodiversity in Arizona and can contribute to state or national inventories of biota.

# **INTRODUCTION**

Arizona is a state noted for the diversity of its biotic communities (Brown 1994). Boreal forests found at high altitudes, the 'Sky Islands' prevalent in the southern parts of the state, and ponderosa pine (*Pinus ponderosa* P.& C. Lawson) forests that are widespread in Arizona, all provide rich habitats that sustain numerous species of macrofungi. Even xeric biomes, such as desertscrub and semidesert-grasslands, support a unique mycota, which include rare species such as *Itajahya galericulata* A. Møller (Long & Stouffer 1943b, Fig. 2c). Although checklists for some groups of fungi present in the state have been published previously (e.g., Gilbertson & Budington 1970, Gilbertson et al. 1974, Gilbertson & Bigelow 1998, Fogel & States 2002), this checklist represents the first comprehensive listing of all macrofungi in the kingdom Eumycota (Fungi) that are known from Arizona. In addition to providing a taxonomic framework to aid those workers whose investigations involve macrofungi found in Arizona, checklists such as this contribute to state and national inventories of biota and can aid future studies related to fungal and biological diversity.

This checklist includes 1290 nonlichenized species of macrofungi in the phyla Ascomycota, Basidiomycota, and Zygomycota that are present in Arizona. Species of lichenized fungi that are found in the region have been covered extensively in other publications (e.g., Nash et al. 2002, Nash et al. 2004, Sweat et al. 2004). The term macrofungi (or macromycetes) can be defined as species of fungi that produce fruiting bodies visible without the aid of a microscope (Kirk et al. 2001), and can be further defined to include only those fungi that produce fruiting bodies greater than one centimeter in height and/or width (Redhead 1997). The term refers specifically to the sporocarp of the fungal organism rather than the mycelium, which lives underground or within decomposing substrata such as rotting logs. Macrofungi

include well-known groups that have been described by popular terms such as 'cup fungi', 'bracket fungi', 'mushrooms', 'puffballs', and 'truffles'. These terms reflect the morphological diversity (Figs. 1 & 2) that is encountered within the fungi.

Overall, fungal organisms play important roles in the Earth's ecosystems. Saprobic macrofungi perform a critical function in carbon cycling by decomposing woody debris from the forest floor, thus making this source of carbon available to other organisms (Gilbertson & Bigelow 1998). Because their hyphae act as an interface for nutrient absorption between soil and vegetation, ectomycorrhizal fungi, which produce macroscopic fruiting bodies, are considered to be invaluable components of forest ecosystems (Read & Perez-Moreno 2003). Furthermore, it has been noted that hypogeous species of macrofungi can be an important food source for fauna such as the tassel-eared squirrel, *Sciurus aberti* Woodhouse (States 1983).

Although there is a perceived paucity of literature covering macrofungi from the southwestern United States (Nishida et al. 1992), the tremendous efforts of field mycologists such as R.L. Gilbertson and J.S. States have left numerous records of Arizona macrofungi in publications and as herbarium specimens. Also of note are W.H. Long's specimens in the U.S. National Fungus Collection and his pioneering studies in the gasteromycetes (e.g., Long 1941, Long 1944, Long & Stouffer 1948a-b), which comprise the majority of records of macrofungi known from Arizona prior to the 1950's. More recently, there has been an ongoing diversity study of the mycoflora found in the 'Sky Islands' of southern Arizona's Chiricahua Mountains (Nishida et al. 1992). Considering that approximately 5% of the Earth's fungal species have been described (Hawksworth 2001), it is probable that additional species of macrofungi await discovery in Arizona. Indeed, several new species from the state have been recognized and now await formal description (Bessette et al. 2000, Tulloss 2005).

# **METHODS**

The species of macrofungi cited in this paper have been culled from a survey of the scientific literature. Additional state records were obtained by searching herbarium databases that are available online through the New York Botanical Garden (NY, http://sciweb.nybg.org/science2/hcol/fungi/index.asp), Oregon State (OSC, http://ocid.nacse.org/research/herbarium/myco/), Herbarium University of Michigan Fungus Collection (MICH, http://herbarium.lsa.umich.edu/), University of Tennessee Herbarium (TENN, http://tenn.bio.utk.edu/fungus/), and the U.S. National Fungus Collections (BPI, http://www.ars.usda.gov/main/). It should also be noted that many of the species cited from the literature are also deposited as specimens in herbaria (e.g., Gilbertson et al. 1974, Gilbertson & Bigelow 1998, Gilbertson & Ryvarden 1986-1987, Long & Stouffer 1948a-b, Nishida et al. 1992, States 1984, Thiers 1976). Data from the literature and herbarium databases were supplemented by records acquired from the author's personal herbarium (hb. STB) and from the University of Arizona's Robert L. Gilbertson Mycological Herbarium (ARIZ) after a physical search of specimens housed there.

All of the records obtained were entered into a database that contained 3253 individual records, each citing a source as well as the binomial as it was originally published. If synonyms existed, the current name cited online in the CABI Index Fungorum (http://www.indexfungorum.org) was used. Species names that appeared in multiple records were reduced to one entry for the checklist. The entries are followed by annotations (in brackets), which indicate the source record for each species included in the checklist (see Annotation Key below). If no previous published report of the species' occurrence in Arizona existed, then the annotation 'NR' indicates a new record. The system of classification used follows that given in the 9<sup>th</sup> edition of Ainsworth and Bisby's Dictionary of Fungi (Kirk et al. 2001). This system has integrated much of the current molecular phylogenetic data into its classification scheme. Abbreviations for fungal authors follow the standards used in Authors of Plant Names (Brummit & Powell 1992). All records in the original database are accessible online through the Arizona State University Natural History Collections (http://nhc.asu.edu/nhc/azmacrofungi/) as part of an online version of the checklist, which will be updated as additional records become available in the future.

# **DISCUSSION AND CONCLUSIONS**

Approximately 35% of the species that appear in this checklist are reported from Arizona for the first time. For this study, it was not possible to examine all specimens documented in the checklist for the purpose of verifying species level identifications. Besides being a monumental task, such an endeavor would have been beyond the expertise of the author. Therefore, it is quite possible that the checklist contains some inaccuracies. For example, it has been suggested that many of the Amanita species appearing in the checklist (e.g., A. bisporigera, A. caesarea, A. citrina, A. crocea, A. fulva, A. gemmata, A. pantherina, A. vaginata, A. verna, and A. virosa) are likely to be misapplied European species names (Tulloss, pers. comm.). In cases such as these, further study by qualified mycologists is required before accurate determinations can be made. However, it is very likely that the majority of the species contained in the list, particularly those cited from the literature, are accurate as many have been identified by mycologists who are specialists in their field (e.g., Bates 2004, Desjardin et al. 1992, Fatto 2000, Gilbertson & Ryvarden 1986-1987, Hesler & Smith 1979, Long & Stouffer 1948a-b, Nishida et al. 1992, States & Fogel 1999, Thiers 1976, Tulloss 2005, Wright 1987). The checklist should be considered provisional as a great deal of exploration, investigation, and taxonomic revision is required before a complete checklist of Arizona macrofungi is obtainable. This publication represents progress toward that goal.

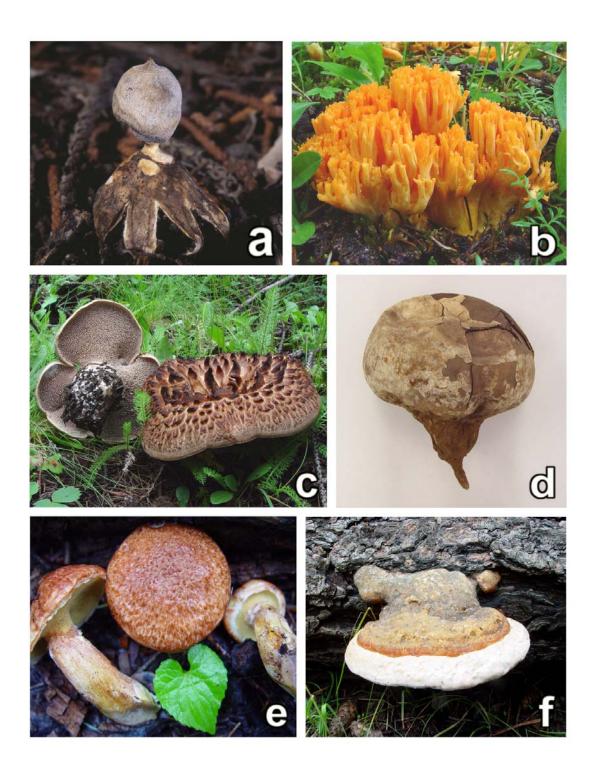
# **ACKNOWLEDGMENTS**

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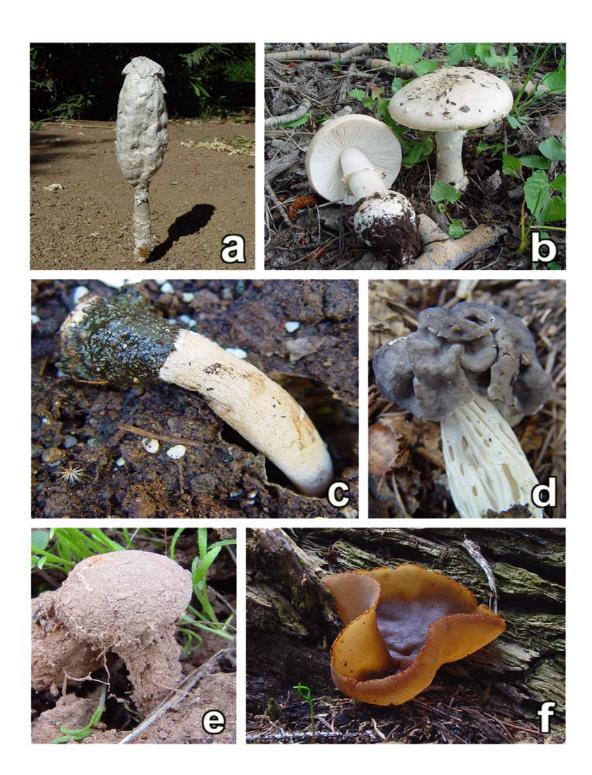
Boschmann, Darvin DeShazer, and Michael Wood contributed by reading over the manuscript, offering suggestions and/or taxonomic guidance. Robin T. Schroeder patiently assited me in making the original database available online through the web-based version of the checklist (http://nhc.asu.edu/nhc/azmacrofungi/). Dr. R. Fogel offered assistance in procuring records from the University of Michigan Fungus Collection database. Dr. R.E. Tulloss kindly reviewed the *Amanita* species and offered taxonomic advice. Dr. E.C. Vellinga amiably offered suggestions concerning the taxonomy and nomenclature of various taxa, including species in the genus *Lepiota*. The late, R.M. Fatto contributed *Russula* records and words of guidance through personal communications. Finally, I thank Dr. C.R. Leathers for introducing me to the Arizona mycota and Drs. D.E. Desjardin, T.H. Nash III, and R.W. Roberson for the role that they played in expanding my knowledge of the lichenized and nonlichenized fungi.

**Annotation Key.** Annotations [in brackets] follow each taxon, indicating those records that are new for Arizona (NR) and citing the source for each record with a number (see *Literature Cited*):

NR - New Record for Arizona; 1 - Arora 1979; 2 - Bates 2004; 3 - Burdsall & Gilbertson 1982; **4** – Cavaliere 1964; **5** – Demoulin 1972; **6** – Demoulin 1993; **7** – Desjardin et al. 1992; **8** – Fatto 2000; 9 - Fatto 2002; 10 - Fogel 1994; 11 - Fogel & Pacioni 1989; 12 - Fogel & States 2001; 13 -Fogel & States 2002; 14 - Gilbertson 1974; 15 - Gilbertson & Bigelow 1998; 16 - Gilbertson & Blackwell 1982; 17 - Gilbertson & Budington 1970; 18 - Gilbertson & Burdsall 1975; 19 - Gilbertson et al. 1976; 20 - Gilbertson & Canfield 1973; 21 - Gilbertson et al. 1979; 22 - Gilbertson & Lindsey 1975; 23 - Gilbertson & Lindsey 1978; 24 - Gilbertson & Lindsey 1989; 25 - Gilbertson & Lowe 1970; 26 - Gilbertson et al. 1974; 27 - Gilbertson & Ryvarden 1986; 28 - Gilbertson & Ryvarden 1987; **29** – Hesler & Smith 1979; **30** – Lindsey & Gilbertson 1975; **31** – Lindsey & Gilbertson 1977a; 32 – Lindsey & Gilbertson 1977b; 33 – Long 1941; 34 – Long 1944; 35 – Long 1946a; 36 – Long 1946b; **37** – Long & Miller 1945; **38** – Long & Stouffer 1943a; **39** – Long & Stouffer 1943b; **40** – Long & Stouffer 1946; 41 - Long & Stouffer 1948a; 42 - Long & Stouffer 1948b; 43 - McKnight 1985; 44 - Morse 1933; 45 - Nakasone & Gilbertson 1978; 46 - Nishida et al. 1992; 47 - Ranzoni 1968; **48** – Rizzo et al. 2003; **49** – Shear 1902; **50** – Smith 1974; **51** – States 1983; **52** – States 1984; **53** - States 1991; **54** - States & Fogel 1999; **55** - States & Gaud 1997; **56** - Thiers 1976; **57** - Tulloss 2005; **58** – Tulloss & Lindgren 1994; **59** – Wright 1987; **60** – ARIZ; **61** – BPI; **62** – MICH; **63** – NY; 64 - OSC; 65 - hb. STB; 66 - TENN; 67 - White Mountains checklist (pers. comm. C.R. Leathers); **68** – R.M. Fatto (pers. comm.)



**Macrofungi** Figure 1. Varying sporocarp morphology in nonlichenized macrofungi:
(a) Earthstar – *Geastrum minimum*; (b) Coral Fungus – *Ramaria* sp.; (c) Tooth Fungus – *Sarcodon imbricatus*; (d) Puffball – *Calvatia fragilis*; (e) Bolete – *Suillus lakei*; (f) Bracket Fungus – *Fomitopsis pinicola*.



**Macrofungi** Figure 2. Varying sporocarp morphology in nonlichenized macrofungi:
(a) Secotioid Fungus – *Podaxis pistillaris*; (b) Mushroom – *Amanita* sp.; (c) Stinkhorn – *Itajahya galericulata*; (d) Elvin Saddle – *Helvella lacunosa*; (e) Stalked Puffball – *Tulostoma* sp.; (f) Cup Fungus – *Peziza* sp.

# PRELIMINARY CHECKLIST OF ARIZONA MACROFUNGI

## **ASCOMYCOTA**

# Elaphomycetales

Elaphomyces decipiens Vittad. [11,13] Elaphomyces granulatus var. asperulus (Vittad.) Hawker [11] Elaphomyces granulatus var. granulatus Fr. [13,51,55] Elaphomyces reticulatus Vittad. [11,13] Elaphomyces verrucosus C.W. Dodge [13,51]

# Helotiales

Ascocoryne sarcoides (Jacq.: Fr.) J.W. Groves & D.E. Wilson [NR,60] Bisporella citrina (Batsch: Fr.) Korf & S.E. Carp. [NR,60,62] Chlorociboria aeruginosa (Oeder: Fr.) Seaver ex C.S. Ramamurthi, Korf & L.R. Batra [NR,61,62] Cudonia circinans (Pers.) Fr. [NR,60] Cudonia grisea Mains [NR,67] Cudonia lutea (Peck) Sacc. [NR,60] Mitrula gracilis P. Karst. [NR,60] Pachycudonia monticola (Mains) S. Imai [NR,62] Pachycudonia spathulata (S. Imai) S. Imai [NR,67] Spathularia flavida Pers.: Fr. [NR,60,61,62] Stromatinia gladioli (Drayton) Whetzel [NR,61]

#### **Hypocreales**

Cordyceps militaris (L.: Fr.) Link [NR,60] Cordyceps sobolifera (Hill ex Watson) Berk. & Broome [NR,60] Hypocrea citrina var. americana Canham [NR,61] Hypocrea citrina var. citrina (Pers.) Fr. [NR.60] Hypomyces aurantius (Pers.) Fuckel [NR,60] Hypomyces hyalinus (Schwein.) Tul. & C. Tul. [NR,60] Hypomyces lactifluorum (Schwein.) Tul. [NR,60,62] Hypomyces luteovirens (Fr.) Tul. & C. Tul. [NR,62,67] Hypomyces papyraceus (Ellis & Holw.) Seaver [NR,60]

Hypomyces polyporinus Peck [NR,60] Hypomyces rosellus (Alb. & Schwein.: Fr.) Tul. & C. Tul. [NR,60,61] Hypomyces viridis (Alb. & Schwein.) P. Karst. [NR,62] Podostroma alutaceum (Pers.) G.F. Atk. [NR,60]

## **Pezizales**

Aleuria aurantia (Pers.) Fuckel [NR,61] Aleuria rubra L.R. Batra [NR,64] Anthracobia melaloma (Alb. & Schwein.) Arnould [NR,62] Balsamia magnata Harkn. [11,51,55] Balsamia nigrescens Harkn. [13] Barssia oregonensis Gilkey [NR,64] Caloscypha fulgens (Pers.: Fr.) Boud. [NR,60,65] Carbomyces emergens Gilkey [13,60] Discina ancilis (Pers.) Sacc. [NR,62] Flavoscypha cantharella (Fr.) Harmaja [NR.62] Geopora arenicola (Lév.) Kers [NR,62] Geopora arenosa (Fuckel) S. Ahmad [NR.60] Geopora cooperi f. cooperi Harkn. [11,13,51,55,62] Geopora cooperi f. gilkeyae Burds. [13,51,62] Geopyxis carbonaria (Alb. & Schwein.: Fr.) Sacc. [NR,62] Geopyxis vulcanalis Peck [NR,60] Gyromitra esculenta (Pers.) Fr. [NR.62] Gyromitra gigas (Krombh.) Cooke [NR,60] Gyromitra infula (Schaeff.: Fr.) Quél. INR.60.61.621 Helvella acetabulum (L.) Quél. [NR,60,61,62] Helvella crispa (Scop.) Fr. [NR,60,61,62] Helvella elastica var. elastica Bull.: Fr. [NR,60,61] Helvella elastica var. macropoda Font Quer [NR,61] Helvella harrisonii N.S. Weber & Dissing nom. prov. [NR,60] Helvella lacunosa Afzel.: Fr. [NR,60,62] Helvella latispora Boud. [NR,62] Helvella leucomelaena (Pers.) Nannf. [NR,62] Helvella macropus (Pers.) P. Karst. [NR,61] Helvella queletii Bres. [NR,62]

Hydnobolites cerebriformis Tul. & C. Tul.

[13]

Mitrophora semilibera (DC.: Fr.) Lév. Daldinia vernicosa (Schwein.) Ces. & De [NR,62] Not. [NR,60] Morchella elata Fr. [NR,62] *Hypoxylon albolanatum* (Ellis & Everh.) P.M.D. Martin [NR,60] Morchella esculenta (L.: Fr.) Pers. [NR,60,61,62] Hypoxylon rubiginosum (Pers.) Fr. [NR.60] Morchella rufobrunnea Guzmán & F. Kretzschmaria deusta (Hoffm.: Fr.) P.M.D. Tapia [NR,62] Martin [NR,60] Otidea alutacea (Pers.) Massee [NR,62] Poronia punctata (L.) Fr. [NR,60,61] Otidea leporina (Batsch) Fuckel Xylaria hypoxylon (L.: Fr.) Grev. [45,60] [NR,60] Otidea onotica (Pers.: Fr.) Fuckel **BASIDIOMYCOTA** [NR,60] Patella albida (Schaeff.) Seaver Agaricales [NR,60] Abstoma townei (Lloyd) Zeller [NR,63] Peziza arvernensis Boud. [NR,60] Agaricus albolutescens Zeller [NR,62] Peziza concentrica Seaver [NR.60] Agaricus aridicola Geml, Geiser & Royse Peziza domiciliana Cooke [NR,60,62] [NR,61] Peziza ostracoderma Korf [47] Agaricus arvensis Schaeff.: Fr. [NR,62] Peziza repanda Pers. [NR,60,62] Agaricus augustus Fr. [NR,62] Pithya lacunosa (Ellis & Everh.) Seaver Agaricus bitorquis (Quél.) Sacc. [NR,60,62] [NR,60] Agaricus campestris L.: Fr. [4,60,62] Plectania nannfeldtii Korf [NR,60] Agaricus silvaticus Schaeff. [NR,60] Pyronema omphalodes (Bull.) Fuckel Agaricus silvicola (Vittad.) Peck [NR,60,62] [NR,60] Agaricus subfloccosus (J.E. Lange) Sarcosphaera coronaria (Jacq.) J. Hlaváček [NR,62] Schröt. [NR,60,62] Agaricus texensis (Berk. & M.A. Curtis) Scutellinia scutellata (L.: Fr.) Lambotte Geml, Geiser & Royse [NR,62] [NR,60,62] Agaricus xanthodermus Genev. [NR,62] Scutellinia umbrorum (Fr.) Lambotte Agrocybe pediades (Fr.) Fayod [NR,60] [NR,61] Amanita bisporigera G.F. Atk. [NR,57] Sowerbyella rhenana (Fuckel) J. Amanita caesarea (Scop.: Fr.) Pers. Moravec [NR,67] [4,60,62] Sphaerosporella hinnulea (Berk. & Amanita citrina (Schaeff.: Fr.) Pers. [NR,60] Broome) Rifai [NR,60] Amanita crocea (Quél.) Singer [NR,65] Tarzetta catinus (Holmsk.) Korf & J.K. Amanita eremites Tulloss nom. prov. [57] Rogers [NR,60,62] Amanita flavorubens (Berk. & Mont.) Sacc. Tarzetta cupularis (L.: Fr.) Svrček [1,57,62] [NR,62] Amanita fulva (Schaeff.) Fr. [NR,67] Trichophaea gregaria (Rehm) Boud. Amanita gemmata (Fr.) Gillet [NR,62] [NR,60] Amanita macerisolum Tulloss nom. prov. *Tuber dryophilum* Tul. [11,13,51,62] [57] Tuber irradians Gilkey [NR,62] Amanita muscaria subsp. flavivolvata Singer Tuber levissimum Gilkey [4,57,60,62,63] [11,13,51,55,62] Amanita nivalis Grev. [NR,62] Tuber monticola Harkn. [NR,61] Amanita novinupta Tulloss & J. Lindgr. Verpa conica (O.F. Müll.) Sw. [NR,65] [57,58] Amanita ocreata Peck [1] Xylariales Amanita pantherina (DC.: Fr.) Krombh. Biscogniauxia mediterranea (De Not.) [NR,60,62] Kuntze [NR,61] Amanita parcivolvata (Peck) E. J. Gilbert Daldinia concentrica (Bolton: Fr.) Ces. [NR,61] & De Not. [NR,60,61,62] Amanita prairiicola Peck [57] Daldinia eschscholzii (Ehrenb.) Rehm Amanita protecta Tulloss & G. Wright

[4,62]

Amanita rubescens Pers.: Fr. [4,46,60,62,63]

[NR.61]

Daldinia grandis Child [NR,61]

Amanita smithiana Bas [57] Amanita vaginata (Bull.: Fr.) Lam. [NR.60.62] Amanita verna (Bull.: Fr.) Lam. [NR,60,63] Amanita virosa (Fr.) Bertill. [NR,60] Amanita xylinivolva Tulloss, Ovrebo & Halling [57] Araneosa columellata Long [33,61] Armillaria mellea (Vahl: Fr.) P. Kumm. [4,14,15,26,60,62] Armillaria ostoyae (Romagn.) Herink [15,60] Asterophora parasitica (Bull.: Fr.) Singer [NR,67] Auriculariopsis albomellea (Bondartsev) Kotl. [15] Battarrea digueti Pat. & Har. [NR,60,61] Battarrea phalloides (Dicks.) Pers. [NR,60,61,62] Bovista aestivalis (Bonord.) Demoulin [NR,2,62,65] Bovista dermoxantha (Vittad.) De Toni [NR,2,63,65] Bovista plumbea Pers.: Pers. [NR,2,60,62,63,65] Calocybe constricta (Fr.) Kühner [NR,67] Calvatia bicolor (Lév.) Kreisel [NR,2,60,61,62,63] Calvatia booniana A.H. Sm. [NR,2,60,62] Calvatia craniiformis (Schwein.) Fr. [NR,2,60,62] Calvatia cyathiformis (Bosc) Morgan [NR,2,60,62,63] Calvatia fragilis (Vittad.) Morgan [NR,2,60,62,63] Calvatia leiospora Morgan [NR,2,60] Calvatia pachyderma (Peck) Morgan [2,6,60,62,63,65] Calvatia rugosa (Berk. & M.A. Curtis) D.A. Reid [NR,2,60,63] Catathelasma imperiale (Fr.) Singer [NR,67] [10] Catathelasma ventricosum (Peck) Singer [NR,67] Chlamydopus meyenianus (Klotzsch) Lloyd [40,61] Chlorophyllum agaricoides (Czern.) Vellinga [NR,61] Chlorophyllum molybdites (G. Mey.: Fr.) Massee [NR,60,62] Chlorophyllum rachodes (Vittad.) Vellinga [NR,60]

Clavaria purpurea Fr. [NR,60,62] Clavaria vermicularis Fr. [NR,62] Clitocybe brunneocephala H.E. Bigelow [NR,62] Clitocybe caespitosa Peck [NR.60] Clitocybe candicans (Pers.: Fr.) P. Kumm. [NR,67] Clitocybe candida Bres. [NR,63] Clitocybe cartilaginea (Bull.: Fr.) Bres. [NR,60] Clitocybe gibba (Pers.: Fr.) P. Kumm. [NR,621 Clitocybe maxima (Gaertn. & G. Mey.: Fr.) P. Kumm. [NR,67] Clitocybe mutabilis H.E. Bigelow [NR,62] Clitocybe odora (Bull.: Fr.) P. Kumm. [NR,62] Clitocybe paropsis (Fr.) Sacc. [4] Clitocybe sinopica (Fr.) P. Kumm. [NR,67] Clitocybula familia (Peck) Singer [NR,62] Clitocybula lacerata (Lasch) Singer [NR,60] Conocybe albipes Hauskn. [NR,65] Conocybe tenera (Schaeff.: Fr.) Fayod [NR,60,62] Coprinellus domesticus (Bolton) Vilgalys, Hopple & Jacq. Johnson [NR,60] Coprinellus micaceus (Bull.: Fr.) Vilgalys, Hopple & Jacq. Johnson [15,60] Coprinellus radians (Desm.) Vilgalys, Hopple & Jacq. Johnson [NR,62] Coprinopsis atramentaria (Bull.) Redhead, Vilgalys & Moncalvo [4,15,60,62] Coprinopsis papagoensis (Lindsey & Gilb.) Redhead, Vilgalys & Moncalvo [15,30,45,60] Coprinus calyptratus Peck [37] Coprinus comatus (O.F. Müll.) Gray [NR,62] Cortinarius cinnabarinus Fr. [NR,60,62] Cortinarius cinnamomeus (L.: Fr.) Fr. Cortinarius gentilis (Fr.) Fr. [NR,62] Cortinarius glaucopus (Schaeff.: Fr.) Fr. [NR,62] Cortinarius magnivelatus Dearn. ex Fogel Cortinarius multiformis (Fr.) Fr. [NR,62] Cortinarius phoeniceus var. occidentalis A.H. Sm. [NR,62] Cortinarius ponderosus A.H. Sm. [NR,62] Cortinarius purpureus (Bull.: Fr.) Bidaud, Moënne-Locc. & Reumaux [NR,62] Cortinarius saxamontanus Fogel [10,62] Cortinarius trivialis J.E. Lange [NR,65] Cortinarius violaceus (L.: Fr.) Gray [4] Crepidotus alabamensis Murrill [15,60]

2006

Crepidotus cesatii var. cesatii (Rabenh.) Entoloma abortivum (Berk. & M.A. Curtis) Sacc. [26] Donk [NR.60] Entoloma byssisedum (Pers.: Fr.) Donk Crepidotus cesatii var. subsphaerosporus (J.E. Lange) Senn-[15,60] Irlet [15] Entoloma griseum (Peck) Hesler [NR.62] Crepidotus coloradensis Hesler & A.H. Entoloma rhodopolium (Fr.) P. Kumm. Sm. [15,60] [NR,62] Crepidotus epibryus (Fr.) Quél. [NR.60] Entoloma sinuatum (Bull.: Fr.) P. Kumm. Crepidotus fulvotomentosus Peck [4] [NR,60,62] Crepidotus kauffmanii Hesler & A.H. Flammulina fennae Bas [NR,66] Sm. [15,60] Flammulina velutipes (Curtis: Fr.) Singer Crepidotus mollis var. cystidiosus [15,26,60,62] Hesler & A.H. Sm. [15,60] Floccularia albolanaripes (G.F. Atk.) Crepidotus mollis var. mollis (Schaeff.: Watling & S.P. Abraham [NR,62] Fr.) Staude [15,26,60] Floccularia pitkinensis (Mitchel & A.H. Crepidotus occidentalis Hesler & A.H. Sm.) Bon [NR,62] Sm. [15,60] Floccularia straminea var. americana Crepidotus pallidobrunneus Hesler & (Mitchel & A.H. Sm.) Bon [NR,62] A.H. Sm. [15,60] Floccularia straminea var. straminea Crepidotus subverrucisporus Pilát (Krombh.) Pouzar [4,62] Galerina marginata (Batsch: Fr.) Kühner [NR,60] Crepidotus versutus (Peck) Sacc. [15,26,60] [15,60] Gastrocybe lateritia Watling [NR,62] Cristinia helvetica (Pers.) Parmasto Gymnopilus bellulus (Peck) Murrill [NR,60] [15,21,60,61] Gymnopilus junonius (Fr.) P.D. Orton Cristinia sonorae Nakasone & Gilb. [15,60,62] Gymnopilus sapineus (Fr.) Maire [15,21,45,60,61] Crucibulum laeve (Huds.: Pers.) [4,14,15,26,60,62] Gymnopus dryophilus Murrill [4,60,62] Kambly [NR,62] Cyathus olla (Batsch) Pers. [NR,61,62] Gymnopus impudicus (Fr.) Antonín, Halling Cyathus stercoreus (Schwein.) De Toni & Noordel. [4] [NR,61,62] Gyrophragmium decipiens (Peck) Lloyd Cyathus striatus (Huds.: Pers.) Willd. [NR,62] [NR,67] Hebeloma crustuliniforme (Bull.: Fr.) Quél. Cyphellopsis anomala (Pers.: Fr.) Donk [NR.62] [17,15,26,61] Hebeloma insigne A.H. Sm., V.S. Evenson Cyptotrama asprata (Berk.) Redhead & & Mitchel [NR,67] Ginns [14,15,26,60,61] Hebeloma sinapizans (Fr.) Sacc. [NR,62] Cystoderma amianthinum (Scop.: Fr.) Henningsomyces candidus (Pers.: Fr.) Fayod [NR,62] Kuntze [15,17,19,26,61] Cystoderma cinnabarinum (Alb. & Hohenbuehelia angustata (Berk.) Singer Schwein.: Fr.) Fayod [4,60,62] [15,60] Cystoderma fallax A.H. Sm. & Singer Hohenbuehelia atrocoerulea (Fr.: Fr.) [NR,62] Singer [NR,62] Cystoderma granulosum (Batsch: Fr.) Hohenbuehelia grisea (Peck) Singer [15,60] Favod [NR,67] Hohenbuehelia mastrucata (Fr.: Fr.) Singer Disciseda candida (Schwein.) Lloyd [15.60] [NR,2,63,65] Hohenbuehelia nigra (Schwein.) Singer Disciseda cervina (Berk.) Hollós [15,60] [NR,2,62,65] *Hohenbuehelia petalodes* (Bull.: Fr.) Disciseda hyalothrix (Cooke & Massee) Schulzer [15,26,60,61] Hollós [NR,2,60] Holocotylon brandegeeanum Lloyd Disciseda verrucosa G. Cunn. [NR.2.60.61.65] [NR,2,60,62,65] Hygrocybe conica (Scop.: Fr.) P. Kumm. Endoptychum arizonicum (Shear & [NR,62] Griffiths) Singer & A.H. Sm. [49,61,62]

Hygrocybe persistens (Britzelm.) Singer Inocybe rimosa (Bull.: Fr.) P. Kumm. [NR,62] [47,60] Hygrocybe punicea (Fr.) P. Kumm. Inocybe sororia Kauffman [NR,62] [NR,60] Inocybe subtomentosa Peck [4] Hygrocybe turunda (Fr.: Fr.) P. Karst. Inocybe trechispora (Berk.) P. Karst. [NR,60] [NR.60] Hygrocybe virginea (Wulfen: Fr.) P.D. Laccaria amethysteo-occidentalis G.M. Orton & Watling [4] Muell. [NR,62] Hygrophoropsis aurantiaca (Wulfen: Laccaria amethystina Cooke [NR,62] Fr.) Maire [15] Laccaria laccata (Scop.: Fr.) Fr. [NR,60,62] Hygrophorus agathosmus (Fr.) Fr. Lachnella alboviolascens (Alb. & Schwein.: [NR,60] Fr.) Fr. [15,22,26,45] Lepiota boudieri Bres. [NR,60] Hygrophorus aurantiacus Henn. Lepiota clypeolaria (Bull.: Fr.) Quél. [NR,62] INR.60.621 Hygrophorus caeruleus O.K. Mill. [NR,67] Lepiota cristata (Bolton: Fr.) P. Kumm. Hygrophorus calophyllus P. Karst. [NR,62] [NR,62] Lepiota magnispora Murrill [NR,62] Hygrophorus chrysodon (Batsch: Fr.) Lepista densifolia (J. Favre) Singer & Fr. [NR,60,62,65] Clémençon [NR,67] Hygrophorus eburneus (Bull.: Fr.) Fr. Lepista irina (Fr.) H.E. Bigelow [NR,60] [NR,62] Lepista nuda (Bull.: Fr.) Cooke [NR,62] Hygrophorus erubescens (Fr.) Fr. Leucoagaricus leucothites (Vittad.) M.M. [NR,60,62] Moser ex Bon [NR,60,62] Hygrophorus gliocyclus Fr. [NR.62] Leucocoprinus birnbaumii (Corda) Singer Hygrophorus hypothejus (Fr.) Fr. [4] [NR,60,62] Hygrophorus niveicolor (Murrill) A.H. Leucocoprinus cepistipes (Sowerby: Fr.) Sm. & Hesler [NR,62] Pat. [NR,60] Hygrophorus psittacinus (Schaeff.) Fr. Leucopaxillus albissimus var. albissimus (Peck) Singer [4,62] **INR.621** Hygrophorus pudorinus (Fr.) Fr. Leucopaxillus albissimus var. barbarus [NR,60,62] (Maire) Singer & A.H. Sm. [NR,60] Hygrophorus purpurascens (Alb. & Leucopaxillus albissimus var. piceinus Schwein.: Fr.) Fr. [NR,62] (Peck) Singer & A.H. Sm. [NR,62] Hygrophorus russula (Schaeff.: Fr.) Leucopaxillus gentianeus (Quél.) Kotl. Kauffman [NR.60] INR.60.61.621 Hygrophorus sordidus Peck [NR,62] Leucopaxillus paradoxus (Costantin & L.M. Hygrophorus speciosus Peck Dufour) Boursier [NR,62] [NR.62.65] Limacella furnacea (Letell.) E.J. Gilbert Hygrophorus subalpinus A.H. Sm. [NR,60] Limacella glischra (Morgan) Earle [NR,62] [NR,67] Hygrophorus subfusoideus Largent Limacella illinita (Fr.: Fr.) Maire [NR,62] Lycoperdon lividum Pers. [NR,2,61] [NR,62] Hypholoma capnoides (Fr.: Fr.) P. Lycoperdon marginatum Vittad. Kumm. [15,21,60,62] [2,5,60,61,62,63,65] *Hypholoma fasciculare* (Huds.: Fr.) Lycoperdon molle Pers. [NR,2,60,61,62,63] Ouél. [15,26,60,62] Lycoperdon perlatum Pers.: Pers. Hypsizygus tessulatus (Bull.: Fr.) Singer [2,5,60,61,62,63,65] [15,60,62] Lycoperdon pulcherrimum Berk. & M.A. *Inocybe decipientoides* Peck [NR,60] Curtis [2,5,61,62,65] Inocybe geophylla var. geophylla Lycoperdon pyriforme Schaeff.: Pers. (Sowerby) P. Kumm. [NR,62] [2,5,61,62,63,65] Inocybe geophylla var. lilacina Gillet Lycoperdon rimulatum Peck [NR.62] [NR,2,60,61,62,65] Lycoperdon umbrinum Pers. [NR,2,65] Inocybe lanuginosa (Bull.: Fr.) P. Kumm. [NR,60,62] Lyophyllum decastes (Fr.: Fr.) Singer [4,62]

Marasmius inaquosi Desjardin [7] Marasmius plicatulus Peck [NR,62] Marasmius rotula (Scop.: Fr.) Fr. [26,60] Marasmius siccus (Schwein.) Fr. [19,21] Megacollybia platyphylla (Pers.: Fr.) Kotl. & Pouzar [14,15,26,60,62] Melanoleuca cognata (Fr.) Konrad & Maubl. [NR,60] Melanoleuca grammopodia (Bull.: Fr.) Murrill [NR,67] Montagnea arenaria (DC.) Zeller [NR,61,62] Mycena acicula (Schaeff.) P. Kumm. [NR,62] Mycena alcalina (Fr.) P. Kumm. [NR,62] Mycena galericulata (Scop.: Fr.) Gray [NR,60] Mycena maculata P. Karst. [NR,60] Mycena murina Murrill [NR,62] Mycena pura (Pers.: Fr.) P. Kumm. [NR,60,62] Mycenastrum corium (Guers.) Desv. [NR,2,60,61,62] Nidularia griseolazulina Lindsey & Gilb. [30,61] Omphalotus olearius (DC.: Fr.) Singer [15,21,60,62] Panaeolus antillarum (Fr.) Dennis [NR,60] Panaeolus papilionaceus (Bull.: Fr.) Quél. [4] Panaeolus semiovatus (Sowerby: Fr.) S. Lundell & Nannf. [NR.60] Phellorinia inquinans Berk. [35] Pholiota adiposa (Batsch: Fr.) P. Kumm. [15] Pholiota albocrenulata (Peck) Sacc. [15,60,62] Pholiota alnicola (Fr.: Fr.) Singer [4,15,26,60] Pholiota aurivella (Batsch: Fr.) Fr. [15,26,60,62] Pholiota bakerensis A.H. Sm. & Hesler [14,15,26,60] Pholiota decorata (Murrill) A.H. Sm. & Hesler [14,15,26,60]

Pholiota flavida (Schaeff.: Fr.) Singer

Pholiota highlandensis (Peck) A.H. Sm.

Pholiota limonella (Peck) Sacc. [15,60]

Pholiota lubrica (Pers.: Fr.) Singer [4]

[15,60]

& Hesler [15,60]

Pholiota populnea (Pers.: Fr.) Kuyper & Tiall.-Beuk. [NR.62] Pholiota spumosa (Fr.: Fr.) Singer [15,26] Pholiota squarrosa (Weigel: Fr.) P. Kumm. [4,15,26,60,62] Pholiota squarrosoadiposa J.E. Lange [26,60] Pholiota squarrosoides (Peck) Sacc. [15,26,60,62] Phyllotopsis nidulans (Pers.: Fr.) Singer [4,15,26,60,62] Pleurotus cystidiosus O.K. Mill. [NR,61] Pleurotus dryinus (Pers.: Fr.) P. Kumm. [26,60] Pleurotus ostreatus (Jacq.: Fr.) P. Kumm. [4,15,21,60,61,62] Pleurotus pulmonarius (Fr.: Fr.) Quél. [15,60] Pleurotus sapidus (Schulzer) Sacc. [26,60] Pleurotus subareolatus Peck [21,60] Pluteus atromarginatus (Konrad) Kühner [NR,62] Pluteus cervinus P. Kumm.: Fr. [14,15,26,60,62] Pluteus granularis Peck [NR,60] Pluteus longistriatus Peck [15,26,60] Pluteus pellitus (Pers.: Fr.) P. Kumm. [NR,65] Pluteus romellii (Britzelm.) Lapl. [NR,62] Podaxis argentinus Speg. [43] Podaxis longii McKnight [43] Podaxis pistillaris (L.: Pers.) Fr. [44,62] Psathyrella ammophila (Durieu & Lév.) P.D. Orton [NR,62] Psathyrella candolleana (Fr.: Fr.) Maire [15,60,62] Psathyrella circellatipes Benoist [NR,62] Psathyrella sarcocephala (Fr.: Fr.) Singer [NR,60] Psathyrella spadicea (Schaeff.: Fr.) Singer [15,21,60] Pseudoclitocybe cyathiformis (Bull.: Fr.) Singer [NR,60] Psilocybe coprophila (Bull.: Fr.) P. Kumm. [NR,60] Resupinatus applicatus (Batsch: Fr.) Gray [14.15.26.45.60] Rhodocollybia maculata (Alb. & Schwein.: Fr.) Singer [NR,65] Schizophyllum commune Fr.: Fr. [4,15,26,45,60,62] Schizostoma laceratum (Ehrenb.) Lév. [38,61] Sedecula pulvinata Zeller [13,52] Simocybe haustellaris (Fr.) Watling [26,60]

Stigmatolemma fimbriatum (Pers.) Tulostoma herteri Lowag & Swoboda Pouzar [NR,61] [NR,61] Stigmatolemma poriiforme (Pers.: Fr.) Tulostoma involucratum Long [34,59,61] W.B. Cooke [15,17,26,28,61] *Tulostoma leiosporum* Fr. [NR,61] Strobilurus conigenoides (Ellis) Singer *Tulostoma macrocephalum* Long [NR,62] [NR.60] *Tulostoma meristostoma* Long [59,62] *Stropharia aeruginosa* (Curtis: Fr.) Tulostoma mohavei Lloyd [59] Ouél. [NR,67] Tulostoma obscurum J.E. Wright [59] Stropharia coronilla (Bull.: Fr.) Fr. *Tulostoma opacum* Long [34,59,61,62] [NR,62] Tulostoma poculatum V.S. White [36,61,62] Stropharia kauffmanii A.H. Sm. Tulostoma pulchellum var. subfuscum (V.S. White) J.E. Wright, G. Moreno & Altés [61] [NR,62] Stropharia riparia A.H. Sm. [NR,62] Tulostoma purpusii Henn. [59,61] Stropharia semiglobata (Batsch: Fr.) Tulostoma semisulcatum Peck [59] Quél. [4,60] Tulostoma simulans Lloyd [59] Tulostoma striatum G. Cunn. [59,61] Stropharia squamosa (Pers.: Fr.) Quél. [NR,62] Tulostoma utahense J.E. Wright [59,61] Tricholoma caligatum (Viv.) Ricken *Tulostoma verrucosum* Morgan [NR,62] [NR,62] Tulostoma volvulatum f. elatum Pat. [59] Tricholoma flavovirens (Pers.: Fr.) S. Tulostoma volvulatum f. volvulatum I.G. Lundell [NR,60,61,62,63] Borshch. [NR,62] Tricholoma focale (Fr.) Ricken Tulostoma vulgare Long & S. Ahmad [NR,61,62] [59,61] Tricholoma imbricatum (Fr.: Fr.) P. *Tulostoma xerophilum* Long [36,59,61,62] Kumm. [NR.60] Vascellum intermedium A.H. Sm. [NR,2,65] Tricholoma leucophyllum Ovrebo & Vascellum lloydianum A.H. Sm. [NR,2,65] *Vascellum texense* A.H. Sm. [2,50,60,61] Tylutki [NR,67] Tricholoma ponderosum (Peck) Singer Volvaria earlei (Murrill) Sacc. & Trotter [NR,60] [NR,60] Tricholoma portentosum (Fr.) Quél. Volvariella bombycina (Schaeff.: Fr.) Singer [NR,67] [15,26,60] Tricholoma saponaceum (Fr.) P. Volvariella pusilla (Pers.: Fr.) Singer Kumm. [NR,60,61,62,63] [NR,60,62] Tricholoma terreum (Schaeff.: Fr.) Xeromphalina campanella (Batsch: Fr.) Maire [4,14,15,26,60,62] Quél. [NR,62] Tricholomopsis bella A.H. Sm. Xeromphalina cauticinalis (With.: Fr.) [15,26,60] Kühner & Maire [15,60] Tricholomopsis decora (Fr.) Singer Xerula radicata (Relhan: Fr.) Dörfelt [NR.60] [4.62] Tricholomopsis rutilans (Schaeff.: Fr.) Xerulina chrysopepla (Berk. & M.A. Curtis) Singer [15,26,60,62] Singer [NR,62] Tubaria pellucida (Bull.: Fr.) Fr. [NR,62] Auriculariales Tulostoma albicans V.S. White [59,61] Auricularia auricula-judae (Fr.) Quél. Tulostoma americanum Lloyd [59] [15,26,61,62] Tulostoma brumale Berk. [NR,61] Tulostoma cretaceum Long [NR,62] **Boletales** Tulostoma excentricum Long [NR,61] Alpova diplophloeus (Zeller & C.W. Dodge) Tulostoma fibrillosum V.S. White Trappe & A.H. Sm. [NR,64] [NR,61] Astraeus hygrometricus (Pers.: Fr.) Morgan Tulostoma fimbriatum var. campestre [2,42,60,61,62,64,65] (Morgan) G. Moreno [59,61,62] Boletellus russellii (Frost) E.-J. Gilbert Tulostoma fimbriatum var. egranulosum [NR,60,62] (Lloyd) J.E. Wright [59,61] Boletus barrowsii Thiers & A.H. Sm.

[56,60,62]

Tulostoma floridanum Lloyd [NR,61]

Tulostoma fusipes Har. & Pat. [59,61]

Boletus chromapes Frost [4,60] Boletus chrysenteron Bull. [NR,60,62] Boletus edulis Bull.: Fr. [4.60.62.63] Boletus erythropus Krombh. [NR,60,62] Boletus griseus Frost [NR,63] Boletus haematinus Halling [NR,63] Boletus luridus Schaeff.: Fr. [NR,60] Boletus rubellus Krombh. [NR,62] Boletus satanas Lenz [NR,60] Boletus truncatus (Singer, Snell & E.A. Dick) Pouzar [NR,62] Brauniellula albipes (Zeller) A.H. Sm. & Singer [11,13,55] Brauniellula crassitunicata Pacioni & Fogel [NR,62] Brauniellula nancyae A.H. Sm. & Singer [52] Chroogomphus pseudovinicolor O.K. Mill. [NR,62] Chroogomphus rutilus (Schaeff.: Fr.) O.K. Mill. [NR,62] Chroogomphus vinicolor (Peck) O.K. Mill. [NR,62] Coniophora arida (Fr.) P. Karst. [14,15,17,26,61] Coniophora eremophila Lindsey & Gilb. [15,19,21,22,30,61] Coniophora fusispora (Cooke & Ellis) Cooke [15] Coniophora olivacea (Fr.) P. Karst. [14,15,17,26,61] Coniophora puteana (Schumach.: Fr.) P. Karst. [14,15,17,26,61] Coniophora submembranacea (Berk. & Broome) Cooke [26] Gomphidius glutinosus (Schaeff.: Fr.) Fr. [NR,60,62] Gomphidius roseus (Fr.) Fr. [NR,62] Gomphidius subroseus Kauffman [NR,62] Gyroporus castaneus (Bull.: Fr.) Quél. [NR,62] Hygrophoropsis aurantiaca (Wulfen: Fr.) Maire [4,60,62] Hygrophoropsis morganii (Peck) H.E. Bigelow [NR,62] Hymenogaster brunnescens A.H. Sm. [52,62] Hymenogaster parksii Zeller & C.W. Dodge [NR,62] Hymenogaster subalpinus A.H. Sm. [13,52,62] Hymenogaster sublilacinus A.H. Sm.

[55,62]

Jaapia ochroleuca (Bres.) Nannf. & J. Erikss. [15] Leccinum arctostaphyli V.L. Wells & Kempton [NR,62] Leccinum aurantiacum (Bull.) Gray [NR,60,62] Leccinum insigne A.H. Sm., Thiers & Watling [NR,62] Leccinum montanum Thiers [NR,62] Leccinum scabrum (Bull.) Gray [4] Leccinum subalpinum Thiers [56] Leucogaster rubescens Zeller & C.W. Dodge [13,52] Leucogyrophana arizonica Ginns [15] Leucogyrophana mollusca (Fr.: Fr.) Pouzar [14,15,17,26,61] Leucogyrophana olivascens (Berk. & M.A. Curtis) Ginns & Weresub [14,15,17,26] Leucogyrophana pinastri (Fr.: Fr.) Ginns & Weresub [14,15,26,61] Leucogyrophana pseudomollusca (Parmasto) Parmasto [14,17,26,61] Leucophleps spinispora Fogel [13,62] Marthanella nidulosa States & Fogel [54,62] Melanogaster ambiguus (Vittad.) Tul. & C. Tul. [13,52] Melanogaster euryspermus (Zeller & C.W. Dodge) Zeller [11,13,52,55] Melanogaster tuberiformis Corda [11,13,52,55] Paxillus involutus (Batsch: Fr.) Fr. [NR,62] Phylloporus rhodoxanthus (Schwein.) Bres. [NR,60,62] Pisolithus tinctorius (Pers.) Coker & Couch [NR.61.62] Pseudomerulius aureus (Fr.: Fr.) Jülich [15,61] Rhizopogon colossus A.H. Sm. [NR,64] Rhizopogon evadens A.H. Sm. [13,52,55] Rhizopogon nitens A.H. Sm. [NR,62] Rhizopogon ochraceorubens A.H. Sm. [13,52,55] Rhizopogon pinyonensis K.A. Harrison & A.H. Sm. [13,52] Rhizopogon subcaerulescens A.H. Sm. [13.52.55] Rhizopogon subcroceus A.H. Sm. [13,52] Rhizopogon vinicolor A.H. Sm. [NR,64] Scleroderma areolatum Ehrenb. [NR,62] Scleroderma cepa Pers. [NR,62] Scleroderma citrinum Pers. [NR,62] Scleroderma flavidum Ellis & Everh. [NR,61] Scleroderma hypogaeum Zeller [NR,62]

Sclerogaster xerophilus Fogel
[11,13,52,55,62]
Serpula himantioides (Fr.) P. Karst.
[14,15,17,26,61]
Serpula lacrymans (Wulfen: Fr.) J.
Schröt. [NR,61,62]
Strobilomyces strobilaceus (Scop.: Fr.)
Berk. [NR,60,62,63]
Suillus americanus (Peck) Snell
[NR,60,62]
Suillus brevipes (Peck) Kuntze [NR,60]
Suillus caerulescens A.H. Sm. & Thiers
[NR,62]
Suillus fuscotomentosus Thiers & A.H.
Sm. [NR,62]
Suillus granulatus (L.: Fr.) Snell
[4,60,62]
Suillus kaibabensis Thiers [56]
Suillus lakei (Murrill) A.H. Sm. &
Thiers [NR,60,62]
Suillus occidentalis Thiers [56,62]
Suillus sibiricus (Singer) Singer
[NR,62]
Suillus wasatchicus Thiers [46,56,62]
<i>Tapinella atrotomentosa</i> (Batsch: Fr.)
Šutara [NR,60,62]
Tapinella panuoides (Batsch: Fr.) EJ.
Gilbert [14,15,60,62]
Truncocolumella citrina Zeller
[11,13,62]

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Cantharellales
    Botryobasidium ansosum (H. S. Jacks.
    & D.P. Rogers) Parmasto
   [14,15,17,26,61]
   Botryobasidium botryosum (Bres.) J.
    Erikss. [15]
    Botryobasidium candicans J. Erikss.
    [15,26]
    Botryobasidium laeve (J. Erikss.)
    Parmasto [17,61]
    Botryobasidium medium J. Erikss.
    [14,15,26]
    Botryobasidium pruinatum (Bres.) J.
   Erikss. [14,15,26]
    Botryobasidium subcoronatum (Höhn.
    & Litsch.) Donk [14,15,17,26,61]
    Botryohypochnus isabellinus (Fr.) J.
    Erikss. [14,15,17,26,61]
    Botryohypochnus verrucisporus Burds.
    & Gilb. [3]
    Cantharellus cibarius Fr.: Fr.
    [NR,60,62]
    Clavulina coralloides (L.: Fr.) J. Schröt.
    [NR,62]
    Hydnum repandum L.: Fr. [NR,60,62]
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# **Dacrymycetales**

Calocera viscosa (Pers.) Fr. [NR,67] Dacrymyces capitatus Schwein. [15,26] Dacrymyces chrysospermus Berk. & M.A. Curtis [15] Dacrymyces dictyosporus G.W. Martin [14,15,26] Dacrymyces minor Peck [15,19,26] Dacrymyces palmatus (Schwein.) Burt. [14,26,61,62] Dacrymyces punctiformis Neuhoff. [14,26] Dacrymyces stillatus Nees: Fr. [15,26,61] Dacrymyces tortus Fr. [15] Dacryopinax spathularia (Schwein.: Fr.) G.W. Martin [15,21,26] Ditiola radicata (Alb. & Schwein.: Fr.) Fr. [15,26,61] Guepiniopsis alpina (Tracy & Earle) Brasf. [14,15,26,61,62]

Calocera cornea (Batsch: Fr.) Fr. [15,26]

## **Exobasidiales**

Exobasidium vaccinii (Fuckel) Woronin [NR,61]

# Hymenochaetales

Coltricia cinnamomea (Jacq.) Murrill [17,27,62,66] Coltricia perennis (L.: Fr.) Murrill [27,61,62] Hymenochaete cinnamomea (Pers.) Bres. [15,17,19,23,26,61] Hymenochaete corrugata (Fr.: Fr.) Lév. [15,17,26] Hymenochaete leonina Berk. & M.A. Curtis [15,26]Hymenochaete rubiginosa (Dicks.: Fr.) Lév. [15,19,26,61] Hymenochaete spreta Peck [15,26] Hymenochaete tenuis Peck [15,26,61] Hyphodontia abieticola (Bourdot & Galzin) J. Erikss. [14,15,17,26,61] Hyphodontia altaica Parmasto [15,21] Hyphodontia alutacea (Fr.: Fr.) J. Erikss. [14,15,17,26,61] Hyphodontia alutaria (Burt) J. Erikss. [14,17,26] *Hyphodontia apacheriensis* (Gilb. & Canf.) Hjortstam & Ryvarden [15,19,20,22,26,28,30,61] Hyphodontia arguta (Fr.: Fr.) J. Erikss. [15,17,22,26,61] Hyphodontia aspera (Fr.) J. Erikss. [17,26,61]

Inonotus patouillardii (Rick) Imazeki Hyphodontia barba-jovis (Bull.) J. Erikss. [14,17,26] [15,17,26,27] Hyphodontia breviseta (P. Karst.) J. Inonotus rheades (Pers.) Bondartsev & Erikss. [14,15,17,26,61] Singer [NR,61] Hyphodontia crustosa (Pers.: Fr.) J. Inonotus rickii (Pat.) D.A. Reid [27] Erikss. [15,17,21,26] *Inonotus texanus* Murrill [15,19,26,27,61] Hyphodontia detritica (Bourdot & Inonotus triqueter (Alb. & Schwein.) Galzin) J. Erikss. [32] Teixeira [15] Hyphodontia floccosa (Bourdot & Onnia circinata (Fr.) P. Karst. [14,26,27] Galzin) J. Erikss. [14,15,17,26,61] Onnia tomentosa (Fr.: Fr.) P. Karst. Hyphodontia hastata (Litsch.) J. Erikss. [14,15,26,27,61] Oxyporus corticola (Fr.) Ryvarden [14,15,17,26] Hyphodontia latitans (Bourdot & [14,15,17,26,28,61] Galzin) Ginns & M.N.L. Lefebvre Oxyporus latemarginatus (Durieu & Mont.) Donk [15,17,19,26,28,61] [15,26,27,61] Hyphodontia nespori (Bres.) J. Erikss. Oxyporus populinus (Schumach.: Fr.) Donk & Hjortstam [15] [15] Hyphodontia pallidula (Bres.) J. Erikss. Oxyporus similis (Bres.) Ryvarden [15,28] [14,15,17,26,61] Phellinus arctostaphyli (Long) Niemelä Hyphodontia papillosa (Fr.: Fr.) J. [15,26,28,61] Erikss. [14,15,26,61] Phellinus badius (Berk.) G. Cunn. Hyphodontia pilaecystidiata (S. [15,19,26,28,61] Lundell) J. Erikss. [15] Phellinus chrysoloma (Fr.) Donk [15,28] Hyphodontia pruni (Lasch) Svrček Phellinus contiguus (Pers.: Fr.) Pat. [15,28] [15,19,26,61] Phellinus coronadensis Rizzo, Gieser & Hyphodontia quercina (Pers.: Fr.) J. Burds. [48] Phellinus everhartii (Ellis & Galloway) Pilát Erikss. [15,19,26] Hyphodontia radula (Pers.: Fr.) Langer [15,26,28,61] Phellinus ferrugineofuscus (P. Karst.) & Vesterh. [26,61] Hyphodontia rimosissima (Peck) Gilb. Bourdot & Galzin [15,26,28] [15,21,26] Phellinus ferruginosus (Schrad.: Fr.) Pat. Hyphodontia sambuci (Pers.: Fr.) J. [15,17,19,26,28,61] Erikss. [15,17,19,26,45,61] Phellinus gilvus (Schwein.: Fr.) Pat. Hyphodontia spathulata (Schrad.: Fr.) [15,19,26,28,61] Parmasto [15,17,22,26,61] Phellinus hartigii (Allesch. & Schnabl.) Pat. Hyphodontia stipata (Fr.) Gilb. [26] [28] Hyphodontia subalutacea (P. Karst.) J. Phellinus igniarius (L.: Fr.) Quél. [28,61] Erikss. [14,15,17,26,61] Phellinus nigrolimitatus (Romell) Bourdot Inonotus andersonii (Ellis & Everh.) & Galzin [15,17,26,28,61] Černý [15,26,27,61] Phellinus pini (Brot.: Fr.) Bondartsev & Inonotus arizonicus Gilb. [15,26,27,61] Singer [14,15,26,28,61] Inonotus cuticularis (Bull.: Fr.) P. Phellinus punctatus (Fr.) Pilát [28] Karst. [15,26,27,61] Phellinus rimosus (Berk.) Pilát [NR,61] Inonotus dryadeus (Pers.: Fr.) Murrill Phellinus robiniae (Murrill) A. Ames [15,21,27] [15,26,28,61] Inonotus dryophilus (Berk.) Murrill Phellinus robustus (P. Karst.) Bourdot & [15,26,27,61] Galzin [15,22,26,28,30,46,61] Inonotus farlowii (Lloyd) Gilb. [27,61] Phellinus sonorae Gilb. [15,28] Phellinus torulosus (Pers.: Fr.) Bourdot & Inonotus glomeratus (Peck) Murrill [NR,61] Galzin [14,15,26,28,61] Inonotus hispidus (Bull.: Fr.) P. Karst. Phellinus tremulae (Bondartsev) Bondartsev & Borissov [15,26,28] [15,26,27,62] Inonotus jamaicensis Murrill [15,28] Phellinus viticola (Schwein.: Fr.) Donk Inonotus munzii (Lloyd) Gilb. [15,26,28,61] Phellinus weirianus (Bres.) Gilb. [15,26,27,61] [15,26,28,61]

Phylloporia fruticum (Berk. & M.A. Curtis) Ryvarden [NR,61]
Phylloporia ribis (Schumach.: Fr.)
Ryvarden [28]
Schizopora flavipora (Berk. & M.A. Curtis ex Cooke) Ryvarden [15]
Schizopora paradoxa (Schrad.: Fr.)
Donk [17,61]

#### **Phallales**

Clavariadelphus lignicola R.H.

Petersen [NR,60,66]

Clavariadelphus ligula (Schaeff.: Fr.)

Donk [NR,61,62]

Clavariadelphus occidentalis Methven

[NR,60]

Clavariadelphus sachalinensis (S. Imai)

Corner [15,21,60]

Clavariadelphus truncatus (Quél.)

Donk [NR,60,62]

Dictyophora duplicata (Bosc) E. Fisch.

[NR,62]

Gautieria crispa E.L. Stewart & Trappe

[13,52]

Gautieria gautierioides (Lloyd) Zeller

& C.W. Dodge [13,52]

Geastrum arenarium Lloyd [2,42,61]

Geastrum campestre Morgan

[2,42,60,61,62]

Geastrum corollinum (Batsch) Hollós

[NR,2,65]

Geastrum coronatum Pers.

[2,42,60,62,65]

Geastrum elegans Vittad. [2,42,61,62]

Geastrum fimbriatum Fr.

[2,42,60,61,62]

Geastrum floriforme Vittad.

[2,42,60,61,65]

Geastrum fornicatum (Huds.) Hook.

[2,42,60,61]

Geastrum hieronymi Henn. [2,42,62]

Geastrum kotlabae V.J. Staněk

[2,42,61,65]

Geastrum lageniforme Vittad.

[NR,2,60]

Geastrum minimum Schwein.

[2,42,60,61,62,65]

Geastrum quadrifidum DC.: Pers.

[NR,2,60,61]

Geastrum rufescens Pers. [NR,2,62,65]

Geastrum saccatum Fr. [NR,2,62,65]

Geastrum schmidelii Vittad.

[2,42,61,65]

Geastrum smardae V.J. Staněk

[2,42,61,65]

Geastrum smithii Lloyd [2,42,61]

*Geastrum striatum* DC. [2,42,61,65]

Geastrum triplex Jungh. [2,42,60,61]

Geastrum xerophilum Long [NR,2,61]

Gomphus bonarii (Morse) Singer [NR,61]

Gomphus floccosus (Schwein.) Singer

[NR,60,62]

Gomphus kauffmanii (A.H. Sm.) Corner

[NR,62]

Hysterangium coriaceum R. Hesse

[11,13,55,62]

Hysterangium separabile Zeller [11,52,64]

Itajahya galericulata A. Møller

[39,41,60,61,65]

Kavinia alboviridis (Morgan) Gilb. &

Budington [15,17,26,61]

Kavinia himantia (Schwein.: Fr.) J. Erikss.

[14,15,17,26,61]

Mutinus caninus (Huds.: Pers.) Fr. [NR,62]

Myriostoma coliforme (Dicks.) Corda

[2,42,61]

Phallus hadriani Vent.: Pers. [41,61,62]

Ramaria apiculata (Fr.) Donk [4]

Ramaria aurea (Schaeff.: Fr.) Quél. [NR,60]

Ramaria botrytis (Pers.: Fr.) Ricken [NR,62]

Ramaria flava (Schaeff.:Fr.) Quél. [NR,66]

Ramaria flavobrunnescens (G.F. Atk.)

Corner [4,62]

Ramaria obtusissima (Peck) Corner [NR,60]

Ramaria pinicola (Burt) Corner [NR,66]

Ramaria stricta (Pers.: Fr.) Quél.

[NR,60,62]

Ramaria suecica (Fr.) Donk [NR,62]

Saprogaster pinyonensis Fogel & States [12]

Sphaerobolus stellatus Tode: Pers. [NR,62]

Trappea darkeri (Zeller) Castellano

[11.55.62]

*Trappea pinyonensis* States [13,53,62]

# **Polyporales**

Abortiporus biennis (Bull.) Singer [26,27]

Albatrellus confluens (Alb. & Schwein.)

Kotl. & Pouzar [17,27]

Albatrellus dispansus (Lloyd) Canf. & Gilb.

[27]

Albatrellus ellisii (Berk.) Pouzar [27,61]

Albatrellus ovinus (Schaeff.: Fr.) Kotl. &

Pouzar [27,62]

Albatrellus subrubescens (Murrill) Pouzar

[27]

Aleurodiscus amorphus Rabenh. [15,26,61]

Aleurodiscus bertii Lloyd [26]

Aleurodiscus canadensis Skolko [14,17,26]

Aleurodiscus cerussatus (Bres.) Höhn. &

Litsch. [17,22,26,61]

Aleurodiscus croceus Pat. [15,26]

Aleurodiscus diffissus (Sacc.) Burt [17,26]

Aleurodiscus disciformis (DC.: Fr.) Pat. [15,26]Aleurodiscus fennicus Laurila [26] Aleurodiscus lividocaeruleus (P. Karst.) P.A. Lemke [26,61] Aleurodiscus oakesii (Berk. & M.A. Curtis) Pat. [15,17,26,61] Aleurodiscus spiniger D.P. Rogers & P.A. Lemke [15,17,26,61] Aleurodiscus weirii Burt [26] Amphinema byssoides (Pers.: Fr.) J. Erikss. [15,17,26,61] Amylocorticium pedunculatum Hjortstam [NR,61] Amylocorticium subincarnatum (Peck) Pouzar [15,24,26] Amylocorticium subsulphureum (P. Karst.) Pouzar [14,15,17,24,26] Amylocystis lapponicus (Romell) Bondartsev & Singer [15,26,27] Anomoporia bombycina (Fr.) Pouzar [14,15,26,27,61] Antrodia albida (Fr.) Donk [15,22,26,27,61] Antrodia albobrunnea (Romell) Ryvarden [14,17,26,27,61] Antrodia carbonica (Overh.) Ryvarden & Gilb. [14,15,17,26,27] Antrodia crassa (P. Karst) Ryvarden [14,15,17,26,61] Antrodia ferox (Long & D.V. Baxter) Gilb. & Ryvarden [15,26,27] Antrodia gossypina (Speg.) Ryvarden Antrodia heteromorpha (Fr.: Fr.) Donk [15.19.22.26.27.61] Antrodia juniperina (Murrill) Niemelä & Ryvarden [15,22,26,27,61] Antrodia malicola (Berk. & M.A. Curtis) Donk [15,17,26,27] Antrodia odora (Peck ex Sacc.) Gilb. & Ryvarden [15,17,26,27,61] Antrodia oleracea (R.W. Davidson & Lombard) Ryvarden [26] Antrodia serialis (Fr.) Donk [14,15,26,27,61] Antrodia sinuosa (Fr.: Fr.) P. Karst. [15,22,26,27,61] Antrodia sitchensis (D.V. Baxter) Gilb. & Ryvarden [14,15,17,26,27,61] Antrodia sorida Ryvarden & Gilb. [15] Antrodia xantha (Fr.: Fr.) Ryvarden [15,26,27,61] Antrodiella romellii (Donk) Niemelä [14,15,26,27]

Antrodiella semisupina (Berk. & M.A. Curtis) Ryvarden [15] Athelia acrospora Jülich [21] Athelia arachnoidea (Berk.) Jülich [15,26] Athelia bombacina (Link) Pers. [15,21] Athelia coprophila (Wakef.) Jülich [15,19,21] Athelia decipiens (Höhn. & Litsch.) J. Erikss. [14,15,17,26,30,45,61] Athelia epiphylla Pers.: Fr. [15,17,26] Athelia fibulata M.P. Christ. [15,21] Athelia neuhoffii (Bres.) Donk [17,26] Athelia reticulata (Litsch.) Parmasto [21] Athelia teutoburgensis (Brinkmann) Jülich [26] Athelopsis galzinii (Bres.) Hjortstam [15,26] Athelopsis lunata (Romell ex Bourdot & Galzin) Parmasto [15,26] Athelopsis subinconspicua (Litsch.) Jülich [21] Bjerkandera adusta (Willd.: Fr.) P. Karst. [15,26,27,62] Byssocorticium neomexicanum Gilb. & Budington [15] Byssomerulius ambiguus (Berk.) Gilb. & Budington [17] Byssomerulius armeniacus (Bres.) Gilb. [14,17,26,61] Byssomerulius incarnatus (Schwein.) Gilb. [14,26,61] Byssoporia terrestris (DC.) Larsen & Zak [14,15,26,27,61] Candelabrochaete langloisii (Pat.) Boidin [14,15,17,26,61] Ceraceomyces fouquieriae (Nakasone & Gilb.) Nakasone, C.R. Bergman & Burds. [15] Ceraceomyces serpens (Tode: Fr.) Ginns [14,15,17,26,61] Ceraceomyces sublaevis (Bres.) Jülich [15] Ceraceomyces sulphurinus (P. Karst.) J. Erikss. & Ryvarden [14,17,26,61] Ceraceomyces tessulatus (Cooke) Jülich [14,15,17,26,61] Ceriporia alachuana (Murrill) Hallenb. [26,27] Ceriporia bresadolae (Bourdot & Galzin) Bondartsev & Singer [14,26] Ceriporia excelsa (S. Lundell) Parmasto [15,26,27,61] Ceriporia purpurea (Fr.) Donk [15,17,26,27,46,61] Ceriporia reticulata (Hoffm.) Domański [15,27] Ceriporia spissa (Schwein.: Fr.) Rajchenb. [15,26,27,61]

J. Schrot. [15,17,26,27]

Ceriporia tarda (Berk.) Ginns Datronia scutellata (Schwein.) Gilb. & [14,15,19,22,26,27,46,61] Ryvarden [15,26,27,61] Ceriporia viridans (Berk. & Broome) Datronia stereoides (Fr.: Fr.) Ryvarden Donk [15,27] [17,26,27,61] Ceriporia xylostromatoides (Berk.) Dendrothele acerina (Pers.: Fr.) P.A. Lemke Ryvarden [15,26,27,46,61] [15,26,61] Ceriporiopsis aneirina (Sommerf.: Fr.) Dendrothele dryina (Pers.) P.A. Lemke Domański [NR,61] [15,26] Ceriporiopsis carnegiae (D.V. Baxter) Dendrothele griseocana (Bres.) Bourdot & Gilb. & Ryvarden [15,26,27,30,61] Galzin [15,26,61] Ceriporiopsis rivulosa (Berk. & M.A. Dendrothele incrustans (P.A. Lemke) P.A. Curtis) Gilb. & Ryvarden [15,26,61] Lemke [15,22] Ceriporiopsis subvermispora (Pilát) Dendrothele mexicana (P.A. Lemke) P.A. Gilb. & Ryvarden [15,26,27,61] Lemke [15] Climacocystis borealis (Fr.) Kotl. & Dendrothele microspora (H.S. Jacks. & P.A. Pouzar [15,26,27,61] Lemke) P.A. Lemke [15,21] Climacodon pulcherrimus (Berk. & Dichomitus campestris (Quél.) Domański & M.A. Curtis) M.I. Nikol. Orlicz [15,26,27,61] [14,15,17,26,61] Dichomitus squalens (P. Karst.) D.A. Reid Conohypha terricola (Burt) Jülich [15] [14,15,26,27,61,62] Coriolopsis gallica (Fr.) Ryvarden Diplomitoporus crustulinus (Bres.) [15,19,26,27,62] Domański [15,17,26,27,61] Corticium canfieldii (M.J. Larsen & Diplomitoporus overholtsii (Pilát) Gilb. & Ryvarden [15,26,27,61] Gilb.) Boidin & Lang. [15,21] Corticium griseoeffusum (M.J. Larsen Diplomitoporus rimosus (Murrill) Gilb. & & Gilb.) Ginns & M.N.L. Lefebvre Ryvarden [15,22,26,27,61] [15,21]*Erythricium chaparralum* Burds. & Gilb. Corticium lombardiae (M.J. Larsen & [3,15]Gilb.) Boidin & Lang. [15,21] Erythricium laetum (P. Karst.) J. Erikss. & Corticium mississippiense (Lentz) M.J. Hjortstam [15,21] Larsen [15,21] Fibricium lapponicum J. Erikss. [15] Corticium radiosum (Fr.) Fr. [16,61] Fibricium rude (P. Karst.) Jülich Corticium roseocarneum (Schwein.) [14,15,17,26,61] Hjortstam [15,26] Fibroporia radiculosa (Peck) Parmasto Crustoderma corneum (Bourdot & [14,15,26,27,61] Galzin) Nakasone [14.15.26.61] Fibroporia vaillantii (DC.: Fr.) Parmasto Crustoderma dryinum (Berk. & M.A. [15,26,27,61] Curtis) Parmasto [14,15,17,26,61] Fibulomyces mutabilis (Bres.) Jülich [15] Crustoderma testatum (H.S. Jacks. & Fomes fasciatus (Sw.: Fr.) Cooke [15,26,27,61] Dearden) Nakasone [15] Cryptoporus volvatus (Peck) Shear Fomes meliae (Underw.) Murrill [21] [14,15,26,27,61] Fomitopsis cajanderi (P. Karst.) Kotl. & Cylindrobasidium corrugum (Burt) Pouzar [14,15,26,27,61,62] Fomitopsis palustris (Berk. & M.A. Curtis) Ginns [14,15,26,61] Gilb. & Ryvarden [15,17,26] Cylindrobasidium evolvens (Fr.: Fr.) Jülich [21,32,61] Fomitopsis pinicola (Sw.: Fr.) P. Karst. Cylindrobasidium laeve (Pers.: Fr.) [14,15,26,27,61] Chamuris [15] Fomitopsis rosea (Alb. & Schwein.: Fr.) P. Dacryobolus karstenii (Bres.) Oberw. & Karst. [15,17,26,27,61] Parmasto [14,15,26,61] Funalia trogii (Berk.) Bondartsev & Singer Dacryobolus sudans (Alb. & Schwein.) [15,26,28] Fr. [14,15,17,26,61] Ganoderma applanatum (Pers.) Pat. Daedalea berkeleyi Sacc. [NR,61] [15,26,27,61] Daedalea flavida Lév. [NR,61] Ganoderma colossus (Fr.) C.F. Baker Daedaleopsis confragosa (Bolton: Fr.) [NR,61]

Ganoderma lobatum (Schwein.) G.F. Atk. [15,26,27] Ganoderma lucidum (Curtis: Fr.) P. Karst. [15,19,26,27,61] Ganoderma oregonense Murrill [NR,61] Ganoderma tsugae Murrill [15,26,27,61] Gloeophyllum abietinum (Bull.: Fr.) P. Karst. [27] Gloeophyllum carbonarium (Berk. & M.A. Curtis) Ryvarden [14,15,26,27,61] Gloeophyllum mexicanum (Mont.) Ryvarden [27,61] Gloeophyllum odoratum (Wulfen: Fr.) Imazeki [14,15,26,27] Gloeophyllum protractum (Fr.) Imazeki [15,27]Gloeophyllum sepiarium (Wulfen: Fr.) P. Karst. [14,15,22,26,27,62] Gloeophyllum striatum (Sw.: Fr.) Murrill [15,27] Gloeophyllum trabeum (Pers.) Murrill [22,26,27,61] Gloeoporus dichrous (Fr.) Bres. [15,26,27,61] Gloeoporus pannocinctus (Romell) J. Erikss. [27] Hapalopilus nidulans (Fr.: Fr.) P. Karst. [14,15,26,27,61] Hapalopilus salmonicolor (Berk. & M.A. Curtis) Pouzar [14,15,17,26,27] Heliocybe sulcata (Berk.) Redhead & Ginns [15,19,22,26,30,45,60] Hirshioporus versatilis (Berk.) Imazeki [22,26] Hydnopolyporus fimbriatus (Fr.) D.A. Reid [15,26,28] Hyphoderma amoenum (Burt) Donk [15,17,19,26,61] Hyphoderma argillaceum (Bres.) Donk [14,15,17,26,61] Hyphoderma budingtonii Lindsey & Gilb. [15,21,32,61] Hyphoderma clavigerum (Bres.) Donk [15,26,30,61] Hyphoderma cremeoalbum (Höhn. & Litsch.) Jülich [15] Hyphoderma cristulatum (Fr.) Donk [21,26] Hyphoderma definitum (H.S. Jacks.) Donk [14,15,17,26] Hyphoderma deserticola Gilb. & Lindsey [15,21,22,61] Hyphoderma fouquieriae Nakasone &

Gilb. [21,45,61]

Hyphoderma guttuliferum (P. Karst.) Donk [15,17,26,61] Hyphoderma litschaueri (Burt) J. Erikss. & Å. Strid [15,21] Hyphoderma medioburiense (Burt) Donk [15,26] Hyphoderma obtusiforme J. Erikss. & Å. Strid [15.21] Hyphoderma obtusum J. Erikss. [15] Hyphoderma occidentale (D.P. Rogers) Boidin & Gilles [15,17,26] Hyphoderma pallidum (Bres.) Donk [14,15,17,22,26] Hyphoderma pilosum (Burt) Gilb. & Budington [14,15,17,26,61] Hyphoderma populneum (Peck) Donk [15,26,61] Hyphoderma praetermissum (P. Karst.) J. Erikss. & Å. Strid [15] Hyphoderma puberum (Fr.: Fr. ) Wallr. [15,26] Hyphoderma roseocremeum (Bres.) Donk [15,26] Hyphoderma setigerum (Fr.: Fr.) Donk [14,15,26] Hyphoderma sibiricum (Parmasto) J. Erikss. & Å. Strid [15,21] Hyphoderma tenue (Pat.) Donk [14,17,26] Hyphodermella corrugata (Fr.) J. Erikss. & Ryvarden [15] Hypochniciellum subillaqueatum (Litsch.) Hjortstam [14,15,17,26,61] Hypochnicium analogum (Bourdot & Galzin) J. Erikss. [15,17,26,61] *Hypochnicium bombycinum* (Sommerf.: Fr.) J. Erikss. [14,15,19,26,61] Hypochnicium eichleri (Bres. ex Sacc.) J. Erikss. & Ryvarden [15] Hypochnicium geogenium (Bres.) J. Erikss. [15,61] Hypochnicium lundellii (Bourdot) J. Erikss. [15,17,26] Hypochnicium prosopidis Burds. [15,19,21,26] Hypochnicium punctulatum (Cooke) J. Erikss. [14,15,17,26,61] Hypochnicium sphaerosporum (Höhn, & Litsch.) J. Erikss. [14,15,17,26,61] Intextomyces contiguus (P. Karst.) Erikss. & Ryvarden [NR,61] Ischnoderma resinosum (Schrad.: Fr.) P. Karst. [27] Jahnoporus hirtus (Quél.) Nuss [15,26,27] Junghuhnia collabens (Fr.) Ryvarden [14,15,26,27,61]

Neolentinus lepideus (Fr.: Fr.) Redhead & Junghuhnia lacera (P. Karst.) Niemelä & Kinnunen [15,27] Ginns [4,14,15,26,60] Junghuhnia luteoalba (P. Karst.) *Neolentinus ponderosus* (O.K. Mill.) Ryvarden [14,15,26,27,61] Redhead & Ginns [14,15,26,60,62] Junghuhnia nitida (Pers.: Fr.) Ryvarden Odonticium laxum (L.W. Mill.) Ryvarden [15,27][15] Laeticorticium roseum (Pers.: Fr.) Donk Oligoporus undosus (Peck) Gilb. & [15,17,26,61] Ryvarden [15,28] Laeticorticium simplicibasidium Osteina obducta (Berk.) Donk Lindsey & Gilb. [15,21,32,61] [15,17,26,28,61] Laetiporus conifericola Burds. & Banik Pachykytospora tuberculosa (DC.: Fr.) Kotl. & Pouzar [15,26,28] [15,17,26,27] Laetiporus gilbertsonii Burds. [17,61] Parmastomyces mollissimus (Maire) Pouzar Laetisaria agavei Burds. & Gilb. [3,15] [14,15,17,26,28,61] Paullicorticium pearsonii (Bourdot) J. Laricifomes officinalis (Vill.: Fr.) Kotl. & Pouzar [14,15,26,27,61] Erikss. [14,15,17] Lentinus levis (Berk. & M.A. Curtis) Perenniporia amylodextrinoidea Gilb. & Murrill [26,60] Ryvarden [15,28,61] Lentinus strigosus (Schwein.) Fr.: Fr. Perenniporia ellipsospora Ryvarden & Gilb. [15,26,45,60] [15] Lentinus tigrinus (Bull.: Fr.) Fr. Perenniporia fraxinea (Bull.: Fr.) Ryvarden [15,26,60,62] [NR,61] Lenzites betulina (L.: Fr.) Fr. [15] Perenniporia fraxinophila (Peck) Ryvarden Leptoporus mollis (Pers.: Fr.) Quél. [15,22,26,28,61] Perenniporia medulla-panis (Jacq.: Fr.) [14,15,26,27,61] Leptosporomyces fuscostratus (Burt) Donk [15,19,26,28,61] Perenniporia ohiensis (Berk.) Ryvarden Hjortstam [14,15,17,26,61] Leptosporomyces galzinii (Bourdot) [15,26,28,61] Perenniporia subacida (Peck) Donk Jülich [14,15,17,26,61] Leptosporomyces juniperinus Gilb. & [14,15,26,28,61] Lindsey [21,23,61] Perenniporia tenuis var. pulchella Leptosporomyces mundus (H.S. Jacks. (Schwein.) Gilb. & Ryvarden [15,26,28] & Dearden) Jülich [15,21] Perenniporia tenuis var. tenuis (Schwein.) Leptosporomyces septentionalis (J. Ryvarden [15,26,28,61] Erikss.) Krieglst. [15,26] Phaeolus schweinitzii (Fr.: Fr.) Pat. Lindtneria baboquivariensis (Gilb.) [14.15.26.28.61.62] Gilb. & Ryvarden [19,21,27] Phanerochaete affinis (Burt) Parmasto Lopharia crassa (Lév.) Boidin [15,21][15.17.19.26.45.61] Phanerochaete allantospora Burds. & Gilb. Meruliopsis albostramineus (Torrend) [15,19,45] Phanerochaete arizonica Burds. & Gilb. Jülich & Stalpers [15,61] Meruliopsis ambigua (Berk.) Ginns [15.19.45] [15,26]Phanerochaete avellanea (Bres.) J. Erikss. Meruliopsis corium (Pers.: Fr.) Ginns & Hjortstam [15,26] [14,15,17,19,26,61] Phanerochaete burtii (Romell ex Burt) Meruliopsis hirtella (Burt) Ginns Parmasto [15,17,61] [14,15,17,26,61] Phanerochaete cacaina (Bourdot & Galzin) Meruliopsis taxicola (Pers.: Fr.) Burds. & Gilb. [14,15] Bondartsev [15,17,26,27] Phanerochaete carnosa (Burt) Parmasto *Merulius aureus* Fr.: Fr. [14,26,61] [14,15,17,26,61] Mycoacia austro-occidentalis Canf. Phanerochaete chrysorhizon (Torr.) [15,19,21,45] Budington & Gilb. [19,26,30] Mycoacia fuscoatra (Fr.: Fr.) Donk [26] Phanerochaete filamentosa (Berk. & M.A. Mycoacia uda (Fr.: Fr.) Donk [15] Curtis) Burds. [26,61] Mycolindtneria leucobryophila (Henn.) Phanerochaete fuscomarginata (Burt) Gilb. Rauschert [15,21] [15,26,61]

68

Phanerochaete jose-ferreirae (D.A. Polyporus arcularius (Batsch) Fr. Reid) D.A. Reid [15] [15.19.22.26.28.45.61] Phanerochaete radicata (Henn.) Polyporus badius (Pers.) Schwein. Nakasone, C.R. Bergman & Burds. [15] [15,17,26,28,61,62] Phanerochaete sanguinea (Fr.: Fr.) Polyporus bresadolae Schulzer [NR.61] Pouzar [14,15,17,26,61] Polyporus decurrens Underw. [21] Phanerochaete sordida (P. Karst.) J. Polyporus destructor (Schrad.) Fr. [17] Erikss. & Ryvarden [14,15,17,21,26] Polyporus leptocephalus (Jacq.) Fr. Phanerochaete tuberculata (P. Karst.) [15,26,28,62] Parmasto [15,19,26,30,45] Polyporus melanopus (Pers.) Fr. [15,28] Phanerochaete velutina (DC.: Fr.) Polyporus squamosus (Huds.) Fr. Parmasto [14,15,17,26,61] [15,17,26,28,62] Polyporus tuberaster (Jacq.) Fr. [15,28] Phanerochaete xerophila Burds. [15] Polyporus varius (Pers.) Fr. [15,26,28] Phlebia acerina Peck [15] Phlebia albida H. Post [14,15,17,26,61] Poria byssina Romell [17,61] Phlebia cretacea (Romell ex Bourdot & Poria conferta Overh. [26] Galzin) J. Erikss. & Hjortstam [NR,61] Poria lindbladii (Berk.) Cooke Phlebia deflectens (P. Karst.) Ryvarden [14,15,26,27,61] [15,17,26] Poria oleagina Overh. [17,26] Phlebia firma J. Erikss. & Hjortstam Poria reticulata (Fr.) Cooke [26,61] Poria simanii (Pilát) Gilb. & J. Lowe Phlebia lilascens (Bourdot) J. Erikss. & [26,61] Hjortstam [15] Postia balsamea (Peck) Jülich Phlebia livida (Pers.: Fr.) Bres. [14,15,26,28,61] [14,15,17,26,61] Postia caesia (Schrad.: Fr.) P. Karst. Phlebia ludoviciana (Burt) Nakasone & [15,26,28,61] Postia floriformis (Quél.) Jülich [15,28] Burds. [15,61] Phlebia mellea Overh. [15,61] Postia fragilis (Fr.: Fr.) Jülich Phlebia ochraceofulva (Bourdot & [14,15,26,28,61] Postia guttulata (Peck) Jülich [28] Galzin) Donk [19,21] Phlebia phlebioides (H.S. Jacks. & Postia hibernica (Berk. & Broome) Jülich Dearden) Donk [17,26,61] [15,28] Phlebia radiata Fr. [15,17,26,61] Postia leucomallella (Murrill) Jülich [15,21] Phlebia rufa (Pers.: Fr.) M.P. Christ. Postia perdelicata (Murrill) M.J. Larsen & [17,26,61] Lombard [15,26,28] Phlebia subochracea (Bres.) J. Erikss. Postia placenta (Fr.) M.J. Larsen & & Ryvarden [15] Lombard [15,17,21,26,28] Phlebia subserialis (Bourdot & Galzin) Postia rancida (Bres.) M.J. Larsen & Donk [14,15,17,26,61] Lombard [15,26] Phlebiella pseudotsugae (Burt) K.H. Postia sericeomollis (Romell) Jülich [28] Larss. & Hjortstam [15] Postia stiptica (Pers.: Fr.) Jülich [15,28] Phlebiopsis gigantea (Fr.: Fr.) Jülich Postia tephroleuca (Fr.: Fr.) Jülich [14,15,17,26,61] [14,15,26,28,62] Piloderma bicolor (Peck) Jülich Pycnoporellus alboluteus (Ellis & Everh.) [14,17,26] Kotl. & Pouzar [14,15,17,26,28,62] Piloderma byssinum (P. Karst.) Jülich Pycnoporus cinnabarinus (Jacq.) Fr. [14,15,17,26,61] [14,15,26,28,45,61,62] Piloderma fallax (Lib.) Stalpers [15] Pycnoporus sanguineus (L.: Fr.) Murrill Piloderma reticulatum (Litsch.) Jülich [15,17,26,28,61] Pyrofomes demidoffii (Lév.) Kotl. & Pouzar Piloderma sphaerosporum Jülich [21] [15,22,26,28] Polyporus admirabilis Peck Radulodon aneirinus (Sommerf.) Spirin [15,21,28,61] [15,26,27] Polyporus alveolaris (DC.: Fr.) Radulodon casearius (Morgan) Ryvarden Bondartsev & Singer [15,17,26,28] [NR,61]

2006

Radulomyces confluens (Fr.: Fr.) M.P. Sphaerobasidium minutum (J. Erikss.) Christ. [15,17,26,61] Oberw. [14,15,17,26] Resinicium bicolor (Alb. & Schwein.: Spongipellis unicolor (Schwein.: Fr.) Murrill Fr.) Parmasto [14,15,17,26,61] [15,26,28,61,62] Resinicium chiricahuaense Gilb. & Steccherinum adustum (Schwein.) Z.S. Bi & Budington [14,15,26,61] G.Y. Zheng [NR,61] Resinicium furfuraceum (Bres.) Steccherinum ciliolatum (Berk. & M.A. Parmasto [14,15,17,26,61] Curtis) Gilb. & Budington [15,17,26,61] Rigidoporus crocatus (Pat.) Ryvarden Steccherinum fimbriatum (Pers.: Fr.) J. Erikss. [14,15,17,26,61] [15,17,26,28,61] Steccherinum laeticolor (Berk. & M.A. Rigidoporus sanguinolentus (Alb. & Schwein.: Fr.) Donk Curtis) Banker [15,17,26,61] [14,15,17,26,28,61] Steccherinum ochraceum (Pers.: Fr.) Gray Rigidoporus ulmarius (Sowerby: Fr.) [15,17,26,61] Imazeki [15,17,26,28,61] Steccherinum oreophilum Lindsey & Gilb. Rigidoporus undatus (Pers.: Fr.) Donk [15,21,31,61] [15] Steccherinum robustius (J. Erikss. & S. Rigidoporus vinctus (Berk.) Ryvarden Lundell) J. Erikss. [NR,61] Subulicystidium longisporum (Pat.) [21,61] Scopuloides hydnoides (Cooke & Parmasto [15,17,26,61] Massee) Hjortstam & Ryvarden [26] Theleporus ajovalliensis Gilb. & M. Scopuloides rimosa (Cooke) Jülich [15] Blackw. [16,28,61] Sistotrema brinkmannii (Bres.) J. Tomentellopsis pallidoaurantiaca (Gilb. & Erikss. [14,15,17,26,61] Budington) K.H. Larss. ex Ginns & M.N.L. Sistotrema confluens Pers.: Fr. Lefebvre [25] Tomentellopsis pusilla Hjortstam [15] [17,26,28] Sistotrema coroniferum (Höhn. & Trametes cervina (Schwein.: Fr.) Bres. Litsch.) Donk [15,26,61] [15.28] Sistotrema hirschii (Donk) Donk Trametes hirsuta (Wulfen: Fr.) Pilát [15,26][15,26,28,61] Trametes ochracea (Pers.) Gilb. & Sistotrema muscicola (Pers.) S. Lundell [15,26]Ryvarden [15,28] Sistotrema raduloides (P. Karst.) Donk Trametes suaveolens (L.) Fr. [17,26,28] [15,26] Trametes versicolor (L.: Fr.) Lloyd Sistotrema subtrigonospermum D.P. [15,26,28,62] Rogers [15,17,26,61] Trechispora candidissima (Schwein.) Sistotremastrum niveocremeum (Höhn. Bondartsev & Singer [26] & Litsch.) J. Erikss. [15] Trechispora cohaerens (Schwein.) Jülich & Sistotremastrum suecicum Litsch. ex J. Stalpers [15.26] Erikss. [15,21] Trechispora farinacea (Pers.: Fr.) Liberta Skeletocutis alutacea (J. Lowe) Jean [14,15,17,23,26,61] Keller [NR,61] Trechispora fastidiosa (Pers.: Fr.) Liberta Skeletocutis amorpha (Fr.: Fr.) Kotl. & [15,26] Pouzar [14,15,17,26,28,61] Trechispora microspora (P. Karst.) Liberta Skeletocutis lenis (P. Karst.) Niemelä [14,15,26,61] Trechispora mollusca (Pers.: Fr.) Liberta [15,26,27,61] Skeletocutis nivea (Jungh.) Jean Keller [15,28] [15,26,28] Trechispora praefocata (Bourdot & Galzin) Skeletocutis stellae (Pilát) Jean Keller Liberta [14,15,17,26] [15,17,26,28] Trechispora sphaerocystis Burds. & Gilb. Skeletocutis subincarnata (Peck) Jean Keller [14,15,17,19,26,28,61] Trechispora variseptata Burds. & Gilb. [3] Skeletocutis vulgaris (Fr.) Niemelä & Trichaptum abietinum (Dicks.: Fr.) Y.C. Dai [NR,61] Ryvarden [14,15,26,28,61,62] Sparassis crispa (Wulfen: Fr.) Fr. Trichaptum biforme (Fr.) Ryvarden [14,15,17,26,60,62] [26,28,61]

P.A. Lemke [15,17,22,66]

Boidin [15]

Aleurodiscus mesaverdensis (Lindsey)

Trichaptum byssogenum (Jungh.) Amylosporus campbellii (Berk.) Ryvarden Ryvarden [28] [26,27,61] Trichaptum laricinum (P. Karst.) Amylostereum chailletii (Pers.: Fr.) Boidin [15,17,26] Ryvarden [28] *Trichaptum sector* (Ehrenb.: Fr.) Asterostroma cervicolor (Berk. & M.A. Kreisel [15,26,61] Curtis) Massee [15,17,26,61] Trichaptum subchartaceum (Murrill) Asterostroma muscicola (Berk. & M.A. Ryvarden [15,17,26,28,61] Curtis) Massee [15,26,45,61] Tubulicrinis calothrix (Pat.) Donk Auriscalpium vulgare Gray [15,60,61,62] [15,17,26,61] Chaetoderma luna (Romell ex D.P. Rogers Tubulicrinis chaetophora (Höhn.) Donk & H.S. Jacks.) Parmasto [14,15,17,26] [14,15,17,26,61] Clavicorona divaricata Leathers & A.H. Tubulicrinis gracillimus (Ellis & Everh. Sm. [NR,65] ex D.P. Rogers & H.S. Jacks.) G. Cunn. Clavicorona pyxidata (Pers.: Fr.) Doty [14,15,17,26,61] [15,21,60,62] Tubulicrinis hamatus (H.S. Jacks.) Cryptochaete rufa (Fr.) P. Karst. [NR,61] Donk [15,26] Dichostereum granulosum (Pers.: Fr.) Boidin & Lanq. [14,15,17,26] Tubulicrinis medius (Bourdot & Galzin) Oberw. [15] Dichostereum pallescens (Schwein.) Boidin Tubulicrinis subulatus (Bourdot & & Lang. [15,26] Galzin) Donk [14,15,17,26,61] Echinodontium tinctorium (Ellis & Everh.) Tyromyces destructor (Schrad.) Ellis & Everh. [15,26,27,60] Bondartsev & Singer [26] Gloeocystidiellum clavuligerum (Höhn. & Tyromyces immitis (Peck) Bondartsev Litsch.) Nakasone [NR,61] Gloeocystidiellum convolvens (P. Karst.) [26] Tyromyces lacteus (Fr.) Murrill [NR,61] Donk [15,17,26,61] Tyromyces leucospongia (Cooke & Gloeocystidiellum karstenii (Bourdot & Harkn.) Bondartsev & Singer [17,26,28] Galzin) Donk [15,26,61,66] Tyromyces undosus (Peck) Murrill Gloeocystidiellum lactescens (Berk.) Boidin [14,26][15,17,26,61] Veluticeps abietina (Pers.: Fr.) Gloeocystidiellum leucoxanthum (Bres.) Hjortstam & Tellería [26] Boidin [15,26,66] Veluticeps berkeleyi Cooke Gloeocystidiellum luridum (Bres.) Boidin [14,15,26,61] [15,26,66] Veluticeps fimbriata (Ellis & Everh.) Gloeocystidiellum porosum (Berk. & M.A. Nakasone [NR.61] Curtis) Donk [15,17,26,61] Veluticeps pimeriensis (Gilb.) Gloeocystidiellum sulfureoisabellinum Hjortstam & Tellería [14,15,26,61] (Litsch.) Boidin [NR,61] Wolfiporia dilatohypha Ryvarden & Gloeodontia discolor (Berk. & M.A. Curtis) Gilb. [15] Boidin [15,26,61] Wolfiporia sulphurea (Burt) Ginns Gloiodon strigosus (Sw.: Fr.) P. Karst. [15,19,26] [15,26] Xenasmatella vaga (Fr.) Stalpers Hericium coralloides (Scop.: Fr.) Pers. [14,15,17,26,61] [15,21,26,60,62] Hericium erinaceus (Bull.: Fr.) Pers. [15,26,60,62] Russulales Heterobasidion annosum (Fr.: Fr.) Bref. Aleurodiscus bertii Lloyd [15,17,61] [14,15,26,27,61] Aleurodiscus cerussatus (Bres.) Höhn. Lactarius alnicola A.H. Sm. [NR,62] & Litsch. [15] Lactarius aspideoides Burl. [NR.67] Aleurodiscus diffissus (Sacc.) Burt Lactarius barrowsii Hesler & A.H. Sm. [15,61] [NR,62] Aleurodiscus fennicus Laurila [15] Lactarius chrysorrheus Fr. [NR,60] Aleurodiscus lividocaeruleus (P. Karst.)

Lactarius controversus (Pers.: Fr.) Fr.

[NR,67]

Lactarius deliciosus (L.: Fr.) Gray Peniophora pithya (Pers.) J. Erikss. [NR,60,62] [15,17,61] Lactarius indigo (Schwein.) Fr. Peniophora polygonia (Pers.: Fr.) Bourdot & Galzin [15,17] [NR,60,62] Peniophora pseudopini Weresub & I.A.S. Lactarius montanus var. montanus (Hesler & A.H. Sm.) Montoya & Band.-Gibson [15] Muñoz [29] Peniophora quercina (Pers.: Fr.) Cooke [15] Lactarius mucidus Burl. [NR,62] Peniophora rufa (Pers.: Fr.) Boidin [15,17] Lactarius pubescens var. pubescens Peniophora subsulphurea (P. Karst.) Höhn. & Litsch. [NR,61] (Fr.) Fr. [29] Lactarius repraesentaneus Britzelm. Peniophora tamaricicola Boidin & Malençon [18,19,30,45] [29] Lactarius resimus var. resimus (Fr.: Fr.) Peniophora versiformis (Berk. & M.A. Curtis) Bourdot & Galzin [15,17,26] Fr. [29] Lactarius rubrilacteus Hesler & A.H. Peniophora violaceolivida (Sommerf.) Sm. [NR,62] Massee [15,17] Lactarius rufulus Peck [NR,62] Russula abietina Peck [NR,68] Lactarius subdulcis (Bull.: Fr.) Gray Russula aeruginea Fr. [NR,68] [NR,60] Russula aeruginosa Pers. [NR,62] Lactarius subvillosus Hesler & A.H. Russula albonigra (Krombh.) Fr. [NR,62] Sm. [29] Russula alutacea (Fr.) Fr. [NR,60,62,63,68] Lactarius torminosus (Schaeff.: Fr.) Russula amethystina Quél. [NR,63,68] Gray [NR,60] Russula amoenicolor Romagn. [NR,68] Lactarius trivialis (Fr.: Fr.) Fr. [4] Russula atroviolacea Burl. [8] Lactarius uvidus (Fr.) Fr. [NR,62] Russula brevipes Peck [NR,62,68] Lactarius vinaceorufescens A.H. Sm. Russula cinereovinosa Fatto [8,9,63,68] [NR,62] Russula claroflava Grove [NR,62] Lactarius volemus (Fr.) Fr. [NR,60] Russula cochisei Fatto [8,63,68] Lactarius xanthogalactus Peck [NR,62] Russula compacta Frost [NR,60] Lactarius zonarius (Bull.) Fr. [NR,67] Russula decolorans (Fr.) Fr. [NR,62] Lentinellus cochleatus (Pers.: Fr.) P. Russula delica Fr. [4,60,62] Karst. [15,26,60] Russula densifolia Secr. ex Gillet Lentinellus micheneri (Berk. & M.A. [NR,60,62,68] Curtis) Pegler [15,60,62] Russula emetica (Schaeff.: Fr.) Pers. Lentinellus ursinus (Fr.: Fr.) Kühner [NR,60] [15,26,60,62] Russula foetens (Pers.: Fr.) Pers. [NR.60] Martellia ellipsospora (Zeller) Singer & Russula fragrantissima Romagn. [NR,62] A.H. Sm. [11,13,52] Russula grata Britzelm. [4] Mucronella calva (Alb. & Schwein.) Fr. Russula heterophylla (Fr.: Fr.) Fr. [14,15,17,26,61] [NR,62,68] Peniophora albobadia (Schwein.: Fr.) Russula integra (L.: Fr.) Fr. [NR,62] Boidin [15,19,26,45] Russula lutea (Huds.: Fr.) Fr. Peniophora cinerea (Pers.: Fr.) Cooke [NR,60,62,63,68] [15] Russula macropoda Singer [NR,68] Peniophora firma Burt [NR,61] Russula maculata Quél. & Roze [NR,67] Peniophora flavidoalba Cooke [NR,61] Russula nigricans (Bull.) Fr. [4,62] Peniophora gilbertsonii Boidin [15] Russula nobilis Velen. [NR,67] Peniophora laurentii S. Lundell Russula ornaticeps Burl. [NR,68] [17,26,61] Russula palustris Peck [NR,60] Peniophora ludoviciana Burt [17] Russula pectinatoides Peck [NR,68] Peniophora nuda (Fr.: Fr.) Bres. Russula rhodopoda Zvára [NR,63,68] [15,17,19,61] Russula sanguinaria (Schumach.) Rauschert Peniophora odorata (P. Karst.) Burt [NR,62] [NR.61] Russula subfoetens Wm.G. Sm. [NR,68] Peniophora perexigua H.S. Jacks. Russula veternosa Fr. [4] [15,17,61] Russula virescens (Schaeff.) Fr. [NR,67]

Russula xerampelina (Schaeff.) Fr. Pseudotomentella tristis (P. Karst.) M.J. [NR,60,63,68] Larsen [14,15,26] Russula zelleri Burl. [NR,68] Sarcodon calvatus (K.A. Harrison) K.A. Scytinostroma arachnoideum (Peck) Harrison [NR,62] Gilb. [15,26] Sarcodon imbricatus (L.: Fr.) P. Karst. Scytinostroma galactinum (Fr.) Donk [NR,60,62] [14,15,17,26] Thelephora caryophyllea (Schaeff.) Pers.: Scytinostroma ochroleucum (Bres. & Fr. [15] Torrend) Donk [15,26] Thelephora cuticularis Berk. [15] Thelephora regularis Schwein. [15] Scytinostroma protrusum (Burt) Nakasone [15,17,26] Thelephora terrestris Ehrh.: Fr. [14,15,26,62] Stereum gausapatum (Fr.) Fr. [26] Tomentella atrocyanea Wakef. [15] Stereum hirsutum (Willd.) Pers.: Fr. Tomentella badia (Link) Stalpers [14,15,26] [15,26,62] Stereum ochraceoflavum (Schwein.) Fr. Tomentella botryoides (Schwein.) Bourdot [15,26] & Galzin [14,15,26] Stereum ostrea (Blume & T. Nees) Fr. Tomentella bryophila (Pers.) M.J. Larsen [15,26] [26] Stereum sanguinolentum (Alb. & Tomentella cinerascens (P. Karst.) Höhn. & Schwein.) Fr. [15,26] Litsch. [15,26] Vararia athabascensis Gilb. [15,26] Tomentella coerulea (Bres.) Höhn. & Litsch. Vararia fibra A.L. Welden [15,21,23] [19,26] Vararia investiens (Schwein.) P. Karst. Tomentella crinalis (Fr.) M.J. Larsen [15,26,61] [15] Vararia racemosa (Burt) D.P. Rogers & Tomentella ellisii (Sacc.) Jülich & Stalpers H.S. Jacks. [15,17,26] [15] Tomentella ferruginea (Pers.: Fr.) Pat. Vararia tropica A.L. Welden [19,21] Vesiculomyces citrinus (Pers.) E. [15,26] Tomentella fuscocinerea (Pers.: Fr.) Donk Hagstr. [14,15,17,26,61,66] Wrightoporia lenta (Overh. & J. Lowe) [15,26,61] Pouzar [15,26] Tomentella italica (Sacc.) M.J. Larsen [15] Tomentella lapida (Pers.) Stalpers [14,15,26] **Thelephorales** Tomentella lateritia Pat. [14,15,26,61] Amaurodon mustialaensis (P. Karst.) Tomentella lilacinogrisea Wakef. [15,26] Kõljalg & K.H. Larss. [15,26] Tomentella microspora (P. Karst.) Höhn. & Amaurodon viridis (Alb. & Schwein.: Litsch. [26] Fr.) J. Schröt. [15] Tomentella pilosa (Burt) Bourdot & Galzin Hydnellum concrescens (Pers.) Banker [14,15,26] [NR,60] Tomentella punicea (Alb. & Schwein.: Fr.) Hydnellum conigenum (Peck) Banker J. Schröt. [15,26] [NR,62] Tomentella sparsa (Burt) Bourdot & Galzin Hydnellum humidum (Banker) Banker [NR,60] Tomentella stuposa (Link) Stalpers [15] Hydnellum regium K.A. Harrison Tomentella terrestris (Berk. & Broome) [NR.62] M.J. Larsen [15] *Hydnellum suaveolens* (Scop.: Fr.) P. Tomentella umbrinella (Bourdot & Galzin) Karst. [NR,60] M.P. Christ. [14,26] Phlyctibasidium polyporoideum (Berk. Tomentella umbrinospora M.J. Larsen [15] & M.A. Curtis) Jülich [15] Tomentella viridescens (Bres. & Torrend) Polyozellus multiplex (Underw.) Murrill Bourdot & Galzin [15] [NR,65] Tomentella viridis (Berk.) G. Cunn. Pseudotomentella atrofusca M.J. Larsen

[14.26.61]

[15]

Pseudotomentella mucidula (P. Karst.)

Svrček [14,15,26]

Tomentellastrum caesiocinereum Svrček

*Tomentellina fibrosa* (Berk. & M.A. Curtis) M.J. Larsen [14,15,26,61]

#### **Tremellales**

Aporpium caryae (Schwein.) Teixeira & D.P. Rogers [26]

Basidiodendron caesiocinereum (Höhn. & Litsch.) Luck-Allen [15,26]

*Basidiodendron cinereum* (Bres.) Luck-Allen [14,15,26]

*Basidiodendron eyrei* (Wakef.) Luck-Allen [15,26]

Basidiodendron fulvum (Massee) Ginns [15]

Basidiodendron grandinioides (Bourdot & Galzin) Luck-Allen [26]

Ductifera sucina (A. Møller) K. Wells [NR,61]

Eichleriella schenkii Burt [15]

Eichleriella spinulosa (Berk. & M.A.

Curtis) Burt [NR,61]

Exidia glandulosa (Bull.) Fr.: Fr.

[15,21,26,61]

Exidia nucleata (Schwein.) Burt [26]

Exidia recisa (Ditmar) Fr. [NR,61]

Exidia saccharina Fr.: Fr. [15,26]

Exidiopsis leucophaea (Bres.) K. Wells [19,26]

Exidiopsis molybdea (McGuire) Ervin [15,26]

Exidiopsis opalea (Bourdot & Galzin)

D.A. Reid [26]

Microsebacina fugacissima (Bourdot &

Galzin) P. Roberts [15,26]

Myxarium atratum (Peck) Ginns &

M.N.L. Lefebvre [15]

Pseudohydnum gelatinosum (Scop.: Fr.)

P. Karst. [15,26,62]

Sebacina calcea (Pers.: Fr.) Bres.

[15,19,22,26,61]

Sebacina epigaea (Berk. & Broome)

Bourdot & Galzin [15,21]

Stypella glaira (Lloyd) P. Roberts [15]

Stypella subhyalina (A. Pearson) P.

Roberts [15,21]

Tremella foliacea Pers.: Fr. [15,26,61]

Tremella mesenterica Retz.: Fr. [15,26]

Tremella simplex H.S. Jacks. & G.W.

Martin [19,26]

Tremella subanomala Coker [15]

Tremella tubercularia Berk. [15,26]

# Tulasnellales

*Tulasnella allantospora* Wakef. & A. Pearson [14,15,26]

*Tulasnella violea* (Quél.) Bourdot & Galzin [14,15,26]

#### **Incertae Sedis**

Colacogloea peniophorae (Bourdot & Galzin) Oberw., R. Bauer & Bandoni [19,26]

Helicobasidium candidum G.W. Martin [15,26]

Helicobasidium corticioides Bandoni [15] Helicogloea contorta G.E. Baker [15]

Helicogloea farinacea (Höhn.) D.P. Rogers [15,26]

Helicogloea lagerheimii Pat. [15,26]

Phymatotrichopsis omnivora (Duggar)

Hennebert [15,21,45]

Platygloea mycophila Burds. & Gilb. [19]

#### ZYGOMYCOTA

# **Endogonales**

Endogone lactiflua Berk. [55,64]

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