

NOTES ON WOOD-ROTTING HYMENOMYCETES
IN NEW MEXICO¹

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ABSTRACT. One hundred and ninety species of wood-rotting Basidiomycetes in the series Hymenomycetes of the subclass Homobasidiomycetes are reported from New Mexico. Data on substratum relationships and types of rot are given.

This paper records 190 species of wood-rotting Basidiomycetes collected in New Mexico by the authors in 1967, 1968, and 1972. Notes concerning habitat, type of rot, and unusual characteristics are presented.

Collecting was confined primarily to coniferous forest zones from the pinyon-juniper woodland upward through the ponderosa pine forest, Douglas fir forest, and spruce-fir forest zones as defined by Little (1950). These zones extend approximately from 4,500 to 12,000 ft. in elevation. The highest locality represented in our collecting stations is the summit of the Sandia Mts., at 10,678 ft. The major substrata were *Pinus ponderosa* Laws. (ponderosa pine), *Pseudotsuga menziesii* (Mirb.) Franco (Douglas fir), *Abies concolor* (Gord. et Glend.) Lindl. (white fir), *Populus tremuloides* Michx. (quaking aspen), *Pinus edulis* Engelm. (pinyon), and *Quercus gambelii* Nutt. (Gambel oak). The dates and locations for collections cited are as follows:

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| R. L. Gilbertson | | |
| 13 September 1967 | 7373-7392 | Bandelier Nat. Monument, Sandoval County |
| | 7393-7397 | Los Alamos, Sante Fe Nat. Forest, Los Alamos County |
| 16 September 1967 | 7398-7407 | Gallinas Peak Area, Cibola Nat. Forest, Lincoln County |

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| 17 September 1967 | 7408–7425 | Cloudcroft, Sacramento Mts., Lincoln Nat. Forest, Lincoln County |
| | 7426–7512 | 16 Springs Area, Sacramento Mts., Lincoln Nat. Forest, Lincoln County |
| 19 August 1968 | 7972–8016 | Sandia Mts., Cibola Nat. Forest, Bernalillo County |
| 20 August 1968 | 8017–8033 | Los Alamos, Santa Fe Nat. Forest, Los Alamos County |
| | 8034–8041 | Bandelier Nat. Monument |
| 21 August 1968 | 8042–8071 | Sandia Mts. |
| 23 August 1968 | 8072–8086 | Cloudcroft |
| | 8087–8174 | 16 Springs |
| 31 October 1972 | 10816–10838 | Indian Creek, Animas Mts., Hidalgo County |
| H. H. Burdsall, Jr. | | |
| 13–14 August 1968 | 977–1107 | Sandia Mts. |
| 16 August 1968 | 1108–1217 | Zuni Canyon, Cibola Nat. Forest, Valencia County |
| 19 August 1968 | 1218–1258 | Sandia Mts. |
| | 1294–1295 | |
| 20 August 1968 | 1259–1293 | Bandelier Nat. Monument |
| 21–23 August 1968 | 1296–1370 | Sandia Mts. |
| M. J. Larsen | | |
| 15–18 August 1968 | 2608–2789 | Sandia Mts. |
| 20 August 1968 | 2790–2826 | Bandelier Nat. Monument |
| 21 August 1968 | 2827–2849 | Sandia Mts. |
| 22 August 1968 | 2859–2878 | Gallinas Peak Area |
| | 2879–2886 | Deerhead, Sacramento Mts., Lincoln Nat. Forest, Lincoln County |
| 23 August 1968 | 2887–2890 | Cloudcroft |
| | 2891–2968 | 16 Springs |
| 24 August 1968 | 2970–2977 | Deerhead |
| | 2978–3011 | Silver Springs Canyon: Sacramento Mts., Lincoln Nat. Forest. |
| | | Lincoln County |
| | 3012–3034 | Deerhead |

Unless otherwise specified, the substratum is dead standing or fallen trees of the species given. The fungi that cause heartrot in living trees or shrubs or identified as such.

The fungi reported in this paper all belong in the order Aphyllophorales of the series Hymenomycetes of the subclass Homobasidiomycetes. The grouping by families essentially follows the arrangement of Donk (1964). Selected references to literature for identification and nomenclature of the fungi included are given for each of these families.

Voucher specimens are deposited in the herbaria at the University of Arizona (ARIZ) and the Center for Forest Mycology Research

(CFMR). Duplicate specimens of many are also in the National Fungus Collections. Beltsville, Md. (BPI). Collections by M. J. Larsen are also in the herbarium of the Great Lakes Forest Research Center, Sault Ste. Marie, Ontario, Canada (SSMF).

CONIOPHORACEAE

(references: Burt, 1926; Christiansen, 1960)

1. CONIOPHORA ARIDA (Fr.) Karst., on ponderosa pine, RLG 7435; HHB 1141, 1145, 1287; on one-seed juniper (*Juniperus monosperma* Engelm.), RLG 7400. Associated with a brown cubical rot. Common on conifers in the Southwest.
2. CONIOPHORA CORRUGIS Burt, on Rocky Mountain maple (*Acer glabrum* Torr.); RLG 7999. Associated with a white rot. Common in the Rocky Mts. on wood that has been covered by snow.
3. CONIOPHORA MUSTIALAENSIS (Karst.) Masee, on ponderosa pine, RDG 7465.
4. CONIOPHORA OLIVASCENS (Berk. et Curt.) Masee, on ponderosa pine. RLG 7492; HHB 1149.
5. CONIOPHORA PUTEANA (Schum. ex Fr.) Karst., on white fir. RLG 7506. 7972; 7983; HHB 1246; on ponderosa pine, HHB 1139. Associated with a brown cubical rot.
6. CONIOPHORA SUFFOCATA (Pk.) Masee, on ponderosa pine, RDG 7435; HHB 1122, 1127; MJL 2931.
7. CONIOPHORELLA OLIVACEA (Fr.) Karst., on ponderosa pine, RLG 7380, 8038, 8120; HHB 1281; MJL 2798, 2802; on quaking aspen, RLG 8170; on Gambel oak, RLG 8123. Common in the coniferous forests of the Rocky Mountain region.
8. SERPULA HIMANTIOIDES (Fr. ex Fr.) Karst., on ponderosa pine. RLG 8116; MJL 2931; on white fir. RLG 8056; HHB 1301; MJL 2829, 2831; on coinfer, MJL 2689; on quaking aspen, RLG 8052; on oak (*Quercus* sp.), HHB 1314. Associated with a brown rot.
9. SERPULA PINASTRI (Fr.) Bond., on ponderosa pine. RLG 8136; on white fir. RLG 7986; on pinyon, HHB 1178; on quaking aspen, RLG 8150; MJL 2947. Associated with a brown rot.

CORTICIACEAE

(references: Eriksson, 1958; Christiansen, 1960; Parmasto, 1969)

10. ALEURODISCUS LIVIDOCOERULEUS (Karst.) Lemke, on ponderosa pine. RLG 7373; on white fir, RLG 7989. on Rocky Mountain maple, RLG 8000. Associated with a white rot of conifers, rarely on hardwoods.
11. AMPHINEMA BYSSOIDES (Fr.) J. Erikss., on ponderosa pine, HHB 1286; on white fir, RLG 7997; on conifer, MJL 2823; on quaking aspen, HHB 2234, 1337; on Rocky Mountain maple, HHB 1236. Associated with a white rot of conifers and hardwoods.
12. AMPHINEMA TOMENTELLUM (Bres.) M. P. Chris., on Gambel oak, RLG 8106. Associated with a white rot. Apparently rare in the Southwest and unknown elsewhere in North America.

13. *ATHELIA BICOLOR* (Pk.) Parm., on quaking aspen, RLG 7383; on ponderosa pine, HHB 1114; on white fir, MJL 2987. Usually on very rotten wood and associated with conspicuous bright yellow rhizomorphs. This species is an important mycorrhizal associate (Vozzo, 1971, p. 190).
14. *ATHELIA DECIPIENS* (Hoehn. et Litsch.) J. Erikss.. on ponderosa pine, RLG 7483; HHB 1148, 1172; on white fir, RLG 7988. Associated with a white rot.
15. *ATHELIA FUSCOSTRATA* (Pers.) Donk, on white fir, RLG 7988. Associated with a white rot.
16. *ATHELIA GALZINI* (Bourd.) Donk, on ponderosa pine, RLG 8041, 9090. Associated with a white rot.
17. *ATHELIA SCUTELLARE* (Berk. et Curt.) Gilbertson et Bundington, on ponderosa pine. RLG 7476. Associated with a white rot.
18. *BOTRYOBASIDIUM BOTRYOSUM* (Bres.) J. Erikss., on white fir, HHB 1252.
19. *BOTRYOBASIDIUM SUBCORONATUM* (Hoehn. et Litsch.) Donk, on ponderosa pine, RLG 8108, 8124. Associated with a white rot of conifers and hardwoods. Common in coniferous forests of the Southwest.
20. *BOTRYOBASIDIUM VAGUM* (Berk. et Curt.) Rogers, on ponderosa pine. HHB 1118, 1124, 1142. Associated with a white rot.
21. *BOTRYOHYPHOCNUS ISABELLINUS* (Fr.) J. Erikss., on ponderosa pine. RLG 7494, 8040-B; MJL 2852. Associated with a white rot.
22. *BYSSOCORTICIUM NEOMEXICANUM* Gilbertson et Bundington, on ponderosa pine. RLG 7374, 7449; HHB 1285. Associated with a white rot. Known only from New Mexico.
23. *BYSSOMERULIUS ARMENIACUS* (Bres.) Parm., on quaking aspen. HHB 1230. Associated with a white rot of conifers and hardwoods at higher elevations in coniferous forest zones.
24. *BYSSOMERULIUS CORIUM* (Fr.) Parm.. on ponderosa pine, RLG 7431; on oak. HHB 1019; MJL 2682. Associated with a white rot of dead branches on living trees
25. *BYSSOMERULIUS INCARNATUS* (Schw.) Parm., on white fir, HHB 900. Associated with a white rot. A rare species resembling *B. corium*, but having clamp connections.
26. *BYSSOMERULIUS SERPENS* (Tode ex Fr.) Parm., on white fir, MJL 2652, 2655; on conifer, MJL 2637. Associated with a white rot of conifers and hardwoods.
27. *CHAETODERMA LUNA* (Rom.) Parm., on ponderosa pine, HHB 1116. Associated with a brown cubical rot of decorticated conifer logs at high elevations. Common in the northern Rocky Mts., but rare in the Southwest.
28. *CRUSTODERMA DRYINUM* (Berk. et Curt.) Parm., on ponderosa pine, RLG 8094; HHB 1290; on quaking aspen, MJL 2788. Associated with a white rot.
29. *DACRYOBOLUS KARSTENII* (Bres.) Parm., on ponderosa pine, RLG 7426, 7458, 8024, 8384; HHB 1140, 1265, 1267, 1290; MJL 2805, 2937; on Douglas fir: RLG 8155; on Gambel oak, RLG 7412. Associated with a brown cubical rot that has a strong anise odor when fresh. Common on ponderosa pine logs.
30. *DACRYOBOLUS SUDANS* (Fr.) Fr., on pinyon, HHB 1134, 1135. Associated with a brown cubical rot.
31. *GLOEOCYSTIDIELLUM CITRINUM* (Pers.) Donk, on ponderosa pine, RLG 7418, 8127. Associated with a white rot. Common on ponderosa pine logs.

32. GLOEOCYSTIDIELLUM CONVOLVENS (Karst.) Donk, on quaking aspen. HHB 1346. Associated with a white rot.
33. GLOEOCYSTIDIELLUM HETEROGENEUM Bourd. et Galz., on ponderosa pine, RLG 7382-A, 7437-A, 7466, 7473, 8023; HHB 1270. Associated with a white rot.
34. GLOEOCYSTIDIELLUM POROSUM (Berk. et Curt.) Donk, on quaking aspen, RLG 8049. Associated with a white rot.
35. HYPHODERMA ARGILLACEUM (Bres.) Donk, on ponderosa pine, RLG 7437; on hardwood, MJL 2722. Associated with a white rot.
36. HYPHODERMA PILOSUM (Burt) Gilbertson et Budington, on silverleaf oak (*Quercus hypoleuroides* A. Camus), RLG 10828. Associated with a white rot.
37. HYPHODERMA POPULNEA (Pk.) Donk, on quaking aspen, RLG 7411. Associated with a white rot of dead aspen.
38. HYPHODERMA PUBERUM (Fr.) Wallr., on ponderosa pine, RLG 7382. Associated with a white rot.
39. HYPHODERMA TENUE (Pat.) Donk, on pond-rosa pine. HHB 1170; on quaking aspen, HHB 1205. Associated with a white rot.
40. HYPHODONTIA ALUTACEA (Fr.) J. Erikss., on ponderosa pine, RLG 7391. Associated with a white rot.
41. HYPHODONTIA ALUTARIA (Burt) J. Erikss., on ponderosa pine, HHB 1286. Associated with a white rot.
42. HYPHODONTIA ARGUTA (Fr.) J. Erikss., on ponderosa pine, RLG 7429, 7452; on white fir, HHB 999; MJL 2832. Associated with a white rot.
43. HYPHODONTIA BREVISETA (Karst.) J. Erikss., on ponderosa pine, HHB 1143. Associated with a white rot.
44. HYPHODONTIA HASTATA (Litsch.) J. Erikss., on ponderosa pine, RLG 7375. Associated with a white rot.
45. HYPHODONTIA PALLIDULA (Bres.) J. Erikss., on ponderosa pine, RLG 7439, 7489. Associated with a white rot.
46. HYPHODONTIA SAMBUCI (Pers. ex Fr.) J. Erikss., on quaking aspen, HHB 1200, 1208. Associated with a white rot.
37. HYPHODONTIA SPATHULATA (Fr.) Parm., on ponderosa pine, HHB 1260. Associated with a white rot.
48. HYPOCHNICIUM BOMBYCINUM (Sommerf. ex Fr.) J. Erikss., on ponderosa pine, RLG 7438; on oak, HHB 1018, 1036. Associated with a white rot.
49. HYPOCHNICIUM GEOGENIUM (Bres.) J. Erikss., on ponderosa pine, RLG 7468. Associated with a white rot.
50. HYPOCHNICIUM PUNCTULATUM (Cke.) J. Erikss., on Douglas fir, RLG 8162. Associated with a white rot.
51. LAETICORTICIUM ROSEUM (Pers. ex Fr.) Donk, on quaking aspen, RLG 74.20; MJL 3009. Associated with a white rot.
52. LEUCOGYROPHANA MOLLUSCA (Fr.) Pouz., on ponderosa pine, RLG 8019, 8027; HHB 1121, 1123, 1138, 1266; MJL 2790, 2806. Associated with a white rot.
53. LEUCOGYROPHANA PSEUDOMOLLUSCA (Parm.) Parm., on ponderosa pine, RLG 7425. Associated with a brown rot. Common on ponderosa pine logs in the Southwest.
54. ODONTIA PRUNI Lasch, on hardwood, MJL 2756. Associated with a white rot.

55. PENIOPHORA CINEREA (Fr.) Cke., on white fir, MJL 2707. Associated with a white rot.
56. PENIOPHORA LUDOVICIANA Burt, on quaking aspen, HHB 1227. Associated with a white rot.
57. PENIOPHORA POLYGONIA (Pers. ex Fr.) Bourd. et Galz., on quaking aspen, RLG 7421; HHB 1326. Associated with a white rot. Common on fallen aspen.
58. PENIOPHORA SULPHURINA (Karst.) Hoehn. et Litsch., on ponderosa pine, RLG 7488. Associated with a white rot.
59. PENIOPHORA TERRICOLA Burt, on quaking aspen, MJL 2961. Associated with a white rot.
60. PHANEROCHAETE ARIZONICA Burds. et Gilbertson, ined., on hairy mountain mahogany (*Cercocarpus breviflorus* A. Gray), RLG 10816. Common on hardwoods in the Southwest.
61. PHANEROCHAETE CARNOSA (Burt) Parm., on ponderosa pine, RLG 8141; on Gambel oak, RLG 7412, 8107; on white fir, RLG 7980; on alder (*Alnus* sp.), HHB 1378. Associated with a white rot. Common on conifers and hardwoods in the Southwest.
62. PHANEROCHAETE CREMEA (Bres.) Parm., on quaking aspen. RLG 8046; on oak, HHB 1039. Associated with a white rot.
63. PHANEROCHAETE SANGUINEA (Fr.) Pouz., on ponderosa pine. MJL 2877; on oak, MJL 2075. Associated with a white rot characterized by a bright red discoloration in the early stages. This fungus is not found as commonly in the Southwest as it is farther north through the Rocky Mts.
64. PHANEROCHAETE VELUTINA (DC. ex Fr.) Jülich, on ponderosa pine, RLG 7466. Associated with a white rot. Common on ponderosa pine in the Southwest.
65. PHLEBIA ALBIDA Post ex Fr., on white fir, RLG 7505. Associated with a white rot.
66. PHLEBIA GIGANTEA (Fr.) Donk, on ponderosa pine, RLG 8147; HHB 1159, 1160; MJL 2893; on white fir, MJL 2945; on conifer, MJL 2608. Associated with a white rot of conifer logs and stumps.
67. PHLEBIA LIVIDA (Fr.) Bres., on ponderosa pine, RLG 8137. Associated with a white rot.
68. PHLEBIA PHLEBIOIDES (Jacks. et Deard.) Gilbertson et Budington. on ponderosa pine, RLG 5037. Associated with a white rot.
69. PHLEBIA SUBSERIALIS (Bourd. et Galz.) Donk. on ponderosa pine, RLG 8099. Associated with a white rot.
70. PLICATURA AUREA (Fr.) Parm., on ponderosa pine, RLG 7433; HHB 1264; MJL 2804; on Douglas fir, RLG 8159. Associated with a brown cubical rot. Common on ponderosa pine.
71. REPETOBASIDIUM MIRIFICUM, J. Erikss., on white fir, MJL 2986. Associated rot unknown. The basidiocarps are so thin that they are almost invisible to the naked eye.
72. RESINICIUM CHIRICAHUAENSIS Gilbertson et Budington, on ponderosa pine, RLG 7436, 8087, 8089, 8101; on Douglas fir, RLG 8095. Associated with a white rot.
73. SISTOTREMA BRINKMANNII (Bres.) J. Erikss., on white fir, MJL 2712; on quaking aspen, HHB 1228.
74. TRECHISPORA AMIANTHINA (Bourd. et Galz.) Liberta, on ponderosa pine, HHB 1114. Associated with a white rot.

75. TRECHISPORA CANDIDISSIMA (Schw.) Bond. et Sing. (q.e., *Trechispora mollusca* (Pers. ex Fr.) Liberta, *sensu orig.*), on ponderosa pine, RLG 7477, 7484, 7485; on pinyon, HHB 1151; MJL 2868. Associated with a white rot.
76. TRECHISPORA CONFINIS (Bourd. et Galz.) Liberta. on white fir. RLG 7975; HHB 1058, 1229, 1239. 1244. Associated with a white rot.
77. TRECHISPORA FARINACEA (Pers. ex Fr.) Liberta, on ponderosa pine. RLG 7475. 7482, 8020, 8030; on box elder (*Acer negundo* L.), RLG 7393; on oak. HHB 991. Associated with a white rot.
78. TRECHISPORA PALLIDO-AURANTIACA Gilbertson et Budington. on ponderosa pine, RLG 7381, 8025. Associated with a white rot.
79. TRECHISPORA VAGA (Fr.) Liberta, on ponderosa pine, RLG 7447; on white fir. RLG 7998; HHB 1237. Associated with a white rot.
80. TUBULICRINIS GLEBULOSUS (Bres.) Donk, on ponderosa pine, RLG 8138; HHB 1174. Associated with a white rot.
81. TUBULICRINIS PROPINQUUS (Bourd. et Galz.) Donk, on white fir, RLG 7974. Associated with a white rot.
82. TUBULICRINIS SUBULATUS (Bourd. et Galz.) Donk. on ponderosa pine. RLG 7385; HHB 1445. Associated with a white rot.

CYPHELLACEAE

(references: Cooke, 1951; Reid, 1963)

83. CYPHELLA FULVESCENS Bourd. et Galz., on quaking aspen, HHB 1332. 1359.
84. CYPHELLOPSIS ANOMALA (Pers. ex. Fr.) Donk, on quaking aspen, HHB 1343.
85. HENNINGSOMYCES CANDIDA (Pers.) O. Kuntz, on white fir, HHB 1253, 1302.
86. POROTHELEUM FIMBRIATUM (Pers.) Fr. on hardwood, MJL 2723. Associated with a white rot.

ECHINODONTIACEAE

(reference: Gross, 1964)

87. ECHINODONTIUM TINCTORIUM (Ell. et Ev.) Ell. et Ev., on white fir. HHB 1295; MJL 2677. Associated with a brownish stringy rot of the heartwood in living trees and considered to be the most important cause of decay in white fir. Commonly known as the "Indian paint fungus."

GOMPHACEAE

(reference for *Kavinia*: Gilbertson, 1974)

88. KAVINIA ALBOVIRIDIS (Morg.) Gilbertson et Budington, on ponderosa pine. RLG 8110; on Douglas fir, RLG 8093; on white fir, RLG 8008; on conifer, MJL 2658, 2667, 2698. Associated with a white rot.
89. KAVINIA HIMANTIA (Schw.) J. Erikss., on ponderosa pine, RLG 7500. Associated with a white rot.

HERICIACEAE

(reference for *Mucronella*: Miller and Boyle, 1943)

90. MUCRONELLA AGGREGATA Fr., on conifer, MJL 2627.

HYDNACEAE

(reference for *Donkia*: Maas Geesteranus, 1962)

91. DONKIA PULCHERRIMA (Berk. et Curt.) Pilát, on white fir, MJL 2646. Associated with a white rot of fallen trees.

HYMENOCHAETACEAE

(references: Pegler, 1964; Bondarzev, 1953; Overholts, 1953; Lowe, 1957; Burt, 1918)

92. HYMENOCHAETE ARIDA Karst., on Gambel oak, RLG 7510. Associated with a white rot of fallen trees.
93. INONOTUS DRYADEUS (Pers. ex Fr.) Murr., on white fir. RLG 8057. Associated with a white rot of the heartwood in the butt and roots of living trees.
94. INONOTUS DRYOPHILUS (Berk.) Murr., on Gambel oak, RLG 7480; on Arizona white oak (*Quercus arizonica* Sarg.), RLG 10832. Associated with a white rot of the heartwood of living oaks.
95. PHELLINUS FERRUGINOSUS (Schrad. ex Fr.) Bourd. et Galz., on Douglas fir, RLG 8098; on conifer. MJL 2916; on Gambel oak, RLG 8122. Associated with a white rot of fallen trees.
96. PHELLINUS PINI (Thore. ex Fr.) Pilát, on ponderosa pine. MJL 2958. 2933. Associated with a white pocket rot of fallen trees. *P. pini* also causes a heart rot in Douglas fir, southwestern white pine and other conifers.
97. PHELLINUS ROBUSTUS (Karst.) Bourd. et Galz., on Arizona white oak. RLG 10826, 10827. Associated with white rot of heartwood in butt and roots of living oaks.
98. PHELLINUS TEXANUS (Murr.) Gilbertson et Canfield, on one-seed juniper. RLG 7406; on Rocky Mountain juniper (*Juniperus scopulorum* Sarg.) RLG 8042; HHB 1300. Associated with a white rot of the heartwood of living junipers.
99. PHELLINUS VITICOLA (Schw.) Donk, on ponderosa pine, RLG 8026. Associated with a white rot of fallen trees.
100. PHELLINUS WEIRIANUS (Bres.) Gilbertson, on Arizona black walnut (*Juglans major* (Torr.) Heller), RLG 7522. Associated with a white rot of the heartwood of living walnut and the major cause of decay in that species.

LACHNOCLADIACEAE

(references: Gilbertson, 1965; Welden, 1965, 1966; Parmasto, 1970)

101. ASTEROSTROMA OCHROLEUCUM Bres., on white fir, HHB 1254. Associated with a white rot of fallen trees.
102. ASTEROSTROMA ANDINUM Pat., on conifer, MJL 2678, 2699. Associated with a white rot of fallen trees.
103. SCYTINOSTROMA GALACTINUM (Fr.) Donk, on ponderosa pine. RLG 7387. Associated with a white rot of fallen trees.
104. VARARIA GRANULOSA (Fr.) M. Laur., on ponderosa pine, RLG 7377; HHB 1167. Associated with a white rot of fallen trees. Common in the central and northern Rocky Mts., but rare in the Southwest.
105. VARARIA PHYLLOPHILA (Mass.) Rogers et Jacks.: on quaking aspen. HHB 1310. Associated with a white rot.

POLYPORACEAE

(references: Overholts, 1953; Lowe, 1957, 1966;
Lowe and Gilbertson, 1961)

106. BJERKANDERA ADUSTUM (Willd. ex Fr.) Karst., on quaking aspen, RLG 8903; HHB 1352. Associated with a white rot of fallen trees. Common on aspen.
107. COLTRICIA PERENNIS (L. ex Fr.) Murr., on ground, RLG 7390; HHB 1357. A saprophyte on soil organic matter.
108. CORIOLELLUS CARBONARIUS (Berk. et Curt.) Bond. et Sing., on ponderosa pine. RLG 7457, 7472; HHB 1275, 1291; MJL 2813, 2816; on Douglas fir, RLG 8156; on white fir, MJL 2991; on conifer, MJL 2799. Associated with a brown cubical rot of charred conifer wood.
109. CORIOLUS HIRSUTUS (Wulf. ex Fr.) Quél., on white fir, MJL 2950; on Gambel oak, RLG 8135. Associated with a white rot.
110. CORIOLUS PUBESCENS (Schum. ex Fr.) Quél., on quaking aspen, RLG 8131. Associated with a white rot.
111. DAEDALEA CONFRAGOSA Bolt. ex Fr., on white fir, RLG 7507; on quaking aspen, HHB 1305. Associated with white rot.
112. DICHOMITUS SQUALENS (Karst.) D. Reid, on ponderosa pine, RLG 8174; HHB 1130; MJL 2967. Associated with a white pocket rot of the heartwood of living ponderosa pine and also of fallen conifers. The major cause of decay in ponderosa pine in the Southwest and commonly reported as *Polyporus anceps* Pk.
113. FAVOLUS ALVEOLARIS DC. ex Fr., on oak, MJL 2681; on quaking aspen, HHB 1199. Associated with a white rot.
114. FOMES CONNATUS (Fr.) Gill., on Arizona sycamore (*Platanus wrightii* S. Wats.) RLG 10830. Associated with a white rot of heartwood of living trees. Known from this single collection in the Southwest.
115. FOMES OHIENSIS (Berk.) Murr., on Arizona white oak, RLG 10819; on oak, RLG 10829. Associated with a white rot.
116. FOMES SCUTELLATUS (Schw.) Cke., on Arizona white oak, RLG 10833. Associated with a white rot.
117. FOMITOPSIS ANNOSA (Fr.) Karst., on white fir, RLG 7497; MJL 2943, 3011. Associated with a white pocket or stringy rot of fallen trees. Also reported to cause a rot-root in young ponderosa pine.
118. FOMITOPSIS CAJANDERI (Karst.) Kotl. et Pouz., on white fir, RLG 7498; on Douglas fir, RLG 8165; on ponderosa pine, RLG 7404; MJL 2923. Associated with a brown cubical rot.
119. FOMITOPSIS PINICOLA (Swartz ex Fr.) Karst., on white fir, HHB 1249; on Douglas fir, MJL 2734; on quaking aspen, MJL 2730. Associated with a brown cubical rot. Common on dead conifers and also occasionally causes a heartrot in living aspen.
120. GANODERMA APPLANATUM (Pers.) Pat., on quaking aspen, HHB 1363. Associated with a white mottled butt and rot-root of living aspen.
121. GLOEOPHYLLUM SAEPIARIUM (Wulf. ex Fr.) Karst., on ponderosa pine, HHB 1119; on conifer, MPL 2619. Associated with a brown cubical rot. Common on dead conifers.
122. GLOEOPORUS DICHROUS (Fr.) Bres., on ponderosa pine, RLG 7441; on silverleaf oak, RLG 10821. Associated with a white rot.
123. HAPALOPILUS NIDULANS (Fr.) Karst., on white fir, RLG 7062; MJL 2849; on *Quercus* sp., HHB 1035, 1045. Associated with a white rot.

124. *HIRSCHIOPORUS ABIETINUS* (Dicks. et Fr.) Donk, on pinyon, HHB 1123; on white fir, RLG 7978; HHB 1100, 1247; MJL 2612. Associated with a white pocket rot of the sapwood of dead conifers.
125. *HIRSCHIOPORUS SUBCHARTACEUS* (Murr.) Bond., on quaking aspen, HHB 1339. Associated with a white rot of sapwood. Common on aspen in some localities.
126. *IRPEX TULIPIFERAE* (Schw.) Fr., on ponderosa pine, RLG 7422; on Gambel oak, RLG 8134. Associated with a white rot.
127. *OSMOPORUS ODORATUS* (Wulf. ex Fr.) Sing., on Douglas fir, RLG 8154; on white fir, MJL 2778. Associated with a brown cubical rot.
128. *PHAEOLUS ALBOLUTEUS* (Ell. et Ev.) Pilát, on white fir, HHB 1243; on quaking aspen, RLG 7994. Associated with a brown cubical rot of fallen trees. The orange basidiocarps develop beneath snow and deteriorate rapidly in the spring and early summer.
129. *PHAEOLUS SCHWEINITZII* (Fr.) Pat., on Douglas fir, RLG 8073, 8115. Associated with a brown cubical butt and root rot of living conifers. Often on trees with basal fire scars.
130. *POLYPORUS ARCULARIUS* Batsch. ex Fr., on quaking aspen, HHB 1210; on oak, HHB 1068; on hardwood, HHB 996. Associated with a white rot. Common in the Southwest.
131. *POLYPORUS OBTUSUS* Berk., on silverleaf oak, RLG 10818. Associated with a white rot of heartwood of living oaks.
132. *POLYPORUS OSSEUS* Kalchbr., on Douglas fir, RLG 8083; on conifers, MJL 2703. Associated with a white rot.
133. *POLYPORUS VARIUS* Fr., on quaking aspen, HHB 1357. Associated with a white rot.
134. *PORIA BOMBYCINA* (Fr.) Cke., on ponderosa pine, RLG 8034; HHB 1147, 1180. Associated with a brown cubical rot. Common on ponderosa pine logs in the Southwest.
135. *PORIA CARBONICA* Overh., on Douglas fir, RLG 8153. Associated with a brown cubical rot.
136. *PORIA CINERASCENS* (Bres.) Sacc. et Syd., on ponderosa pine, RLG 7398, 7427. Associated with a white rot. Common on ponderosa pine.
137. *PORIA CRASSA* (Karst.) Sacc., on ponderosa pine, RLG 8114. Associated with a brown cubical rot.
138. *PORIA FEROX* Long et Baxter, on alligator juniper (*Juniperus deppeana* Sarg.), RLG 19817, 10822. Associated with a brown cubical rot with abundant white mycelial felts.
139. *PORIA LATITANS* Bourd. et Galz., on ponderosa pine, HHB 1146. Associated with a white rot.
140. *PORIA LENIS* (Karst.) Sacc., on ponderosa pine, RLG 7479, 8029, 8088, 8117; HHB 1271. Associated with a white rot.
141. *PORIA MONTICOLA* Murr., on ponderosa pine, HHB 1185. Associated with a brown cubical rot.
142. *PORIA NIGRESCENS* Bres., on ponderosa pine, RLG 8125. Associated with a white rot.
143. *PORIA ODORA* (Pk.) Sacc., on ponderosa pine, RLG 7405. Associated with a brown cubical rot.
134. *PORIA PANNOCINCTA* (Rom.) Lowe, on quaking aspen, RLG 8050, 8051; HHB 1308; on hardwood, MJL 2729. Associated with a white rot.

145. *PORIA PURPUREA* (Fr.) Cke., on pinyon, HHB 1217; on quaking aspen, RLG 8148. Associated with a white rot.
146. *PORIA RANCIDA* Bres., on white fir, RLG 7987. Associated with a brown cubical rot.
147. *PORIA RETICULATA* (Fr.) Cke., on quaking aspen, HHB 1345, 1365; MJL 2738; on Gamel oak, HHB 1315; on hardwood, MPL 2733. Associated with a white rot. Common on quaking aspen.
148. *PORIA RHODELLA* (Fr.) Cke., on quaking aspen, RLG 8172; MJL 2960. Associated with white rot.
149. *PORIA SANGUIOLENTA* (Alb. et Schw. ex Fr.) Cke., on white fir, RLG 8063. Associated with a white rot, The pore surface is white on fresh specimens but quickly turns blood-red where bruised.
150. *PORIA SINUOSA* (Fr.) Cke., on ponderosa pine, RLG 7476, 8118; on juniper, HHB 1133. Associated with a brown cubical rot.
151. *PORIA SITCHENIS* Baxter, on ponderosa pine, RLG 7496, 8113, 8128. Associated with a brown cubical rot. Common on ponderosa pine logs in the Southwest.
152. *PORIA SUBACIDA* (Pk.) Sacc., on ponderosa pine, RLG 7376; HHB 1289. Associated with a white stringy rot.
153. *PORIA SUBINCARNATA* (Pk.) Murr., on ponderosa pine, RLG 7486. Associated with a white rot. Common on ponderosa pine logs and slash.
154. *PORIA SUBVERMISPORA* Pilát, on ponderosa pine, HHB 1120. 1195. Associated with a brown cubical rot.
155. *PORIA TARDA* (Berk.) Cke., on ponderosa pine, RLG 7449, 7459; on juniper, MJL 2864. Associated with a white rot.
156. *PORIA TENUIS* (Schw.) Cke. var. *PULCHELLA* (Schw.) Lowe, on quaking aspen, RLG 8004, 8149; HHB 1355; MJL 2999. Associated with a white rot. The bright yellow basidiocarps are common on aspen logs and slash.
157. *PORIA XANTHA* (Fr.) Cke., on ponderosa pine, RLG 7455; HHB 1155; on conifer. MJL 2955. Associated with a brown cubical rot and often on charred wood.
158. *PYCNOPORUS CINNABARINUS* (Jacq. ex Fr.) Karst., on narrowleaf cottonwood (*Populus angustifolia* James), RLG 7394. Associated with a white rot.
159. *TRAMETES CAMPESTRIS* Quéll., on Arizona white oak, RLG 10835. Associated with a white rot.
160. *TRAMETES SEPIUM* Berk., on alligator juniper, RLG 10838. Associated with a brown cubical rot.
161. *TYROMYCES BALSAMEUS* (Pk.) Murr., on Douglas fir, RLG 8103, 8163; MJL 2691, 2692; on ponderosa pine. MJL 2902. Associated with a brown cubical rot of fallen conifers and also a root and butt rot of living conifers.
162. *TYROMYCES CAESIUS* (Schrad. ex Fr.) Murr., on ponderosa pine, RLG 8091; on white fir, MJL 2830; on quaking aspen, MJL 3003; on hardwood, MJL 2727. Associated with a brown cubical rot.
163. *TYROMYCES FRAGILIS* (Fr.) Donk, on ponderosa pine, RLG 8126; on white fir. HHB 1072; MJL 2995. Associated with a brown cubical rot. Common on ponderosa pine logs and slash in the Southwest.
164. *TYROMYCES MOLLIS* (Pers. ex Fr.) Kotl. et Pouz., on ponderosa pine, RLG 7402. Associated with a brown cubical rot. Common on ponderosa pine logs and slash.

165. TYROMYCES SUBCARTILAGINEUS (Overh.) Dom., on ponderosa pine, RLG 7450; HHB 1284; on white fir, RLG 8012; MJL 3031; on Douglas fir, RLG 8096. Associated with a brown cubical rot.
166. TYROMYCES IMMITIS (Pk.) Bond., on conifer, MJL 2625. Associated with a brown cubical rot.

SPARASSIDACEAE

(reference: Weir, 1917)

167. SPARASSIS RADICATA Weir, on Douglas fir, RLG 8082; MJL 2887. Associated with a brown cubical root and butt rot of living trees. The coralloid basidiocarps develop from elongated buried sclerotia.

STECCHERINACEAE

(references for *Steccherinum*: Christiansen, 1960; Miller and Boyle, 1943)

168. STECCHERINUM CILIOLATUM (Berk. et Curt.) Gilbertson, on white fir, MJL 3610; on quaking aspen, RLG 8061. Associated with a white rot.
169. STECCHERINUM FIMBRIATUM (Fr.) J. Erikss., on white fir, RLG 7996; HHB 1249; on quaking aspen, HHB 1216, 1309, 1361. Associated with a white rot

STEREACEAE

(references for *Stereum*: Burt, 1920; Lentz, 1955)

170. STEREUM ALBOBADIUM (Schw. ex Fr.) Fr., on Gambel oak, RLG 7509; HHB 1322. Associated with a white rot of dead branches on living trees.
171. STEREUM SANGUINOLENTUM (Alb. et Schw. ex Fr.) Fr., on white fir. MJL 2997. Associated with a white rot and common on fir logs.
172. VELUTICEPS BERKELEYI (Berk. et Curt.) Cke., on ponderosa pine, RLG 8039; MJL 2825. Associated with a brown cubical rot.

THELEPHORACEAE S. STR.

(references: Larsen, 1972, 1974)

173. PSEUDOTOMENTELLA TRISTIS (Karst.) M. J. Larsen, on white fir. MJL 3028; on unknown wood, MJL 2784.
174. TOMENTELLA ATROVIOLACEA Litsch., on unknown wood, MJL 2721.
175. TOMENTELLA BRESADOLAE (Brinkm. in Bres.) Bourd. et Galz., on white fir, MJL 3020; on ponderosa pine, MJL 2903; on unknown wood, MJL 2897.
176. TOMENTELLA BRUNNEOFIRMA M. J. Larsen, on unknown wood, MJL 2764.
177. TOMENTELLA COERULEA (Bres.) Hoehn. et Litsch., on Gambel oak. RLG 7508.
178. TOMENTELLA FERRUGINEA (Pers.) Pat., on ponderosa pine, RLG 7434; HHB 1110, 1117; on juniper, MJL 2859; on white fir, HHB 1318; MJL 2710, 2785; on conifer, MJL 2695, 2700; on quaking aspen, HHB 1241; MJL 2772, 2773, 2775, 2787; on oak, RLG 7401; MJL 2674; on maple, MJL 2844; on hardwood, MJL 2672; on unknown wood, MJL 2708, 2718, 2890, 2853.
179. TOMENTELLA FERRUGINELLA Bourd. et Galz., on quaking aspen, HHB 1334.
180. TOMENTELLA LATERITIA Pat. On ponderosa pine, HHB 1268; MJL 2808, 2809, 2827; on Douglas fir, RLG 804.0; on quaking aspen, MJL 2774, 2789; on unknown wood, MJL 2827.

181. TOMENTELLA MOLYBDAEA Bourd. et Galz., on white fir, MJL 2807.
182. TOMENTELLA MONTANENSIS M. J. Larsen, on quaking aspen, MJL 2745.
183. TOMENTELLA NEOBOURDOTII M. J. Larsen, on quaking aspen, HHB 1360.
184. TOMENTELLA PALLIDOFULVA (Pk.) Litsch., on ponderosa pine, RLG 7453; MJL 2862; on white fir, MJL 2978, 3016; on quaking aspen, MJL 2777; on hardwood, MJL 2752, 2753, 2759, 2761; on unknown wood, MJL 2760.
185. TOMENTELLA PILATII Litsch., on quaking aspen, MJL 2719.
186. TOMENTELLA PILOSA (Burt) Bourd. et Galz., on Douglas fir, RLG 7418; on quaking aspen, MJL 3002.
187. TOMENTELLA RAMOSISSIMA (Berk. et Curt.) Wakef., on ponderosa pine, RLG 8036; MJL 2932.
188. TOMENTELLA SUBLILACINA (Ell. et Holw.) Wakef., on ponderosa pine, RLG 7392; MJL 2819.
189. TOMENTELLA UMBRINELLA Bourd. et Galz., on ponderosa pine, RLG 7386; on conifer, MJL 2814.
190. TOMENTELLA VIRIDIS (Berk.) G. H. Cunn., on ponderosa pine, RLG 7461; MJL 2810, 2869; on white fir, RLG 7981; HHB 1306; on conifer, MJL 2616, 2622, 2631, 2632, 2633, 2638, 2641, 2693, 2697; on maple, RLG 7417.

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