Species Described in *Clitocybe* by C. H. Peck and W. A. Murrill

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Abstract. — The results of study on 56 holotypes of taxa which C. H. Peck described in *Clitocybe* or *Agaricus* (*Clitocybe*), and 59 holotypes of W. A. Murrill, described as *Clitocybe*, are presented. A majority is retained in *Clitocybe*, while the remainder belong to other genera of the Tricholomataceae or the Rhodophyllaceae.

Introduction

The species collected and described by C. H. Peck and W. A. Murrill in North America form the basis for the study of many groups of fungi in the Ascomycetes, Deuteromycetes and Basidiomycetes. These pioneers' contribution to knowledge of the agarics is very important, and is especially critical when dealing with the genus *Clitocybe*. Many of the taxa which they described in *Clitocybe* have been found again by more recent investigators. Some of course are now placed in other genera, or have been proven to be identical with species described first in Europe by Fries.

The following studies present the species described under *Clitocybe* in order to provide microscopic data of the type specimens for those who do not have convenient access to them. Another purpose is to diminish the continued sampling of the type material. Many collections have numerous specimens to be sure, but other species are poorly represented even now and will be virtually useless to future students.

I am indebted to Dr. C. Rogerson, New York Botanical Garden, Dr. J. Haines and the late S. J. Smith of the New York State Museum, and Dr. J. Kimbrough, Department of Botany, University of Florida, Gainesville, for their excellent and friendly cooperation in permitting me to examine the type collections. My gratitude is also expressed to Dr. T. Baroni for his help with *Rhodocybe*, and to Dr. R. Halling where *Collybia* was concerned. Dr. A. H. Smith was instrumental in arranging my first visits to New York and Albany, and his continued interest and valuable comments have greatly aided my efforts with *Clitocybe* and relatives.

Descriptions

adirondackensis: *Agaricus adirondackensis* PECK, New York State Cabinet Rep. 23: 77. (for 1869) 1872.

Holotype: Adirondack Mts., North Elba, Essex Co., New York, August. Consisting of 22 specimens, NYS. (watercolor by PECK).

Spores 4.5—6.5×3.3—4 μm, ellipsoid to obovoid or pyriform in face view, sublacrymoid to lacrymoid in side view, smooth, inamyloid. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 1.5—6 μm diam, also with frequent vesiculose cells, 16—25 μm diam, mostly globose to subglobose or pyriform, sometimes ellipsoid or spindle shape or clavate, walls smooth, contents refractive. Clamp connections present.

Conclusion: = *Clitocybe hydrogramma* (FRIES) KUMMER, Führer Pilzkunde, p. 122. 1871.

alachuana: *Clitocybe alachuana* MURRILL, Proc. Florida Acad. Sci. 7: 107. 1944.

Holotype: Prairie Creek Hammock, Alachua Co., Florida, 15 July 1938. Coll. WEST, ARNOLD and MURRILL (F, 17903), FLAS.

Spores 5.5—6×5 μm, subglobose, slightly angular at times, undulate pustulate or nearly smooth, inamyloid, walls cyanophilous. Cystidia not differentiated. Pileus cutis brownish yellow in KOH, pigment encrusted; hyphae cylindric, 2—5 μm diam, context hyphae cylindric, 2—5.5 μm diam, walls smooth or encrusted with pigment. Hymenophoral trama of interwoven hyphae, 2.5—5 μm diam, walls smooth or encrusted with pigment. Clamp connections absent.

Conclusion: = *Rhodocybe mundula* (PECK) SINGER, Lilloa 22: 609. (1949) 1951.

albicastaneus: *Clitocybe albicastaneus* MURRILL, Mycologia 5: 206. 1913.

Holotype: Searsville Lake, San Mateo Co., California, 28 Dec 1902. Coll. MCMURPHY, n. 61. Consisting of 6 specimens, NY.

Conclusion: = *Hygrophorus albicastaneus* (MURR.) HESLER & SMITH, North American Species of *Hygrophorus*, p. 327. 1963.

albidula: Clitocybe albidula PECK, New York State Mus. Rep. 46: 23. (for 1892) 1894.

Holotype: Delmar, Albany Co., New York, September, 1892. Consisting of 9 specimens, NYS.

Spores 5—6×3—4 μm, ellipsoid, smooth, inamyloid. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 3—5 μm diam, end cells protruding at times. Hymenophoral trama of undulate-subparallel hyphae.

Conclusion: An acceptable species in *Clitocybe*, section Candicantes, distinguished by grayish brown pileus in combination with whitish lamellae, a farinaceous odor and small spores.

albiformis: Clitocybe albiformis MURRILL, Mycologia 5: 206. 1913.

Holotype: Searsville Lake, near Stanford University, San Mateo Co., California, 6 January 1903. Coll. MCMURPHY, n. 3. Consisting of 3 pilei and 5 stipes, NY.

Spores 6—7×4—5 μm, ellipsoid, verruculose, verruculae strongly amyloid. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of interwoven cylindric hyphae, 1—4 μm diam, end cells protruding at times. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Leucopaxillus paradoxus* (COSTANTIN & DUFOUR) BOURSIER, Bull. Soc. Mycol. France 41: 391. 1925.

anisarius: Agaricus anisarius PECK, New York State Mus. Rep. 32: 26. (for 1878) 1880.

Holotype: Gansevoort, Saratoga Co., New York. August. Consisting of 22 specimens, NYS.

Spores 5—6.5×3.5—4.5 μm, ellipsoid, smooth, inamyloid cyanophily uncertain (spores rare in mount). Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 1—3.5 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Clitocybe odora* (FRIES) KUMMER, Führer Pilzkunde, p. 121. 1871.

apertus: Agaricus apertus PECK, New York State Mus. Rep. 30: 38. (for 1876) 1878.

Holotype: Maryland, Otsego Co., New York. September. Consisting of 34 specimens, NYS.

Spores 4—5(—6)×2—3 μm, ellipsoid, smooth, weakly amyloid. Cystidia not differentiated. Pileus pale yellow in KOH; cutis consisting of cylindric hyphae 3—5.5 μm diam, end cells protruding at times. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: an acceptable species (*Clitocybe* section Candicantes).

atrialba: Clitocybe atrialba MURRILL, Mycologia 5: 207. 1913.

Holotype: Seattle, King Co., Washington, 20 October—1 November 1911. MURRILL n. 259. Consisting of 3 specimens, NY.

Spores 10—12×7—9 µm, subglobose to broadly ellipsoid or ovoid, smooth, amyloid. Basidia 2-spored, 30—42×6—8.5 µm. Cystidia absent on lamellae. Pileus: pilocystidia abundant, shape variable (cylindric, clavate, fusoid or irregularly inflated), 5.5—15.5 µm diam, contents brown in KOH; context hyaline in KOH, consisting of cylindric or inflated hyphae, 3—8.5(—19) µm diam. Hymenophoral trama of interwoven to subparallel hyphae. Clamp connections present. Oleiferous hyphae present.

Conclusion: = *Clitocybula atrialba* (Murrill) Singer, Sydowia 15: 53. (1961) 1962.

australis: Clitocybe australis Murrill, Lloydia 7: 303. 1944.

Holotype: Gainesville, Alachua Co., Florida, 6 October 1943 (F, 20118). Consisting of 10 specimens, FLAS.

Spores 6—7×3.5—4.5 µm, mostly obovoid, sometimes ellipsoid in face view, sublacrymoid or lacrymoid in side view, smooth, inamyloid. Cystidia not differentiated. Pileus yellowish in KOH; cutis consisting of cylindric hyphae, 2—5 µm diam, walls than a finely encrusted or thickened somewhat. Hymenophoral trama of undulate-subparallel hyphae. Clamps connections present.

Conclusion: = *Clitocybe gibba* (Fries) Kummer, Führer Pilzkunde, p. 123. 1871.

azalearum: Clitocybe azalearum Murrill, Lloydia 5: 137. 1942.

Holotype: Gainesville, Alachua Co., Florida, 13 July 1939 (F, 19732). Consisting of about 4 specimens, FLAS.

Spores 5.5—7.5×4—5 µm, ellipsoid in face view, ellipsoid or ovoid in side view, angled at times, verruculose at times, inamyloid, walls cyanophilous. Cystidia not differentiated. Pileus orangish in KOH, pigment encrusted and in slightly thickened walls; cutis consisting of cylindric hyphae, 2,5—3.5 µm diam, end cells protruding occasionally; context of cylindric hyphae, 2.5—7.5 µm diam, smooth or rarely with encrustations. Hymenophoral trama orangish in KOH; consisting of parallel hyphae, 2—4.5 µm diam, finely encrusted and rarely walls also thickened. Clamp connections absent.

Conclusion: = *Rhodocybe azalearum* (Murrill) Baroni, A Revision of the Genus *Rhodocybe*. Beih. Nova Hedwigia 67: 44. 1981.

basidiosa: Clitocybe basidiosa Peck, New York State Mus. Bull. 1 (2): 5 (Rep. for 1883) 1887.

Holotype: Sandlake, Rensselaer Co., New York. August. Consisting of 6 specimens, NYS.

Spores 4.5—5.5(—6)×4—5 µm, subglobose or globose, smooth, inamyloid. Basidia: 30—40×4.5—6 µm, 4-spored, sterigmata

6—8 μm long, falcate. Cystidia not differentiated. Pileus: cutis consisting of cylindric hyphae, 1—3 μm diam, walls slightly thickened, surface hyphae loosely interwoven but not gelatinous. Hymenophoral trama of interwoven hyphae. Clamp connections present.

Conclusion: = *Hygrophorus basidiosus* (PECK) PECK, New York State Mus. Bull. 116: 57. (Rep. for 1906) 1907.

biformis: Clitocybe biformis PECK, New York State Mus. Bull. 150: 25. (Rep for 1910) 1911.

Holotype: North Elba, Essex Co., New York. September. Consisting of 36 specimens, NYS.

Spores 4—5×3.5—4.2 μm, subglobose to ovoid, verruculose, wall thickened, ornamentation cyanophilous, inamyloid. Cystidia not differentiated. Pileus yellowish in KOH, pigment intracellular and dilute; cutis consisting of cylindric hyphae, 2—5 μm diam. Hymenophoral trama of interwoven to undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Clitocybe gilva* (FRIES) KUMMER, Führer Pilzkunde, p. 124. 1871.

broadwayi: Clitocybe broadwayi MURRILL, Mycologia 3: 192. 1911.

Holotype: Tanteen, St. Georges, Grenada, West Indies, 23 August 1905. Coll. BROADWAY. On ground in cocoa plantation. Consisting of 35+specimens in 3 boxes, NY.

Spores 5—6.6(—7)×3.5—4(—4.5) μm, with verruculae up to 0.5 μm tall, ellipsoid, inamyloid, ornamentation cyanophilous, inner wall sometimes cyanophilous, walls slightly thickened. Basidia 20—27×5.5—8 μm, without siderophilous granules. Cystidia not differentiated. Pileus: cutis consisting of cylindric hyphae, 1.5—5 μm diam, walls smooth and thin; context of broad cylindric or slightly inflated hyphae (5—)11—20 μm diam, cells often short, walls thickened at times. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: an acceptable species (*Clitocybe*, section Verruculosae).

brunnescens: Clitocybe brunnescens MURRILL, Mycologia 5: 208. 1913.

Holotype: near Seattle, King Co., Washington, 20 October—1 November 1911, MURRILL n. 699. Consisting of 7 specimens, NY.

Spores 3—3.5 μm diam, globose, smooth, inamyloid. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 2.5—5 μm diam, scattered end cells protruding. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Clitocybe ditopus* (Fries) Gillet, Les Hyménomycètes, p. 166. 1874.

caespitosa: Clitocybe caespitosa Peck, New York State Mus. Rep. 41: 61 (for 1887) 1888.

Holotype: Catskill Mts., Ulster Co., New York. September. Consisting of 10 specimens, NYS.

Spores (4.5—)5—7(—9)×3.3—4.6 μm, ellipsoid to oblong in face view, sublacrymoid in side view, smooth, inamyloid. Basidia 2- and 4-spored, 20—30×4—6.5 μm, sterigmata germinated at times. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 1—3.5 μm diam, frequent vesiculose cells present, 16—22 μm diam, globose to ovoid, walls smooth, contents refractive. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = a luxuriant form of *Clitocybe hydrogramma* (Fries) Kummer, Führer Pilzkunde, p. 122. 1871.

carnosior: Agaricus carnosior Peck, New York State Cab. Rep. 23: 76. (for 1869) 1872.

Holotype: West Albany, Albany Co., New York. September. Consisting of 7 specimens, NYS.

Spores 6.5—8×4—4.5 μm, ellipsoid, smooth, inamyloid. Cystidia not differentiated. Pileus: cutis consisting of cylindric hyphae, 1—2.5 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Clitocybe clavipes* (Fries) Kummer, Führer Pilzkunde, p. 124, 1871.

centralis: Clitocybe centralis Peck, New York State Mus. Rep. 53: 841. (for 1899) 1901.

Lectotype: Warrensburg, Warren Co., New York. Consisting of 20 specimens, NYS. (watercolor by Peck).

Spores (4.5—)5—6.5×3—3.5 μm, ellipsoid, smooth, inamyloid. Cystidia not differentiated. Pileus: cutis consisting of cylindric hyphae, 1—2.5 μm diam, occasionally protruding in fascicles. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

At NYS, two collections are present in a packet labeled as "TYPE": one from Warrensburg, consisting of 20 specimens plus fragments, the other from Westport, Essex Co., consisting of 24 specimens. From Peck's field notebook (n. 22, p. 47), it is evident that the original description published came from his notes on the Warrensburg material. Another collection in the herbarium, labeled as "syntype", from Hague, Warren Co., has 8 specimens.

Conclusion: = *Clitocybe albidula* PECK, New York State Mus. Rep. 46: 23. 1894.

coloradensis: Clitocybe coloradensis MURRILL, North Amer. Fl. 9: 410. 1916.

Holotype: Boulder Park, 9000', Tolland, Gripin Co., Colorado, 11 July 1914. Coll. OVERHOLTS, n. 1890. Consisting of 2 specimens, NY.

Spores 6.5—8.5×4—5 μm, ellipsoid, smooth, inamyloid. (Other microscopic structures could not be determined due to poor drying and reviving.)

Conclusion: The field characters as presented by MURRILL make *C. coloradensis* seem distinct from the other large species known in section Clitocybe, but corraborative collections are needed in order to determine the other microscopic characters.

compressipes: Agaricus compressipes PECK, New York State Mus. Rep. 33: 18. (for 1879) 1883.

Holotype: Albany, Albany Co., New York, July. Consisting of 4 specimens on cards, NYS. Type box also contains numerous specimens from Karner, New York, collected later.

Spores (4.5—)6.5—8×(3—)4—5 μm, ellipsoid, smooth, amyloid. Basidia 23—40×5—8.5 μm, mostly 4-spored, sometimes 1- or 2-spored. Cheilocystidia present, filamentous, ±2 μm diam, projecting 19—31 μm beyond lamella edge, hyaline, smooth. Pileus faintly yellowish in KOH, encrusting pigments absent; cutis subgelatinous in KOH, surface hyphae up to 1 μm diam, 2—4.5 μm diam below, cylindric. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe*, section Candicantes).

concaviformis: Clitocybe concaviformis MURRILL, Proc. Florida Acad. Sci. 7: 107. 1944.

Holotype: Planera Hammock, Alachua Co., Florida, 16 July 1938. Coll. WEST, ARNOLD and MURRILL (F, 17889). Consisting of 1 specimen, FLAS.

Spores absent. Basidia immature, no sterigmata found, basidioles 28—33×5—8.5 μm. Lamellar cystidia absent. Pileus: cutis brown in KOH; consisting of pilocysts, interwoven or upright, pigment intracellular, 16—55 μm long, 6—12 μm diam, usually clavate and pedicellate, walls often thickened; context hyaline, hyphae cylindric, 2—4 μm diam. Hymenophoral trama of interwoven hyphae. Clamp connections present.

Conclusion: a *Mycena* or *Clitocybula* but placement impossible because of the absence of spores.

connexus: Agaricus connexus Peck, Buffalo Soc. Nat. Sci. Bull. 1: 45. 1873.

Holotype: Croghan, Lewis Co., New York, September. Consisting of 9 specimens, NYS. (watercolor by Peck).

Spores 6.5—8×4—5 μm, ellipsoid, smooth, inamyloid, some with cyanophilous walls. Pileus hyaline in KOH; cutis hyphae cylindric, 1—4 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = a pale form of *Clitocybe odora* (Fries) Kummer, Führer Pilzkunde, p. 121. 1871.

cortinarioides: Clitocybe cortinarioides Murrill, Lloydia 9: 315. 1946.

Holotype: Gainesville, Alachua Co., Florida, 1 January 1940 (F, 20040). Consisting of 1 specimen, FLAS.

Spores (5—)6—7.5×3—4 μm, ellipsoid, verruculose or verrucose, inamyloid. Basidia 19—29×6—7.5 μm, 4-spored. Cystidia not differentiated. Pileus faintly yellowish in KOH; cutis consisting of cylindric hyphae, 2.5—4 μm diam., appearing ± gelatinous in KOH. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = a form of *Clitocybe tarda* Peck, Bull. Torrey Bot. Club 24: 140. 1897.

cuticolor: Clitocybe cuticolor Murrill, Mycologia 5: 208. 1913.

Holotype: near Seattle, King Co., Washington, 20 October—1 November 1911, Murrill, n. 532. Consisting of 1 specimen, NY.

Spores 6—7×4—4.5 μm, ellipsoid, verruculose, inamyloid. Basidia 21—31×6—7 μm, 4-spored. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of mostly cylindric hyphae, 1—4 μm diam, gelatinous appearing in KOH. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = a member of *Clitocybe* section Verruculosae, but corroborative specimens needed for placement.

dealbata var. *deformata: Clitocybe dealbata* var. *deformata* Peck, New York State Mus. Bull. 67: 35. (for 1902) 1903.

Holotype: Newark, Wayne Co., New York, March, 1902. Coll. Clark and Williams. Consisting of many specimens, but badly damaged by insects, NYS.

Spores (3—)3.5—5 μm, ellipsoid or broadly ellipsoid, smooth, inamyloid. Basidia 15—19×3.5—5 μm, 4-spored. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 2.5—5 μm diam, walls often slightly thickened, appearing ±

gelatinous in KOH. Hymenophoral trama of subparallel hyphae. Clamp connections present.

Conclusion: = *Clitocybe augeana* (MONTAGNE) SACCARDO, Syll. Fung. 5: 157. 1887.

dealbata var. *sudorifica: Clitocybe dealbata* var. *sudorifica* PECK, New York State Mus. Bull. 150: 43. (for 1910) 1911.

Holotype: Saratoga Springs, Saratoga Co., New York, November. Collected by HOWLAND. Consisting of 50+specimens, NYS.

Spores 4.5—5×2.5—3 μm, ellipsoid, smooth, inamyloid. Basidia ±20×2—5 μm, 4-spored. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 1—3 μm. diam, surface appearing ± gelatinous in KOH. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Clitocybe dealbata* ssp. *sudorifica* (PECK) BIGELOW, Beih. Nova Hedwigia 72: 120. 1982.

earlei: Clitocybe earlei MURRILL, Mycologia 7: 261. 1915.

Holotype: West Park, Ulster Co., New York, 6. August 1903. Coll. EARLE 1753. Consisting of 3 specimens (damaged by insects), NY.

Spores 7—9×4—5.5 μm, ellipsoid to oblong, punctate-verruculose, ornamentation amyloid. Basidia 42—54×5.5—8 μm, 4-spored. Cheilocystidia and pleurocystidia present, numerous on some lamellae, absent on others, fusoid-ventricose, 34—71×8.5—19 μm, sometimes capitate, smooth, hyaline. Pileus brownish in KOH, pigment intracellular, hyphae cylindric, 2.5—5.5 μm diam; context hyphae cylindric or somewhat inflated, 4—12 μm diam. Hymenophoral trama of subparallel hyphae. Clamp connections absent. Oleiferous hyphae present.

Conclusion: = *Melanoleuca earlei* (MURRILL) SINGER, Lloydia 5: 121. 1942.

eccentrica: Clitocybe eccentrica PECK, Bull. Torrey Bot. Club, 25: 321. 1898.

Holotype: near South Dunmore, Addison Co. (?), Vermont, 17 August 1897. Coll. BURT. Consisting of 8 specimens, NYS.

Spores 5—6.5(—8.5)×2.5—4 μm, pyriform to obovoid in face view, ellipsoid or sublacrymoid in side view, smooth, inamyloid. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 2—4 μm diam. Hymenophoral trama of interwoven hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe*, section Candicantes).

ectypoides: *Agaricus ectypoides* PECK, New York State Mus. Rep. 24: 61. (for 1870) 1872.

Lectotype: Sandlake, Rensselaer Co., New York. Consisting of ca. 8 specimens but badly damaged by insects, NYS.

Spores 6.5—9×4—5 μm, ellipsoid, smooth, amyloid. Basidia 25—33×5—7 μm, 4-spored. Cystidia not differentiated. Pileus brownish in KOH, pigment encrusted and in thickened walls; cutis hyphae cylindric, 2.5—6.5 μm diam, often protruding in fascicles. Hymenophoral trama of interwoven to somewhat undulate hyphae. Clamp connections present.

According to PECK's field notebook (n. 2, p. 178 and 195) the published description is derived from two collections, and two localities, Catskill Mts. and Sandlake, are published as well. The type collection has both collections: the Catskill Mt. collection is separated by a newsprint packet, and by implication, the remaining specimens, mounted on cards, must be from Sandlake. Due to insect damage, none of the specimens are in good condition, although it was possible to observe a number of critical features. All specimens appear to be of the same species.

Conclusion: = *Omphalina ectypoides* (PECK) BIGELOW, comb. nov. (Basionym: *Agaricus ectypoides* PECK, New York State Mus. Rep. 24: 61. 1872.)

elephantina: Clitocybe elephantina MURRILL, North Amer. Fl. 9: 405. 1916.

Holotype: La Porte, La Porte Co., Indiana, 27 June 1915. Coll. CLORE. Consisting of 2 clusters of ±9 specimens, NY.

Spores 5—7 μm diam, globose, smooth, inamyloid. Basidia 26—36×6.5—8(—9) μm, 4-spored, sterigmata ±5 μm long, stout and falcate, siderophilous granules present. Cystidia not differentiated. Pileus dingy yellowish in KOH, pigment intracellular; cutis hyphae cylindric, 3—4.5 μm diam, walls thin or sinuous thickened. Hymenophoral trama of parallel hyphae. Clamp connections present.

Conclusion: = *Lyophyllum decastes* (FRIES) SINGER, Lilloa 22: 165. (1949) 1951.

farinacea: Clitocybe farinacea MURRILL, North Amer. Fl. 9: 401. 1916.

Holotype: New York Botanical Garden, Bronx, Bronx Co., New York, 10 September 1911. Consisting of 8—10 specimens (watercolor by MURRILL), NY.

Spores 5—8×4—5 μm, ellipsoid, smooth, amyloid. Basidia 22—34×6.5—8.5 μm, 1-, 2-, 4-spored, congophilous granules present at times. Filamentous cheilocystidia present on some lamellae,

1.5—2 μm diam, protruding up to 61 μm. Pileus hyaline in KOH, very finely encrusted pigments present but rare; cutis subgelatinous appearing in KOH, hyphae 1—2.5 μm diam; context hyphae mostly cylindric, 4.5—9 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe* section Candicantes).

fellea: Clitocybe fellea PECK, New York State Mus. Rep. 51: 284. (for 1897) 1898.

Holotype: Gansevoort, Saratoga Co., New York, July. Consisting of 20 specimens, NYS.

Spores 6.5—9×4.5—6 μm, broadly ellipsoid, smooth, inamyloid. Basidia 20—33×6—8 μm, 4-spored. Cystidia not differentiated. Pileus brownish in KOH, pigment encrusted and in somewhat thickened walls; cutis hyphae cylindric or inflated, 3—7 μm diam; context hyphae cylindric or inflated, 2.5—10 μm diam, mostly with smooth but somewhat thickened walls. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: *Clitocybe fellea* is accepted as a member of section Pyxidatae, but there is a possibility that the species is only an extreme of a variable species often described in *Collybia*. The taxa concerned are: *Collybia cremoraceus* (PECK), PECK, *Collybia clusilis* (FRIES) KARSTEN, *Collybia esculentoides* (PECK) PECK, *Collybia ochraleuca* PECK, *Collybia cremimellea* (MURR.) MURRILL, *Collybia squamiger* (MURR.) MURRILL. *Clitocybe vulgaris* SINGER is definitely the same as *Clitocybe fellea*, and *Omphalina mellea* MURRILL may be.

The placement of the taxa in different genera by various investigators testifies to either two closely related species, or one which is intermediate between *Clitocybe* and *Collybia*. *Agaricus clusilis* FRIES has clear priority for the selection of the proper epithet should all the taxa prove to be of one species.

flavidellus: Agaricus flavidellus PECK, New York State Mus. Rep. 30: 38. (for 1876) 1878.

Holotype: Maryland, Otsego Co., New York, September. Consisting of ca. 8 specimens, NYS.

Spores 4—5×2.5—3.5 μm, narrowly ellipsoid to oblong, smooth, inamyloid. Cystidia not differentiated. Pileus cutis of narrow cylindric hyphae, 1.5—3.5 μm, context of mostly cylindric hyphae, 2.5—11 μm. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe* section Candicantes).

floridana: Clitocybe floridana MURRILL, Lloydia 7: 327. 1944. (*Monadelphus* loc. cit. p. 308).

Holotype: Kelley's Hammock, ten miles NW of Gainesville, Alachua Co., Florida, 19 July 1938 (F, 17905). Consisting of 6—8 specimens, FLAS.

Spores 4.5×3 μm, ellipsoid, smooth, inamyloid (rare in sections). Cheilocystidia and pleurocystidia abundant, ventricose, walls thick and refractive (up to 3 μm thick), 40—53 μm long, apex 4—7 μm diam, 10—12 μm at midportion, contents yellow in Melzer's reagent. Pileus section brownish yellow in KOH, texture tough; hyphae throughout mostly cylindric, 3—7.5 μm diam, thin walled or thick walled (walls ±2 μm thick). Hymenophoral trama of interwoven hyphae. Clamp connections present.

Conclusion: = *Panus* sp.

fumosa var. *brevipes: Clitocybe fumosa* var. *brevipes* PECK, New York State Mus. Bull. 157: 75. (for 1911) 1912.

Holotype: Canadaigua, Ontario Co., New York, October, 1911. Coll. WEBSTER. Consisting of 7 specimens, NYS.

Spores 4.5—6.5×4.5—6 μm, globose to subglobose, smooth, inamyloid. Basidia 26—34×6—8 μm, 2- or 4-spored, siderophilous granules present. Cystidia not differentiated. Pileus: cutis thick, of narrow cylindric hyphae, 2—5 μm diam; context hyphae cylindric or inflated, 2—14.5(—23) μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Lyophyllum fumosum* (FRIES) ORTON, Trans. Brit. Mycol. Soc. 43: 178. 1960.

fuscipes: Clitocybe fuscipes PECK, New York State Mus. Rep. 44: 17. (for 1890) 1891.

Holotype: Carrollton, Cattaraugus Co., New York, September. Consisting of 2 caps (±) and 4 stipes, NYS.

Spores 6—8×4.5—6.5 μm, ellipsoid, smooth, inamyloid. Basidia 23—43×6—8.5 μm, 4-spored. Cystidia not differentiated. Pileus yellowish in KOH, cutis of cylindric hyphae, 2—3.5 μm diam; context of inflated hyphae mostly, 3—9 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe* section Candicantes).

gerardianus: Agaricus gerardianus PECK, Buffalo Soc. Nat. Sci. Bull. 1: 46. 1873.

Holotype: New Palty, Ulster Co., New York, June (the Sandlake collection cited in the original description is missing). Consisting of 3—4 specimens, NYS.

Spores (7—)8—10(—11)×3.5—4.5 μm, ellipsoid to subfusoid in face view, inequilateral in side view, smooth, inamyloid. Basidia: 24—35×6—7 μm, 4-spored. Cystidia not differentiated. Pileus brown in KOH, pigment coarsely encrusted; cutis of mostly cylindric hyphae, 5—10 μm diam; context hyphae cylindric or slightly inflated, 5—11 μm diam, smooth or encrusted. Hymenophoral trama of interwoven hyphae, cylindric, 4—7 μm diam, encrusted or smooth. Clamp connections present. Oleiferous hyphae scattered in context and gill trama, brownish or yellowish, branched at times.

Conclusion: = an acceptable species (*Clitocybe* section Omphalinae).

griseifolia: Clitocybe griseifolia MURRILL, Mycologia 5: 208. 1913.

Holotype: near Seattle, King Co., Washington, 1 Oktober 1911, MURRILL 276. Consisting of 2 specimens, NY.

Spores 4.5—7×3—3.5 μm, ellipsoid, smooth, inamyloid, some with cyanophilous walls. Cystidia not differentiated. Pileus hyaline in KOH; surface appearing dry in KOH, cutis of cylindric hyphae 4—7 μm diam, a few end cells protruding, scattered; context hyphae cylindric or slightly inflated, 3—11.5 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections absent.

Conclusion: = an acceptable species (*Clitocybe* section Clitocybe).

harperi: Clitocybe harperi MURRILL, Mycologia 5: 209. 1913.

Holotype: Golden Gate Park, San Francisco, San Francisco Co., California, 22 February 1911, HARPER n. 57. Consisting of 2—3 specimens (damaged by insects), NY.

Spores 5—6×2.5—3.5 μm, ellipsoid or ovoid, smooth, inamyloid, walls mostly cyanophilous. Cystidia not differentiated. Pileus: cutis thick, of narrow cylindric hyphae, 4—6 μm diam; context of cylindric or somewhat inflated hyphae. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections absent. Oleiferous hyphae present but scattered.

Conclusion: = an acceptable species (*Clitocybe* section Clitocybe).

hoffmani: Agaricus hoffmani PECK, New York State Mus. Rep. 24: 60. (for 1870) 1872.

Holotype: Greig, Lewis Co., New York, September. Consisting of 3 specimens, NYS.

Spores 10—14×4—6 µm, broadly ellipsoid in face view, oblong or narrowly ellipsoid in side view, smooth, inamyloid. Basidia 28—41(—51)×5—7 µm, 4-spored, sterigmata long and slender (±6.5 µm long). Cystidia not differentiated. Pileus faintly yellowish in KOH, pigment intracellular and very dilute; cutis of cylindric or slightly inflated hyphae, 2—10 µm diam, end cells protruding; context of hyphae like those of cutis. Hymenophoral trama of interwoven hyphae. Clamp connections absent.

Conclusion: = *Omphalina hoffmani* (PECK) BIGELOW, Mycologia 62: 18. 1970.

hondensis: *Clitocybe hondensis* MURRILL, Mycologia 5: 209. 1913.

Holotype: La Honda, Santa Cruz Co., California, 25 November 1911, MURRILL, n. 1274. Consisting of 1 specimen (damaged by insects), NY.

Spores 6—8.5×4—5.5 µm, ellipsoid or ovoid, angular and sometimes also appearing roughened, inamyloid. Cystidia not differentiated. Pileus orangish in KOH, some hyphae very finely encrusted, pigment also intracellular but dilute; cutis of cylindric or slightly inflated hyphae 4—7.5 µm diam, scattered end cells protruding. Hymenophoral trama of subparallel hyphae. Clamp connections absent.

Conclusion: = *Rhodocybe hondensis* (MURRILL) BARONI, A Revision of the Genus *Rhodocybe*. Beih. Nova Hedwigia 67: 92. 1981.

incrustata: Clitocybe incrustata MURRILL, Mycologia 3: 191. 1911.

Holotype: Chester Vale, Jamaica, West Indies, 23 December 1908, MURRILL, n. 298 (watercolor). Consisting of 1 specimen, NY.

Spores 8—9×6—6.5 µm, ellipsoid, smooth, inamyloid. Basidia 40—55×6—7.5 µm, 4-spored, sterigmata stout and long (up to 3 µm broad at base, up to 7.5 µm long). Cystidia: leptocystidia present, ± cylindric, contents granular, walls appearing papillate in places. Pileus: cutis subgelatinous appearing in KOH, hyphae cylindric, 1—2.5 µm diam, some with short digitate branches (Rameales-structure); context hyphae cylindric, 1—6 µm diam. Hymenophoral trama of interwoven hyphae. Clamp connections present.

Conclusion: = *Marasmius* (ss. lat.) sp., or *Neoclitocybe* sp.

lactariiformis: Clitocybe lactariiformis MURRILL, North Amer. Fl. 9: 409. 1916.

Holotype: Unaka Springs, near Erwin, Unicoi Co., Tennessee, 18—24 August 1904. Consisting of 4 specimens, NY.

Spores 4.5—6×2—3(—3.5) µm, ellipsoid, smooth, inamyloid. Cystidia not differentiated on lamellae. Pileus: surface layer a turf of numerous cystidioid end cells, cylindric to subclavate, 5—13 µm diam, contents pale fuliginous in KOH. Hymenophoral trama of interwoven to subparallel hyphae. Clamp connections present.

Conclusion: = *Clitocybe trullaeformis* (FRIES) QUÉLET, Champ. Jura et Vosges, suppl. 11: 389. 1875.

leptolomus: *Agaricus leptolomus* PECK, New York State Mus. Rep. 32: 26. (for 1878) 1880.

Holotype: Indian Lake, Adirondack Mts., Hamilton Co., New York, August. Consisting of 5 specimens, NYS.

Spores 5—7.5×3—4 µm, ellipsoid, smooth, inamyloid. Cystidia not differentiated. Pileus: surface appearing somewhat gelatinous in KOH, cutis of cylindric hyphae, 2—3.5 µm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe* section Candicantes).

maculosus: Agaricus maculosus PECK, Buffalo Soc. Nat. Sci. Bull. 1: 45. 1873.

Holotype: Croghan, Lewis Co., New York, September. Consisting of 19 specimens, NYS.

Spores 4—4.5 µm diam or 4.5—5×4—4.5 µm, globose or subglobose, verruculose, inamyloid, ornamentation cyanophilous. Basidia 20—36×4—6.5 µm, 2- or 4-spored. Cystidia not differentiated. Pileus: cutis of cylindric hyphae, 1.5—3.5 µm diam, protruding in fascicles at times. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Clitocybe gilva* (FRIES) KUMMER, Führer Pilzkunde, p. 124. 1871.

marginata: Clitocybe marginata PECK, Bull. Torrey Bot. Club 29: 558. 1902.

Holotype: Maine, September, coll. WHITE. Consisting of 1 specimen, NYS.

Spores 5—6.5×3.5—4.5 µm, ellipsoid, smooth, inamyloid, some with vinaceous droplets in KOH. Basidia 23—40×6—8 µm, 4-spored, some with vinaceous droplets in KOH. Cystidia not

differentiated. Pileus pale vinaceous in KOH, pigment intracellular and encrusted; cutis of cylindric hyphae, 2—4.5 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections absent. Scattered oleiferous hyphae present.

Conclusion: = *Callistosporium marginatum* (Peck) Bigelow, Rhodora 78: 123. 1976.

marmoreus: Agaricus marmoreus Peck, New York State Mus. Rep. 24: 61. (for 1870) 1872.

Holotype: Greig, Lewis Co., New York, September. Consisting of 3 specimens, NYS.

Spores 3.5—5 μm diam, globose or subglobose, smooth, inamyloid, wall weakly cyanophilous(?). Basidia 20—27×3.5—6.5 μm, 4-spored, siderophilous granules absent. Cystidia not differentiated. Pileus: cutis of cylindric hyphae, 1.5—3 μm diam, smooth, hyaline. thin walled. Hymenophoral trama of undulate-subparallel hyphae, Clamp connections present.

Conclusion: = *Hypsizygus marmoreus* (Peck) Bigelow, Mem. New York Bot. Garden, 28: 15. 1976.

media: Clitocybe media Peck, New York State Mus. Rep. 42: 18. (for 1888) 1889.

Holotype: North Elba, Essex Co., New York, September. Consisting of 8 specimens, NYS.

Spores 7—9×4.5—5.5 μm, ellipsoid to oblong or ovoid, smooth, inamyloid. Basidia 31—51×5.5—8 μm, 2- or 4-spored, basidioles often irregular in shape. Cystidia not differentiated. Pileus: cutis brownish in KOH, pigment intracellular; cutis of cylindric hyphae, 2.5—6 μm diam. Hymenophoral trama apparently interwoven (revival not suitable for detailed observation). Clamp connections present.

Conclusion: = form of *Clitocybe clavipes* (Fries) Kummer, Führer Pilzkunde, p. 124, 1871.

mexicana: Clitocybe mexicana Murrill, Mycologia 3: 191. 1911.

Holotype: near Jalapa, Oaxaca, Mexico, 12—20 December 1909. Murrill, 137. Consisting of 4 specimens, NY.

Spores 7—8.5(—10)×2.5—3 μm, cylindric in face view, subfusoid and inequilateral in side view, smooth, inamyloid. Basidia 20—40×3.5—6 μm, 4-spored. Cystidia not differentiated. Pileus: pigment in thickened walls and as very fine encrustations; cutis of cylindric hyphae, 3—5 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present. Oleiferous hyphae present.

Conclusion: = an acceptable species (*Clitocybe*, section Inornatae).

microspora: Clitocybe microspora Peck, Bull. Torrey Bot. Club 36: 331. 1909.

Holotype: Claremont, Los Angeles Co., California, January. Coll. Baker. Consisting of 4 specimens, NYS.

Spores 4—5×2—3 μm, broadly ellipsoid, smooth, inamyloid, walls cyanophobic (deposit "white", according to Peck's label with holotype). Cystidia not differentiated. Pileus ± homogeneous, of cylindric or inflated hyphae, 3—11(—18) μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: apparently a species of *Clitocybe*, section Candicantes, but field description indicates that the specimens were old or faded.

morbifera: Clitocybe morbifera Peck, Bull. Torrey Bot. Club 25: 321. 1898.

Holotype: Washington, District of Columbia, October. Coll. Braendle. Consisting of 3 specimens, NYS.

Spores 4.5—6.5×2.5—3 μm, ellipsoid, smooth, inamyloid. Cystidia not differentiated. Pileus: cutis of narrow cylindric hyphae, 2—5 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

The type collection has specimens from Washington collected by Braendle, and specimens from Cambridge, Maryland collected by McIlvaine. Peck's field notebook (n. 25, p. 133) notes only the Washington collection in his handwritten description and published description. The specimens are more numerous in the Maryland collection, but it cannot be regarded as any type material.

Conclusion: = an acceptable species (*Clitocybe*, section Candicantes).

multiceps: Clitocybe multiceps Peck, New York State Mus. Rep. 43: 17. (for 1889) 1890.

Holotype: Albany, Albany Co., New York, June. Consisting of 4 specimens, NYS.

Spores 6—7 μm diam, globose, smooth, inamyloid. Basidia 24—40×6—9 μm, 4-spored, siderophilous granules present. Cystidia not differentiated. Pileus: cutis indistinct, hyphae throughout mostly cylindric, 2.5—10,5 μm diam. Hymenophoral trama of parallel hyphae. Clamp connections present.

The original description gives two localities, Sandlake and Albany, and both are given in Peck's field notebook (n. 16, p. 97). There is no

way to determine which place the four specimens came from, or to divide them.

Conclusion: = *Lyophyllum fumosum* (Fries) Orton, Trans. Brit. Mycol. Soc. 43: 178. 1960.

multiceps var. *tricholoma: Clitocybe multiceps* var. *tricholoma* Peck, New York State Mus. Bull. 150: 42. (for 1910) 1911.

Holotype: Holley, Orleans Co., New York, September 1910. Coll. Mabie (NYS).

Spores 6—8 μm diam, globose, smooth, inamyloid. Basidia 20—31×6.5—10.5 μm, 4-spored, siderophilous granules present. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, ±3 μm diam; context of inflated hyphae, 4—13 μm diam. Hymenophoral trama of undulate-subparallel hyphae, Clamp connections present.

Conclusion: = *Lyophyllum fumosum* (Fries) Orton, Trans. Brit. Mycol. Soc. 43: 178. 1960.

multiformis: Clitocybe multiformis Peck, New York State Mus. Mem. 4: 141. 1900.

Holotype: Meadowlake, Albany Co., New York, October. Consisting of ca. 16 specimens, NYS.

Spores 5—6.5×3—4 μm, ellipsoid, smooth, inamyloid. Basidia 22—30×5—7.5 μm, 4-spored, siderophilous granules present. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 2.5—5.5 μm diam; context of cylindric hyphae, 4.5—8.5(—11.5) μm diam. Hymenophoral trama of subparallel hyphae. Clamp connections present.

Conclusion: = *Lyophyllum multiformis* (Peck) Bigelow, Rhodora 62: 193. 1960.

murinifolia: Clitocybe murinifolia Murrill, Mycologia 5: 210. 1913.

Holotype: near Seattle, King Co., Washington, October 20—November 1, 1911. Murrill, 3009. Consisting of part of pileus only, NY.

Spores 3—4×2.5—3 μm, globose or subglobose, smooth, inamyloid. Basidia 15—19×4—4.5 μm, 4-spored. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae 2.5—4 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Clitocybe ditopus* (Fries) Gillet, Les Hyménomycètes, p. 166. 1874.

niveicolor: Clitocybe niveicolor MURRILL, Mycologia 3: 100. 1911.

Holotype: near Motzorongo, Mexico, 15 January 1910. MURRILL, 1058. Consisting of 2 specimens (fragments), NY.

Spores 9—11.5×6—7.5 μm, broadly ellipsoid, smooth, inamyloid. Basidia 34—53×8.5—12 μm, 4-spored. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of broad cylindric hyphae, and inflated hyphae, 11.5—19 μm diam; context of cylindric or inflated hyphae, 4—19 μm diam, walls thin or sinuous thickened. Hymenophoral trama of interwoven hyphae. Clamp connections present but rare.

Conclusion: = *Hygrophorus niveicolor* (MURRILL) SMITH & HESLER, Lloydia 5: 23. 1942.

nobilis: Clitocybe nobilis PECK, Bull. Torrey Bot. Club 34: 97. 1907.

Holotype: Deer Lake, Ontario, Canada, August 1906. Coll. GUILLET. Consisting of 6 specimens, NYS.

Spores 6.5—8.5×4—5 μm, ellipsoid, verruculose, ornamentation amyloid, wall and ornamentation cyanophilous. Basidia 26—33× 6—8 μm, 4-spored. Cheilocystidia and pleurocystidia present, fusoid ventricose, 45—62 μm long, 10—11 μm where swollen, wall thin, apex acute, with crystals. Pileus hyaline in KOH; cutis consisting of cylindric hyphae; context of cylindric and inflated hyphae, 2—23 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections absent. Oleiferous hyphae present.

Conclusion: = *Melanoleuca alboflavida* (PECK) MURRILL, North Amer. Fl. 10: 6. 1914.

oculata: Clitocybe oculata MURRILL, Mycologia 5: 210. 1913.

Holotype: Mill City, Marion Co., Oregon, 9 November 1911. Coll. MURRILL, 835. Consisting of 1 specimen, NY.

Spores (8.5—)10—12(—13)×6—9 μm, broadly ellipsoid to ovoid, smooth, amyloid. Basidia 32—46×6—8.5 μm, 2-spored. Cystidia absent on lamellae. Pileus: pilocystidia abundant, mostly clavate to clavate bulbous, often pedicellate, sometimes ± fusoid or cylindric, 19—68 μm long, 6—12.5 μm diam, smooth, with brownish intracellular pigment, some cylindric hyphae also present, 2.5—6 μm diam, hyaline or brownish; context hyaline, hyphae broadly cylindric or inflated, (3—)6—22 μm diam. Hymenophoral trama of ± parallel hyphae. Clamp connections present. Oleiferous hyphae present.

Conclusion: = *Clitocybula oculata* (MURRILL) BIGELOW, Mycologia 65: 1114. 1973.

oreades: Clitocybe oreades MURRILL, Mycologia 5: 210. 1913.

Holotype: near Searsville Lake, San Mateo Co., California, 11 December 1911. Coll. MCMURPHY, 91. Consisting of 5 specimens, NY.

Spores 6.5—8×3—4 μm, ellipsoid, smooth, inamyloid, wall cyanophilous. Basidia 19—28×5—6.5 μm, 4-spored. Cystidia not differentiated. Pileus hyaline in KOH; cutis of cylindric hyphae, 2—3.5 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connection present.

Conclusion: = *Clitocybe nebularis* (FRIES) KUMMER, Führer Pilzkunde, p. 124. 1871.

oregonensis: Clitocybe oregonensis MURRILL, Mycologia 5: 211. 1913.

Holotype: Mill City, Marion Co., Oregon, 9 November 1911. MURRILL, 865. Consisting of 2 specimens, NY.

Spores 7.5—8.5×5.5—6 μm, broadly ellipsoid, smooth, amyloid. Basidia 27—35×7—8.5 μm, 2- and 4-spored. Cystidia not differentiated. Pileus brownish in KOH, pigment intracellular; cutis consisting of cylindric hyphae, 4—6 μm diam; context of cylindric hyphae, 7.5—11.5 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections absent. Scattered oleiferous hyphae present.

Conclusion: = an acceptable taxon (*Clitocybe* subgenus Pseudolyophyllum).

overholtsii: Clitocybe overholtsii MURRILL, North Amer. Fl. 9: 403. 1916.

Holotype: Tolland, Gilpin Co., Colorado, 5 August 1914. Coll. OVERHOLTS, 2114. Consisting of 2 specimens, NY.

Spores 6—7×3.5—4.5 μm, ellipsoid, smooth, hyaline or yellowish in KOH, inamyloid, wall cyanophilous. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 1.5—3.5 μm diam, recumbent or protruding. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present. Scattered oleiferous hyphae present.

Conclusion: = *Clitocybe nebularis* (FRIES) KUMMER, Die Führer in die Pilzkunde, p. 124. 1871.

MURRILL's description of the pileus, "white, becoming grayish with age" misled me to think that the species was the same as *C. robusta* PECK. However, the type specimens dry a color like *C. nebularis* rather than that of *C. robusta*.

parvula: Clitocybe parvula MURRILL, North Amer. Fl. 9: 403. 1916.

Holotype: Lake Placid, Franklin Co., New York, 17—29 July 1912. MURRILL, 143. Consisting of 2 specimens, NY.

Spores 9—14×6—10 μm, broadly ellipsoid, angled and tuberculate, wall thickened, inamyloid. Basidia 29—40×11—13 μm,

clavate bulbous, 1- and 2-spored. Cystidia not differentiated on lamellae. Pileus hyaline in KOH; cutis consisting of a tangled mass of cystidioid end cells, 6—15 μm diam, subclavate at times, walls thin, cells short; context of cylindric or inflated hyphae, 1.5—15 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections absent.

Conclusion: = *Rhodocybe* sp.

patuloides: Agaricus patuloides Peck, New York State Mus. Rep. 32: 25. (for 1878) 1880.

Holotype: Brewerton, Onondaga Co., New York, September. Consisting of 4 specimens, NYS.

Spores (5—)6—7×3—4.5 μm, ellipsoid to subovoid, inamyloid, rare in sections. Basidia 24—35×4.5—7 μm, 4-spored. Cystidia not differentiated. Pileus yellow in KOH, pigment intracellular and dilute; cutis consisting of cylindric hyphae, 2.5—3.5 μm diam, walls slightly thickened at times; context of mostly inflated hyphae, 3—13 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present. Oleiferous hyphae present.

Conclusion: = an acceptable species in *Clitocybe*, but position uncertain, possibly section Clitocybe.

peckii: Clitocybe peckii Murrill, Mycologia 5: 211. 1913.

Holotype: Salem, Marion Co., Oregon; January 1911. Coll. Peck, 20. Specimens destroyed by insects, NY.

Spores ±5—6×4 μm, broadly ellipsoid, smooth, inamyloid, rare, numerous spores of unknown Deuteromycete present. Basidia ±23×6 μm. Cystidia not seen. Pileus fragments: hyphae cylindric, 2.5—6 μm diam, walls thin and smooth, possibly dilute intracellular pigment. Clamp connections present.

Conclusion: the field description and the microscopic characters which were observed do not conflict with a *Clitocybe*, but the species must be excluded due to the impossibility of determining all of the microscopic characters accurately.

peltigerinus: Agaricus peltigerinus Peck, New York State Mus. Rep. 30: 38. (for 1876) 1878.

Holotype: Oneida, Oneida Co., New York, May. Coll. Warne. Consisting of 3—4 specimens (badly broken), NYS (only 2 caps now evident).

Spores 6.5—8.5×4—5 μm, ellipsoid, smooth, inamyloid. Basidia 20—33×6—10 μm, 2- and 4-spored. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae; context of cylindric or inflated hyphae, 3.5—10.5 μm diam. Hymeno-

phoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe* section Omphalinae).

peralbida: Clitocybe peralbida MURRILL, Mycologia 35: 529. 1943.

Holotype: Kelleys Hammock, near Gainesville, Alachua Co., Florida, 19 July 1938. Coll. WEST and MURRILL (F, 17911). Consisting of 18 specimens, FLAS.

Spores 5.5—7.5×3—3.5 μm, ellipsoid, smooth, inamyloid. Basidia 25—27×5—6.5 μm, 4-spored. Cheilocystidia and pleurocystidia present, 38—54 μm long, 6—11 μm broad, broadly cylindric to subclavate, smooth, hyaline, walls thickened and refractive. Pileus hyaline in KOH; cutis consisting of irregular branched hyphae, 2—2.5 μm diam, contorted; context of cylindric hyphae, 2.5—7.5 μm, walls thin. Hymenophoral trama of interwoven hyphae, cylindric, 2—6 μm diam. Clamp connections present. Occasional oleiferous hyphae present.

Conclusion: = an acceptable species (*Clitocybe* section Aberrantissimae).

phyllophiloides: Clitocybe phyllophiloides PECK, New York State Mus. Bull. 176: 19. (for 1913) 1915.

Holotype: Constableville, Lewis Co., New York, 19 September 1911. Consisting of 16 specimens, NYS.

Spores 4—5×3—3.5 μm, ellipsoid or ovoid, smooth, hyaline, inamyloid, some with cyanophilous walls. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 2—3.5 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = an acceptable taxon (*Clitocybe*, section Candicantes), near *C. candicans* and *C. tenuissima* but distinguished by a farinaceous odor and glabrous pileus.

pinophilus: Agaricus pinophilus PECK, New York State Mus. Rep. 31: 32. (for 1877) 1878.

Lectotype: Ticonderoga, Essex Co., New York, August. Consisting of 21 specimens, NYS.

Spores 5—7×3—4 μm, ellipsoid, smooth, inamyloid. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 2—4 μm diam. Hymenophoral trama of interwoven to undulate-subparallel hyphae. Clamp connections present.

PECK's field notebook (n. 9, p. 23) has the same description as published, and it was made from Ticonderoga specimens. The Albany

specimens were collected earlier (n. 9, p. 15) but for some unknown reason PECK crossed out his description of them.

Conclusion: = an acceptable species (*Clitocybe*, section Candicantes).

poculum: Agaricus poculum PECK, New York State Cabinet Rep. 23: 77. (for 1870) 1872.

Holotype: North Elba, Essex Co., New York, August. Consisting of 30 specimens, NYS. (Watercolor by PECK).

Spores 9—11×4—6.5 µm, broadly ellipsoid to ellipsoid oblong, smooth, amyloid. Basidia 20—30×8—10 µm, 2- and 4-spored. Cystidia not differentiated. Pileus brownish in KOH, pigment intracellular or sometimes very finely encrusted; cutis consisting of cylindric hyphae, 3—5 µm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections absent.

Conclusion: = *Clitocybe cyathiformis* (FRIES) KUMMER, Führer Pilzkunde, p. 120. 1871.

praefellea: Clitocybe praefellea MURRILL, Lloydia 8: 273. 1945.

Holotype: Gainesville, Alachua Co., Florida, 15 January 1944 (F, 17980). Consisting of 2 specimens, FLAS.

Spores 8—9(—10)×4—4.5(—5) µm, ellipsoid to ellipsoid oblong, wall thickened, punctate rough to reticulate under oil immersion, inamyloid. Cystidia not differentiated. Pileus hyaline; cutis ± gelatinous appearing in KOH but not a free pellicle, hyphae cylindric, 1—3 µm diam, often undulating; context hyphae usually broad cylindric to inflated, 8—14 µm diam, rarely narrow (±3 µm). Hymenophoral trama of parallel hyphae. Clamp connections present. Oleiferous hyphae present but rare.

Conclusion: = an acceptable species (*Clitocybe*, section Verruculosae).

praticola: Clitocybe praticola MURRILL, Lloydia 5: 136. 1942.

Holotype: Gainesville, Alachua Co., Florida, 8 January 1940 (F, 19098). Consisting of fragments, FLAS, NY.

Spores 7—9×3.5—4 µm, oblong to subcylindric in face view, sometimes lacrymoid in side view, smooth, inamyloid, rare in sections. Cystidia not differentiated. Pileus hyaline in KOH; cutis ± gelatinous appearing in KOH, hyphae cylindric, 2—4 µm diam, end cells protruding at times. Hymenophoral trama configuration not decipherable. Clamp connections present.

Conclusion: = *Hygrophorus recurvatus* PECK, New York State Mus. Bull. 157: 28. (Rep. for 1911) 1912.

pulcherrima: Clitocybe pulcherrima PECK, J. Mycol. 14: 1. 1908.

Holotype: near Detroit, Wayne Co., Michigan, October 1907. Coll. FISCHER. Consisting of 3 specimens, NYS.

Spores 4.5—6×4—4.5 µm, subglobose to short ellipsoid, verrucose, ornamentation amyloid, wall thickened and amyloid. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 4—6.5 µm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Leucopaxillus subzonalis* (PECK) BIGELOW, Lloydia 28: 179. 1965.

pusilla: Clitocybe pusilla PECK, Bull. Torrey Bot. Club 22: 199. 1895.

Holotype: Pasadena, Los Angeles Co., California, 15 February 1895. Coll. MCCLATCHIE. Consisting of 2 clumps of several specimens each, NYS; 3 specimens at NY.

Spores 4—5×3—3.5 µm, short ellipsoid to ovoid, smooth, inamyloid. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of narrow cylindric hyphae, 2—6 µm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Mycena* sp., unusual because of habitat on manure.

rappiana: Clitocybe rappiana MURRILL, Proc. Florida Acad. Sci. 7: 108. (1944) 1945.

Holotype: near Hunter's Station, west of Gainesville, Alachua Co., Florida, 10 August 1938 (F, 18028). FLAS.

Spores 4—5×3—4 µm, mostly broadly ellipsoid, sometimes subglobose or ellipsoid, verrucose (verrucae up to 0.5 µm high), ornamentation amyloid. Cystidia not differentiated. Pileus hyaline in KOH; cutis of cylindric hyphae, 1.5—3.5 µm diam. Hymenophoral trama configuration unknown due to poor revival. Clamp connections present.

Conclusion: = *Leucopaxillus albissimus* var. *rappii* (MURRILL) SINGER, Lilloa 22: 242. (1949) 1951.

regularis: Clitocybe regularis PECK, New York State Mus. Rep. 54: 948. (for 1900) 1902.

Holotype: Bolton, Warren Co., New York, 22 August. Consisting of ca. 8 specimens, NYS; 1 specimen at NY.

Spores 4.5—6×3.5—4 µm, subglobose to broadly ellipsoid, smooth, inamyloid, wall cyanophobic, contents cyanophilous. Cystidia not differentiated. Pileus hyaline in KOH; cutis consist-

ing of cylindric hyphae. 1.5—3 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe*, section Candicantes).

revoluta: *Clitocybe revoluta* PECK, New York State Mus. Rep. 46: 23. (for 1892) 1894.

Holotype: Alcove, Albany Co., New York, September 1892. Consisting of 12 specimens, NYS.

Spores globose (4—5.5 μm) or subglobose to broadly ellipsoid (4—6×4—5.5 μm), smooth, walls cyanophilous, inamyloid. Basidia 28—40×6—8 μm, 4-spored, siderophilous granules present. Cystidia not differentiated. Pileus: cutis somewhat gelatinous appearing in KOH, consisting of cylindric hyphae, ±3 μm diam, recumbent or protruding in fascicles. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Lyophyllum connatum* var. *revolutum* (PECK) BIGELOW, comb. nov. (Basionym: *Clitocybe revoluta* PECK, New York State Mus. Rep. 46: 23. 1894.)

This is closely related to *Lyophyllum connatum* (FRIES) SINGER, differing by the spore width and thus spore shape.

robinsoniae: Clitocybe robinsoniae MURRILL, North Amer. Fl. 9: 400. 1916.

Holotype: Yellowstone Lake, Yellowstone National Park, Wyoming, 9 August 1912. Coll. ROBINSON, 36. Consisting of 1 specimen, NY.

Spores 5—6.5(—8)×2.5—3.5(—4) μm, ellipsoid to nearly oblong, smooth, inamyloid. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 1.5—3 μm diam, not gelatinizing in KOH. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Clitocybe leptoloma* (PECK) PECK, New York State Mus. Bull. 157: 68. (Rep. for 1911) 1912.

robusta: Clitocybe robusta PECK, New York State Mus. Rep. 49: 31. (for 1895) 1897.

Holotype: Catskill Mts., Ulster Co., New York, September. Consisting of ca. 4 specimens, NYS.

Spores 6—7×3—4 μm, ellipsoid, smooth, inamyloid, walls cyanophilous. Cystidia not differentiated. Pileus: cutis consisting of cylindric hyphae, 1.5—2.5 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe*, section Clitocybe).

rugosipes: Clitocybe rugosipes MURRILL, North Amer. Fl. 9: 413. 1916.

Holotype: Berkeley, Contra Costa Co., California, 7 February 1911. Coll. HARPER, 29. Consisting of ca. 3 specimens, damaged by insects, NY.

Spores 5.5—7×3—4.5 μm, ellipsoid, smooth, inamyloid. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 2.5—4.5 μm diam, not gelatinizing in KOH. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = a species of *Clitocybe*, section Candicantes, but excluded due to incomplete field data.

sinopicoides: Clitocybe sinopicoides PECK, New York State Mus. Bull. 157: 80. (for 1911) 1912.

Holotype: Lake Placid, Essex Co., New York, June. Consisting of 15 specimens, NYS.

Spores 6—10×2.5—4 μm, ellipsoid to obovoid in face view, lacrymoid or bent in side view, smooth, inamyloid. Cystidia not differentiated. Pileus: cutis dull orangish in KOH, pigment encrusted; cutis composed of cylindric hyphae, 3—8 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

There are two boxes labeled "Type". One has two specimens within, from Averyville, and the other box has several packets plus 15 specimens loosely held in tissue. Only this box has specimens with the data of the type description. PECK's field notebook has no mention of *C. sinopicoides*, and it is a puzzle how the Averyville collection, North Elba (July), Edmonds Ponds (June), North Elba (September), Lake Placid (September) came to be placed with the specimens from Lake Placid (June).

Conclusion: = *Clitocybe squamulosa* (FRIES) KUMMER, Führer Pilzkunde, p. 123. 1871.

sphaerospora: Clitocybe sphaerospora PECK, Bull. Torrey Bot. Club 36: 332. 1909.

Holotype: Claremont, Los Angeles Co., California, January 1909. Coll. BAKER. Consisting of ½ basidiocarp, NY.

Spores 6.5—8.5(—10)×3.5—5(—6) μm, broadly ellipsoid, smooth, hyaline in KOH, inamyloid. Basidia 28—46×4—7 μm, mostly 4-spored, rarely 1- or 2-spored. Sterigmata long (±6.5 μm). Cystidia not differentiated. Pileus brownish in KOH; cutis of cylindric hyphae, 2—4 μm diam; context hyphae cylindric or inflated, 2.5—16.5 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = near *Clitocybe subsocialis* PECK and *C. sinopica* (FRIES) KUMMER but differing by the absence of an odor and taste and a white stipe.

stipitata: Clitocybe stipitata MURRILL, Mycologia 5: 211. 1913.

Holotype: Stanford University, Santa Clara Co., California, 1907. Coll. PATTERSON. Consisting of 4 specimens, NY.

Spores 6—6.5×4—4.5 μm, ellipsoid, verruculose, ornamentation amyloid. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 1.5—4.5 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Leucopaxillus paradoxus* (COSTANTIN & DUFOUR) BOURSIER, Bull. Soc. Mycol. France 41: 391. 1925.

subbulbipes: Clitocybe subbulbipes MURRILL, North Amer. Fl. 9: 404. 1916.

Holotype: Lake Placid, Essex Co., New York, 17—29 July 1912. MURRILL, 199. Consisting of 3 specimens, NY.

Spores (3.5—)4—5.5×(2—)2.5—3.5 μm, ellipsoid, smooth, inamyloid. Cystidia not differentiated. Pileus pale yellowish in KOH, pigment very finely encrusted on some hyphae; cutis consisting of cylindric hyphae, 2—3(—5) μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe*, section Candicantes).

subcandicans: Clitocybe subcandicans MURRILL, Mycologia 5: 212. 1913.

Holotype: Seattle, King Co., Washington, 20 October—1 November 1911. MURRILL, 230. Consisting of 4 specimens, NY.

Spores 4—4.5×3—3.5 μm, subglobose to broadly ellipsoid, smooth, inamyloid, walls usually cyanophilous. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 2—4 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Clitocybe diatreta* (FRIES) KUMMER, Führer Pilzkunde, p. 122. 1871.

subclavipes: Clitocybe subclavipes MURRILL, North Amer. Fl. 9: 407. 1916.

Holotype: Lake Placid, Essex Co., New York, 3—14 October 1912. MURRILL, 457. Consisting of 1 specimen, NY.

Spores 6—8×4—5 μm, ellipsoid, smooth, inamyloid but a few dextrinoid. Basidia 20—40×5—8(—10) μm, mostly 4-spored, rarely 2-spored. Cystidia not differentiated. Pileus very faintly

brownish in KOH, no encrusted pigments; cutis consisting of cylindric hyphae, 2—4(—5) µm diam. Hymenophoral trama of interwoven to undulate-subparallel hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe*, section Clitocybe).

subconcava: Clitocybe subconcava Peck, New York State Mus. Rep. 54: 948. (for 1900) 1902.

Holotype: Bolton, Warren Co., New York, August 27. Consisting of 16 specimens, NYS.

Spores 5—8(—10.5)×3.5—5 µm, ellipsoid, smooth, inamyloid. Cystidia not differentiated. Pileus dingy or hyaline in KOH, no encrusting pigments; cutis consisting of cylindric hyphae, 1—3.5 µm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe*, section Pseudolyophyllum).

subconnexa: Clitocybe subconnexa Murrill, Mycologia 7: 272. 1915.

Holotype: New York Botanical Garden, Bronx, Bronx Co., New York, 26 September 1911. Consisting of 3 specimens, NY.

Spores 4.5—6×3—3.5 µm, ellipsoid, verruculose, inamyloid, cyanophilous. Cystidia not differentiated. Pileus: cutis consisting of cylindric hyphae, 3—6 µm diam, walls often thickened and refractive. Hymenophoral trama of interwoven to undulate-subparallel hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe*, section Verruculosae).

subcyathiformis: Clitocybe subcyathiformis Peck, New York State Mus. Bull. 122: 136. (for 1907) 1908.

Holotype: Karner, Albany Co., New York, 15 October 1907. Consisting of 15 specimens, NYS.

Spores 6.5—8.5×3.5—5 µm, ellipsoid, smooth, inamyloid. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 2.5—6 µm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe*, section Candicantes).

subdicolor: Clitocybe subdicolor Murrill, North Amer. Fl. 9: 411. 1916.

Holotype: La Honda, near Palo Alto, Santa Clara Co., California, 25 November 1911. Coll. Murrill and Abrams 1247. Consisting of 7 specimens, NY.

Spores 6—8×3.5—4.5 μm, ellipsoid, smooth, inamyloid, contents cyanophilous, wall possibly cyanophilous. Basidia 20—32× 4—7 μm, 4-spored. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 1.5—5 μm diam, rather loosely interwoven but not gelatinous, recumbent or protruding at times; context of mostly cylindric hyphae, 3—11 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: This species belongs to section Candicantes of *Clitocybe*, and may be an acceptable one, but final disposition awaits corroborative collections which have spore deposits.

subditopoda: Clitocybe subditopoda Peck, New York State Mus. Rep. 42: 18. (for 1888) 1889.

Holotype: North Elba, Essex Co., New York, September. Consisting of 20 specimens, NYS.

Spores 4.5—6(—6.5)×2.5—4 μm, broadly ellipsoid to ellipsoid, smooth, inamyloid. Basidia 16—23×3—5 μm, 4-spored, siderophilous granules not present. Cystidia not differentiated. Pileus pale fuliginous in KOH, pigment apparently intracellular; cutis consisting of cylindric hyphae, 2.5—5 μm diam, somewhat gelatinous appearing in KOH but not a true pellicle or ixotrichodermium. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe*, section Pseudolyophyllum).

subeccentrica: Clitocybe subeccentrica Murrill, Bull. Torrey Bot. Club 67: 233. 1940.

Holotype: near Santa Fe, Alachua Co., Florida, 13 July 1938 (F, 18385). FLAS.

Spores 6—8.5×4—5 μm, ellipsoid or sometimes obovoid in face view, sometimes sublacrymoid in side view, smooth, inamyloid. Cheilocystidia present but scattered, ± cylindric 47—54×5.5—8 μm, walls thickened and refractive; pleurocystidia absent. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 2.5—4(—7) μm diam; context hyphae mostly cylindric, 4—11 μm diam, walls thin or thickened (up to 1 μm). Hymenophoral trama of interwoven hyphae. Clamp connections present. Oleiferous hyphae present.

Conclusion: = an acceptable species (*Clitocybe*, section Aberrantissimae).

subfellea: Clitocybe subfellea Murrill, Mycologia 43: 235. 1951.

Holotype: Lake Rosa, Putnam Co., Florida, 13 October 1947. FLAS.

Spores 5—6(—6.5)×3—3.5 μm, ellipsoid, smooth, inamyloid. Cystidia not differentiated. Pileus faintly yellowish in KOH but no localized pigment; cutis of cylindric hyphae, 1.5—2.5 μm diam. Hymenophoral trama of undulate-subparallel hyphae or parallel hyphae. Clamp connections absent.

Conclusion: = an acceptable species (*Clitocybe*, section Candicantes).

subfumosipes: Clitocybe subfumosipes Murrill, Mycologia 5: 212. 1913.

Holotype: near Seattle, King Co., Washington, 20 October—1 November 1911. Murrill, 316. Consisting of 8 specimens, NY.

Spores 4.5—7.5×3—4.5 μm, ellipsoid or sometimes ovoid, smooth, inamyloid. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 4—5 μm diam. Hymenophoral trama of undulating-subparallel hyphae. Clamp connections present.

Conclusion: = a member of *Clitocybe*, section Candicantes, and possibly identical to *Clitocybe fuscipes* Peck.

subhirtus: Agaricus subhirtus Peck, New York State Mus. Rep. 32: 25. (for 1878) 1880.

Holotype: Brewerton, Onondaga Co., New York, September. Consisting of 7 specimens, NYS.

Spores 4.5—6×3.5—4.5 μm, subglobose to broadly ellipsoid, verrucose, ornamentation amyloid, wall thickened. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 3—6 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Leucopaxillus albissimus* var. *subhirtus* (Peck) Singer & Smith, Pap. Michigan Acad. Sci. 28: 105. (1942) 1943.

subilludens: Clitocybe subilludens Murrill, Proc. Florida Acad. Sci. 8: 198. 1945. (= *Monadelphus subilludens* Murrill, Proc. Florida Acad. Sci. 8: 180. 1945).

Cotype: Gainesville. Alachua Co., Florida, 26 July 1944 (F, 22197). FLAS.

Spores 7—8.5(—9)×4—4.5(—5) μm, ellipsoid, pale yellowish in KOH, smooth, inamyloid. Basidia 26—34×5.5—7 μm, 4-spored, contents often yellowish in KOH. Cheilocystidia present, basidioid and often proliferated into filamentous processes. Pileus dull yellow in KOH, pigment intracellular; cutis consisting of cylindric hyphae,

1—2 μm diam; context hyphae mostly cylindric, 4—13 μm diam, walls thin or thickened. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present. Oleiferous hyphae abundant throughout, yellow, 3—8 μm diam.

Conclusion: = *Omphalotus subilludens* (MURRILL) BIGELOW, comb. nov. (Basionym: *Clitocybe subilludens* MURRILL, Proc. Florida Acad. Sci. 8: 198. 1945.)

subinversa: Clitocybe subinversa MURRILL, Mycologia 5: 212. 1913.

Holotype: Portola, Pluma Co., California, 4 January 1903. Coll. MCMURPHY, 50. Consisting of 6 specimens, NY.

Spores 4—5.5×3.5—4.5 μm, globose to subglobose or broadly ellipsoid, verruculose, inamyloid, ornamentation cyanophilous. Basidia 22—32×5.5—6 μm, mostly 4-spored but sometimes also 1-, 2-, 3-spored, basidioles irregular in shape. Cystidia not differentiated. Pileus faintly yellowish in KOH but pigment not localized; cutis consisting of cylindric hyphae, 2—3 μm diam. Hymenophoral trama of undulate-subparallel or somewhat interwoven hyphae. Clamp connections present. Oleiferous hyphae present but rare.

Conclusion: = *Clitocybe flaccida* (FRIES) KUMMER, Führer Pilzkunde, p. 124. 1871.

submedia: Clitocybe submedia MURRILL, Proc. Florida Acad. Sci. 7: 108. 1944.

Holotype: Planera Hammock, 11 miles NW of Gainesville, Alachua Co., Florida, 2 August 1938. Consisting of 1 specimen, FLAS.

Spores 6—7.5×3.5—5 μm, ellipsoid, smooth, amyloid. Basidia 21—28×6—7.5 μm, 4-spored. Cystidia not differentiated. Pileus light brownish yellow in KOH, pigment in slightly thickened but smooth walls and in colored oleiferous hyphae; cutis consisting of cylindric hyphae, (2—)5—10 μm diam, somewhat gelatinous appearing in KOH; context hyphae cylindric or inflated or irregular in shape, 3—13 μm diam. Hymenophoral trama of parallel hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe*, subgenus Pseudolyophyllum).

subnigricans: Clitocybe subnigricans PECK, New York State Mus. Bull. 150: 51. (for 1910) 1911.

Holotype: Rye Beach, Rockingham Co., New Hampshire, 23—25 July 1907. Coll. WELLS, communicated to PECK by FESSENDEN. Consisting of ca. 4 specimens, NYS.

Spores 6—7.5×4—4.5 μm, ellipsoid or ovoid, smooth, inamyloid. Basidia 22—35×6—7 μm, 4-spored, siderophilous granules present. Cystidia not differentiated. Pileus hyaline in KOH;

cutis consisting of cylindric hyphae, ±3.5 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Lyophyllum subnigricans* (Peck) Bigelow, Lloydia 28: 178. 1965.

subpinophila: Clitocybe subpinophila Murrill, Bull. Torrey Bot. Club 66: 156. 1939.

Holotype: Gainesville, Alachua Co., Florida, 3 September 1938 (F, 18323). Consisting of 1 specimen (broken), FLAS.

Spores 6—7.5×4.5 μm, obovoid in face view, sublacrymoid in side view, smooth, inamyloid. Basidia 20—24×5—6 μm, 4-spored. Cystidia not differentiated. Pileus yellowish in KOH but localized pigment not seen; cutis consisting of cylindric hyphae, 2—4 μm diam. Hymenophoral trama configuration not decipherable. Clamp connections present.

Conclusion: = apparently a member of *Clitocybe*, section Candicantes, but not accepted presently due to absence of some field data.

subsimilis: Clitocybe subsimilis Peck, New York State Mus. Rep. 41: 61. (for 1887) 1888.

Holotype: Catskill Mts., Ulster Co., New York, September. Consisting of ca. 20 specimens, NYS.

Spores 6.5—8×4—5.5 μm, ellipsoid to broadly ellipsoid, smooth, inamyloid, wall cyanophobic. Basidia 16.5—46×6—8 μm, 4-spored. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 2—3 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: close to *C. hygrophoroides* Bigelow and *C. variabilis* Murrill (*Clitocybe*, section Candicantes), but exact relationship cannot be determined due to absence of spore deposit for *C. subsimilis*. It is also possible that the species belongs to *Hygrophorus* instead.

subsocialis: Clitocybe subsocialis Peck, Bull. Torrey Bot. Club 23: 411. 1896.

Holotype: Camas, Clark Co., Washington, December. Coll. Yeomens. Consisting of ±4 specimens, NYS.

Spores 6—8.5×5—6 μm, broadly ellipsoid, smooth, inamyloid. Basidia 23—36×5—10 μm, mostly 4-spored but occasionally 2-spored, sterigmata long (up to 6 μm). Cystidia not differentiated. Pileus: cutis consisting of cylindric hyphae, 3—7 μm diam, walls finely encrusted. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe*, subgenus Infundibuliformes).

subtruncicola: Clitocybe subtruncicola MURRILL, Bull. Torrey Bot. Club 66: 157. 1939.

Holotype: Planera Hammock, 11 miles NW of Gainesville, Alachua Co., Florida, 21 October 1938 (F, 18302). FLAS.

Spores 4—4.5×2.5—3.5 µm, short and broadly ellipsoid, smooth, inamyloid. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 2—6 µm diam. Hymenophoral trama configuration impossible to decipher due to poor revival. Clamp connections present.

Conclusion: = probably *Clitocybe truncicola* (PECK) SACCARDO, Syll. Fung. 5: 184. 1887.

subzonalis: Agaricus subzonalis PECK, Buffalo Soc. Nat. Sci. Bull. 1: 46. 1873.

Holotype: Croghan, Lewis Co., New York, September. Consisting of 3 specimens, NYS.

Spores 5—6×4—5 µm, subglobose to short ellipsoid, verrucose, ornamentation amyloid. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 3—5 µm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Leucopaxillus subzonalis* (PECK) BIGELOW, Lloydia 28: 179. 1965.

sulphurea: Clitocybe sulphurea PECK, New York State Mus. Rep. 41: 62. (for 1887) 1888.

Holotype: Wittenberg Mt., Catskill Mts., Ulster Co., New York, September. Consisting of 9 specimens, NYS.

Spores 6—7.5×4.5—5.5 µm, ellipsoid or broadly ellipsoid, smooth, inamyloid. Basidia 26—36×6—7 µm, 4-spored. Cheilocystidia present but not on all lamellae, 35—60 µm long, 15—23 µm broad, clavate pedicellate or subsaccate or subcylindric, walls thin, smooth, hyaline. Pleurocystidia absent. Pileus golden yellow to yellow in KOH, pigment very finely encrusted; cutis consisting of cylindric hyphae, 2.5—8.5 µm diam. Hymenophoral trama of subparallel hyphae, yellowish in KOH. Clamp connections present. Oleiferous hyphae present.

Conclusion: = *Tricholomopsis sulphurea* (PECK) BIGELOW, Rhodora 71: 189. 1969.

tarda: Clitocybe tarda PECK, Bull. Torrey Bot. Club 24: 140. 1897.

Holotype: Lynn, Essex Co., Massachusetts, December. Coll. DOUGHTY. Consisting of ca. 19 specimens, NYS.

Spores 6—7.5×4.5—5.5 μm, ellipsoid, verruculose, inamyloid, ornamentation cyanophilous. Basidia 23—31×5.5—7.5 μm, usually 4-spored, rarely 2-spored. Cystidia not differentiated. Pileus: tissue did not revive well; hyphae seen cylindric to inflated, 6—17 μm diam. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present. Oleiferous hyphae present but rare.

Conclusion: = an acceptable species (*Clitocybe*, section Verruculosae). Identical to *Lepista sordida* ss. SINGER et al. but the epithet is preempted in *Clitocybe* by *C. sordida* VELENOVSKY (Ceske Houby 2: 258. 1920).

tarda var. *pallidior: Clitocybe tarda* var. *pallidior* PECK, Bull. Torrey Bot. Club 24: 140. 1897.

Holotype: Lynn, Essex Co., Massachusetts. Coll. DOUGHTY. Consisting of ca. 4 specimens, NYS.

Spores 6—12×4.5—7 μm, ellipsoid, verruculose or sometimes smooth, inamyloid, ornamentation cyanophilous. Basidia 18—28.5×5.5—7 μm, 1-, 2- and 4-spored. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 2.5—6 μm diam. Hymenophoral trama of interwoven hyphae. Clamp connections present. Oleiferous hyphae present but scattered.

Conclusion: = a form of *Clitocybe tarda* PECK, Bull. Torrey Bot. Club 24: 140. 1897.

tenebricosa: Clitocybe tenebricosa MURRILL, Mycologia 7: 275. 1915.

Holotype: New York Botanical Garden, Bronx, Bronx Co., New York, 25 Spetember 1908. Coll. PLASS. Consisting of 2 specimens, NY.

Spores 5.5—6 μm diam, globose, smooth, inamyloid. Basidia 27—41×7.5—10 μm, 4-spored. Siderophilous granules present. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 1—3 μm diam, loosely interwoven at surface. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = *Lyophyllum* sp. It is impossible to place this species correctly due to the unusual habitat in which basidiocarps occurred. They grew in total darkness coming from between bricks under a building. The pileus was described as "white", but under such circumstances it is unlikely that any potential pigment would develop and that a normal habit of growth would be produced.

testaceoflava: Clitocybe testaceoflava MURRILL, Mycologia 3: 191. 1911.

Holotype: Cinchona, Jamaica, 25 December 1908—8 January 1909. MURRILL, 543. Consisting of 2 specimens, NY.

Spores 7.5—9×6—7.5 µm, subglobose to ellipsoid, angular-nodulose, inamyloid. Basidia 32—48×7.5—9 µm. Cystidia not observed on lamellae. Pileus pale yellowish in KOH; surface consisting of pilocystidia, cylindric or irregular in shape, up to 15 µm broad, encrusted on and near apices; context of cylindric or inflated hyphae 3—15 µm diam, walls smooth and usually thin. Hymenophoral trama not decipherable. Clamp connections present. Oleiferous hyphae present but few and scattered.

Conclusion: = *Leptonia* sp. or *Rhodophyllus testaceoflava* (MURRILL) SINGER, Lloydia 5: 100. 1942.

Clitocybe troyana MURRILL (Mycologia 3: 190. 1911) was not examined because of the paucity of material. There is a single basidiocarp of mycenoid stature existing at NY. This species was found on the ground in woods at Troy and Tire, Cockpit Co., Jamaica in January 1909.

truncicolus: Agaricus truncicolus PECK, Buffalo Soc. Nat. Sci. Bull. 1: 46. 1873.

Holotype: Croghan, Lewis Co., New York, September. Consisting of 24 specimens, NYS.

Spores 4×3—3.5 µm, subglobose to broadly ellipsoid, smooth, inamyloid (rare in sections), wall cyanophobic. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 1.5—3.5 µm diam, walls thin. Hymenophoral trama of undulate-subparallel hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe*, section Candicantes).

umbriniceps: Monadelphus umbriniceps MURRILL, Quart. J. Florida Acad. Sci. 8: 181. 1945.

= *Clitocybe umbriniceps* MURRILL, Quart. J. Florida Acad. Sci. 8: 198. 1945.

Holotype: Gainesville, Alachua Co., Florida, 5 January 1945. Coll. MURRILL (F, 18021). Consisting of ca. 40 specimens (some fragmented and some with insect damage), FLAS.

Spores (5.5—)6—7×3.5—4 µm, ellipsoid, smooth, walls slightly thickened, hyaline or faintly yellowish in KOH, inamyloid, walls and contents cyanophilous. Basidia 25—32×5—7.5 µm, 4-spored, siderophilous granules present. Cystidia not differentiated. Pileus: cutis hyphae cylindric, 2—5 µm diam, walls slightly thickened and with faint spirally encrusted pigment bands (Congo red). Hymenophoral trama of parallel hyphae. Clamp connections present.

Conclusion: = *Lyophyllum umbriniceps* (MURRILL) BIGELOW, comb. nov. (Basionym: *Monadelphus umbriniceps* MURRILL, Quart. J. Florida Acad. Sci. 8: 181. 1945.)

This was found by MURRILL growing in a large fairy ring on an open grassy lawn near laurel oaks (*Quercus laurifolia*). The basidiocarps were gregarious or cespitose, the pilei umbrinous, lamellae and stipe white, odor pleasant, taste "sweetish to slightly unpleasant," and the lamellae adnate. The spirally encrusted pigments on the cutis hyphae of the pileus are unusual for a species of *Lyophyllum* in section Difformia. It is likely that the spore deposit of this species would be tinted yellow, extrapolating from the cyanophilous spores, although MURRILL did not comment on this character.

variabilis: Clitocybe variabilis MURRILL, Mycologia 5: 213. 1913.

Holotype: near Mill City, Marion Co., Oregon, 9 November 1911. MURRILL 797. Consisting of 2 specimens (damaged by insects), NY.

Spores 6.5—8.5×4—5(—5.5) μm, ellipsoid, smooth, inamyloid, wall cyanophobic or cyanophilous. Basidia 27—45×5—9 μm, 4-spored or sometimes 1-spored. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 1.5—4 μm diam. Hymenophoral trama of interwoven hyphae. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe*, section Candicantes).

vialis: Clitocybe vialis MURRILL, North Amer. Fl. 9: 413. 1916.

Holotype: Corvallis, Benton Co., Oregon, 6—11 November 1911. MURRILL, 941. Consisting of 1 specimen, NY.

Spores 6—9×4—5 μm, ellipsoid, verruculose, inamyloid, ornamentation cyanophilous. Basidia 19—32×7—8 μm, mostly 4-spored, occasionally 2-spored, sterigmata germinated at times. Cystidia not differentiated. Pileus hyaline in KOH, surface infected by deuteromycete; cutis consisting of cylindric hyphae, 3—7 μm diam. Hymenophoral trama of interwoven hyphae. Clamp connections present. Oleiferous hyphae present but scattered.

Conclusion: = probably *Clitocybe tarda* PECK, Bull. Torrey Bot. Club 24: 140. 1897.

vilescens: *Agaricus vilescens* PECK, New York State Mus. Rep. 33: 19. (for 1879) 1883.

Holotype: Jamesville, Onondaga Co., New York, August. NYS.

Spores 5—6×4.5—5 μm, ellipsoid, verruculose, inamyloid. Cystidia not differentiated. Pileus pale fuliginous in KOH, pigment finely encrusted; surface somewhat gelatinous appearing in

KOH, cutis consisting of cylindric hyphae. Hymenophoral trama of parallel hyphae, walls encrusted. Clamp connections present.

Conclusion: = *Rhodocybe* sp.

violaceifolia: Clitocybe violaceifolia MURRILL, Mycologia 5: 213. 1913.

Holotype: near Salem, Marion Co., Oregon, January 1911. Coll. PECK. Consisting of 1 specimen, NY.

Spores 6.5—9 × 4—5.5 µm, broadly ellipsoid, smooth, inamyloid. Basidia 24—38 × 5.5—8 µm, basidioles often irregular in shape. Cystidia not differentiated. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 1—2.5 µm diam. Hymenophoral trama configuration not decipherable due to poor revival of tissue. Clamp connections present.

Conclusion: = an acceptable species (*Clitocybe*, subgenus Pseudolyophyllum).

washingtonensis: Clitocybe washingtonensis MURRILL, Mycologia 5: 214. 1913.

Holotype: near Seattle, King Co., Washington, 20 October—1 November, 1911. MURRILL, 615a. Specimens destroyed by insects — only fragments and dust present, NY.

Spores 4—5.5 × 2—3 µm, subglobose to ellipsoid, smooth, inamyloid (SINGER: 5—6 × 3.3—4.5 µm; HARMAJA: 7—8 × 3—4 µm). Basidia 17—21 × 4.5—5 µm. Cystidia not seen. Pileus hyaline in KOH; cutis consisting of cylindric hyphae, 1.5—4.5 µm. Hymenophoral trama configuration not decipherable but reported by SINGER as "regular" with hyphae 5—6 µm diam.

Conclusion: undoubtedly a member of *Clitocybe*, section Candicantes, near *C. cerussata*. Not acceptable on present data.

watsonii: Clitocybe watsonii MURRILL, Proc. Florida Acad. Sci. 7: 127. 1944. (= *Monadelphus watsonii* MURRILL, Proc. Florida Acad. Sci. 7: 111. 1944.

Holotype: Gainesville, Alachua Co., Florida, 9 December 1942 (F, 119628). Consisting of 1 specimen, FLAS.

Spores 7.5—8.5 × 4.5—5 µm, ellipsoid or subovoid, smooth, inamyloid. Cystidia not differentiated. Pileus dull orangish in KOH, pigment intracellular; cutis consisting of cylindric hyphae, 2—4 µm diam. Hymenophoral trama configuration uncertain due to poor revival of tissue. Clamp connections absent. Oleiferous hyphae present.

Conclusion: = *Armillariella watsonii* (MURRILL) SINGER, Lilloa 22: 216. (1949) 1951.

westii: Clitocybe westii MURRILL, Lloydia 7: 303. 1944.

Holotype: Kelley's Hammock, 10 miles NW of Gainesville, Alachua Co., Florida, 3 September 1938. Coll. WEST and MURRILL (F, 17969). Consisting of 2 specimens, FLAS.

Spores 7.5—8×5—6 μm, ellipsoid, slightly angular at times, subovoid in profile, wall appearing slightly unevenly thickened under oil immersion, yellowish in KOH, inamyloid, walls and contents cyanophilous, apiculus prominent. Basidia 25—37×5.5—9 μm, 4-spored, contents diffuse and cyanophilous. Cystidia not differentiated. Pileus: cutis hyphae cylindric, 1.5—5 μm diam, encrusting pigments absent. Clamp connections absent.

Conclusion: = *Rhodocybe* sp., near *R. roseiavellanea* (MURRILL) SINGER. (Note: the publication stated collected in "August", but specimen label has "September".)

whetstoneae: Clitocybe whetstoneae MURRILL, North Amer. Fl. 9: 298. 1916.

Holotype: Minneapolis, Hennepin Co., Minnesota. Coll. WHETSTONE. Consisting of 2 specimens (badly damaged by insects), NY.

Spores 4.5—6×2.5—4 μm, ellipsoid, verruculose, inamyloid. Details of pileus and lamellae undecipherable due to condition of holotype. Hyphae cylindric or somewhat inflated, 4—11.5 μm, walls thin. Clamp connections present.

Conclusion: = probalby *Clitocybe subconnexa* MURRILL, Mycologia 7: 272. 1915.