THE AGARICACEAE OF THE PACIFIC COAST—I

WILLIAM A. MURRILL

A list of the pileate polypores and boletes collected by the writer on the Pacific coast in 1911 appeared in MYCOLOGIA for March, 1912, together with a descriptive list of the localities visited at that time. The present series of articles is more comprehensive in scope, including all the gill-fungi known to exist in California, Oregon, Washington, British Columbia, and Alaska, as represented in the collections of McClatchie, Dudley, Trelease, Baker, Abrams, Harper, McMurphy, M. E. Peck, Lake, Zeller, and others. Naturally, the extensive collections and field studies made by the writer in 1911 will be used as the basis of these articles.

The Pacific Coast is the fifth distinct region in which the writer has been interested so far as the fleshy fungi are concerned. The northeastern United States have many species in common with Europe and a fair knowledge of European species is necessary to the student of this section. Also, a number of prevailing types circle the globe in temperate regions and extend southward along the mountains. The southern United States show a large number of distinct species which may well be studied as a group, although northern species are not rare and some tropical species occur there. As already stated in previous articles, the gap between tropical and temperate American species is comparatively wide and abrupt, although a few northern species are to be expected in the high mountains of our tropical islands, probably owing to former connections with the mainland.

The region of the Pacific coast is of exceeding interest, and has been so during recent geologic time, since the differentiation of the seasons. It differs more from the eastern United States in many respects than the eastern United States differ from northern Europe, which is explained by former land connections with Europe by way of Greenland. The difference in the fungi is not

that abrupt one noticed in the change to tropical America, where important temperate genera are wholly lacking, but it is rather a case of the same or similar genera represented largely by different species from those found east of the Rocky Mountains.

Tribe CHANTERELEAE

1. DICTYOLUS Quél. Ench. Fung. 139. 1886

DICTYOLUS RETIRUGUS (Bull.) Quél. Ench. Fung. 140. 1886

Chanterel bryophilus Peck, Harriman Alaska Exp. Crypt. 46. 1904. Not *C. bryophilus* Fries, Syst. Myc. 1: 325. 1821.

Muir Glacier, Alaska, *Trelease 552, 563;* Stanford University, California, *Baker.*

2. CHANTEREL Adans. Fam. Pl. 2: 11. 1763

1. CHANTEREL BEHRINGENSIS Berk. & Curt. Proc. Am. Acad. 4: 119. 1858

Bering Strait, Alaska, *Wright.*

2. CHANTEREL INFUNDIBULIFORMIS (Scop.) Fries, Epicr. Myc. 366. 1838

This species was found to grow very abundantly most of the year in a peat bog in the vicinity of Seattle among sphagnum and cranberry. The pileus is avellaneous and the stipe dull-luteous in fresh plants.

Seattle, Washington, *Murrill 273.*

3. CHANTEREL FLOCCOSUS Schw. Trans. Am. Phil. Soc. II. 4: 153. 1832

Corvallis, Oregon, *Murrill 1014;* Salem, Oregon, *M. E. Peck.*

4. CHANTEREL ALECTOROLOPHOIDES (Schaeff.) Murrill, N. Am. Fl. 9: 169. 1910

Seattle, Washington, *Murrill 669, Zeller;* La Honda, California, *Murrill & Abrams 1276;* British Columbia, *A. I. Hill 62.*

5. CHANTEREL CHANTARELLUS (L.) Murrill, N. Am. Fl. 9: 169. 1910

I found it difficult to believe that this was the same plant I had seen so often in Europe and the eastern United States. It grows much larger, is often compound and proliferous, and the hymenium becomes exceedingly complicated as it develops. The flesh is white and mild to the taste, and is very probably edible. Its size and abundance should make it an important article of food if it proves to be as wholesome as the eastern form.

Seattle, Washington, *Murrill 294, 363, 677, Zeller 1;* Corvallis, Oregon, *Murrill 1024,* Newport, Oregon, *Murrill 1026, 1050;* Berkeley, California, *Harper 5,* Stanford University, California, *Nohara 59,* Searsville Lake, California, *McMurphy 34.*

Tribe LACTARIEAE

This tribe, containing the genera *Russula* and *Lactaria,* will be treated in a separate article by Dr. Gertrude S. Burlingham.

Tribe AGARICEAE

Sporophore terrestrial, rarely wood-loving, fleshy throughout, centrally stipitate; spores white.	
Lamellae waxy at maturity, translucent or watery in appearance.	
Veil absent; pileus usually bright-colored.	1. HYDROCYBE.
Veil present; pileus rarely bright-colored.	2. HYGROPHORUS.
Lamellae not waxy, but having that appearance.	3. LACCARIA.
Lamellae neither waxy nor appearing waxy; veil present.	
Lamellae adnate.	4. ARMILLARIA.
Lamellae free.	5. LIMACELLA.
Sporophore wood-loving, with stipe eccentric, lateral, or wanting; spores white.	
Lamellae split longitudinally.	6. HYPONEVRIS.
Lamellae not split.	
Pileus sessile, tough, reviving, with a gelatinous upper stratum.	7. RESUPINATUS.
Pileus fleshy, not reviving, context homogeneous.	
Pileus dimidiate or resupinate.	8. GEOPETALUM.
Pileus stipitate.	
Veil wanting.	9. CREPIDOPUS.
Veil present.	10. PLEUROTUS.

1. HYDROCYBE (Fries) Karst. Hattsv. 233. 1879

1. HYDROCYBE CONICA (Scop.) Karst. Hattsv. 236. 1879

Abundant among mosses in open coniferous barrens about Seattle. All stages of color were observed from miniatous or

orange to greenish and blackish, becoming darker on drying. In Oregon, plants were found over 13 cm. high.

Seattle, Washington, *Murrill 520,* Tacoma, Washington, *Murrill 724;* Mill City, Oregon, *Murrill 795;* Portola, California, *McMurphy 55;* British Columbia, *A. I. Hill 16, 53.*

2. HYDROCYBE COCCINEA (Schaeff.) Karst. Hattsv. 234. 1879

Hygrophorus coccineus (Schaeff.) Fries, Epicr. Myc. 330. 1838.

Determined by Harper from fresh material. Spores ellipsoid, papillate at the side of the base where attached, hyaline with a slightly yellowish tint, 8–10 × 5–6 μ.

Muir Woods, California, *Harper 61;* Kings Mountain, California, under redwoods, *Dudley 164.*

3. **Hydrocybe constans** sp. nov.

Pileus convex, slightly umbilicate, gregarious, 1.5 cm. broad; surface glabrous, shining, not viscid, uniformly red, unchanging on drying, striate from the margin half way to the center; lamellae adnate with decurrent tooth, rather distant, plane or arcuate, testaceous-flavous; spores ellipsoid, smooth, hyaline, 7 × 4 μ; stipe hollow, subequal, smooth, glabrous, concolorous above, ochraceous at the base, 7 cm. long, 5 mm. thick.

Type collected in moss in low woods at Mill City, Oregon, November 9, 1911, *W. A. Murrill 814.* This species resembles *Hygrophorus miniatus* Fries in its form and brilliant red coloring, but does not fade on drying.

4. **Hydrocybe arenicola** sp. nov.

Pileus convex to slightly depressed, gregarious, reaching 7.5 cm. broad; surface sticky but not slimy, smooth, glabrous, melleous, with a ferruginous-ochraceous tint as the plants become older, usually blackish at the center; lamellae short-decurrent, arcuate to plane, venose-connected, distant, thin, whitish to cremeous, flavous on drying; spores ovoid, tapering at one end, smooth, hyaline, 7 × 4 μ; stipe subequal, sticky, smooth, glabrous, pale-melleous, hollow, 5 cm. long, 1.5 cm. thick.

Type collected on the ground in sandy pine barrens on the immediate coast at Newport, Oregon, November 13, 1911, *W. A. Murrill 1049.*

5. **Hydrocybe cremicolor** sp. nov.

Pileus convex to expanded, umbonate, solitary, 2.5 cm. broad; surface moist, not viscid, glabrous, smooth, uniformly cream-colored; lamellae decurrent, arcuate, distant, bright yellowish-white; spores ovoid, pointed at one end, smooth, hyaline, 5–6 × 3.5–4 μ; stipe fleshy, subequal, smooth, glabrous, cremeous, 5 cm. long, 7 mm. thick.

Type collected on the ground in woods at Seattle, Washington, October 20–November 1, 1911, *W. A. Murrill 568.* Plants collected at Berkeley, California, *Harper 30,* appear to agree with this species in the main, but are 4 cm. broad, slightly depressed, and the spores are ovoid, not pointed, 7 × 4 μ.

2. HYGROPHORUS Fries, Gen. Hymen. 8. 1836

1. HYGROPHORUS EBURNEUS (Bull.) Fries, Epicr. Myc. 321. 1838.

One of the most common and abundant species on the Pacific coast. In many localities, I could have gathered a basketful in a very small area. It is edible, and may be recognized by its white color, slimy covering, mild odor, and decurrent, distant gills.

Mill City, Oregon, *Murrill 832,* Corvallis, Oregon, *Murrill 887,* Salem, Oregon, *M. E. Peck;* Marin Co., California, *Miss Eastwood,* Mt. Tamalpais, California, *Miss Eastwood,* Berkeley, California, *Harper 18,* Stanford University, California, *McMurphy 139, Baker 138,* Searsville Lake, California, *McMurphy 58.*

2. **Hygrophorus variicolor** sp. nov.

Pileus rather thick and fleshy, convex to nearly plane, sometimes umbonate, solitary, 5–12 cm. broad; surface smooth, the center moist, subviscid, and glabrous, the margin dry and hispid-scaly, color varying from fulvous at the center to ferruginous-fulvous between center and margin, and stramineous on a marginal zone 1–5 cm. broad; lamellae squarely adnate, somewhat decurrent in large plants, subdistant, inserted, white, waxy, changing to reddish-brown on drying; spores ovoid, smooth, hyaline, 6–8 × 4–4.5 μ; stipe fleshy, subequal, white, pulverulent, 4 cm. long, nearly 1 cm. thick; veil represented by a few short, brownish fibrils at the center of the stipe.

Type collected on the ground in low woods, near Mill City, Oregon, November 9, 1911, *W. A. Murrill 802.* Also collected

in woods near Seattle, Washington, October 20–November 1, 1911, *W. A. Murrill 352, 400, S. M. Zeller 12.* A very beautiful species, related to *Hygrophorus Laurae* Morgan.

3. **Hygrophorus fragrans** sp. nov.

Pileus convex to depressed, not umbonate, gregarious, decidedly fragrant when dry, 8–10 cm. broad; surface smooth, glabrous, viscid, roseous to incarnate, with white margin and somewhat darker center; context rather thick and fleshy, white; lamellae adnate, distant, inserted, white; spores ellipsoid, smooth, hyaline, averaging $8 \times 5\,\mu$; stipe long, equal, solid, furfuraceous, whitish to cremeous or ochraceous, punctate with reddish-brown dots in dried specimens and turning reddish-brown where handled, reaching 10 cm. long and 2 cm. thick.

Type collected in low coniferous woods near Corvallis, Oregon, November 6–11, 1911, *W. A. Murrill 1009.* The punctate stipe reminds one of *Hygrophorus rubropunctatus* Peck.

4. **Hygrophorus subpustulatus** sp. nov.

Pileus fleshy, rather thin, convex, obtusely umbonate when young, solitary or gregarious, 2.5–5 cm. broad; surface very viscid-slimy, especially when young, whitish-avellaneous, sometimes varying to white on the margin, smooth, glabrous; lamellae squarely adnate, rarely slightly decurrent, plane, distant, inserted, white; spores ovoid, smooth, hyaline, $7–8 \times 4–6\,\mu$; stipe white throughout, equal, pruinose above, stuffed, about 7 cm. long and 1 cm. thick.

Type collected on the ground in woods near Seattle, Washington, October 20–November 1, 1911, *W. A. Murrill 317.* Also collected on November 7, 1911, at Glen Brook, Oregon, *W. A. Murrill 777,* and on November 9, 1911, at Mill City, Oregon, *W. A. Murrill 861.* The plants listed under *Hygrophorus limacinus* in the report of the Harriman Alaska Expedition probably belong in this category, but I have not yet had an opportunity to examine them.

3. LACCARIA Berk. & Br. Ann. Nat. Hist. 370. 1883

1. LACCARIA LACCATA (Scop.) Berk. & Br. Ann. Nat. Hist. 370. 1883

Seattle, Washington, *Murrill 289, 503, 656, 711;* Corvallis, Oregon, *Murrill 889,* Newport, Oregon, *Murrill 1041;* La Honda, California, *Murrill & Abrams 1249,* Berkeley, California, *Harper,* Stanford University, California, *Dudley 153, 172, 180, Nohara 35, Miss Patterson 46;* British Columbia, *A. I. Hill 44, 50, 84, 93.*

2. LACCARIA OCHROPURPUREA (Berk. & Curt.) Peck, Ann. Rep. N. Y. State Mus. **50**: 129. 1897

Seattle, Washington, *Murrill 334,* Tacoma Prairies, Washington, *Murrill 717;* Stanford University, California, *Nohara 34, M. T. Cook 4; Abrams 210.*

4. ARMILLARIA (Fries) Quél. Champ. Jura Vosg. 36. 1872

1. ARMILLARIA MELLEA (Vahl) Quél. Champ. Jura Vosg. 36. 1872

Seattle, Washington, *Murrill 703;* Salem, Oregon, *M. E. Peck 5, 21;* Golden Gate Park, San Francisco, California, *Murrill 1102,* La Honda, California, *Murrill & Abrams 1283,* Santa Cruz Mountains, California, *Dudley 105,* Searsville Lake, California, *McMurphy 13, 21,* Madera Creek, California, *McMurphy 1, 17, 40;* Pomona, California, *Baker 3937.*

2. ARMILLARIA ALBOLANARIPES Atk. Ann. Myc. **6**: 54. 1908

A very handsome species described from specimens collected near Corvallis, Oregon, by E. R. Lake in 1906. The description is correct in the main, except that the stipe is solid.

Corvallis, Oregon, *Lake, Murrill 1006;* Glen Brook, Oregon, *Murrill 771;* Newport, Oregon, *Murrill 1047;* Searsville Lake, California, *McMurphy 120, 121.*

3. ARMILLARIA SUBANNULATA Peck, Bull. Torrey Club **36**: 330. 1909

Pileus thick, fleshy, convex or broadly convex, subviscid, fibrillose, alutaceous, darker in the center where it is adorned with

reddish-brown fibrils, margin even; flesh white, odor and taste farinaceous; lamellae close, adnexed, white, sometimes becoming brown on the edges; stem equal, solid, subradicating, reddish-brown, white at the top, veil thick, soft, white, evanescent; spores ellipsoid, 10–12 × 8–9 μ.

Pileus 10–11 cm. broad; stem 9–15 cm. long, 2–3 cm. thick.

Described from specimens collected by Baker under oaks at Claremont, California. Types not seen.

4. **Armillaria arenicola** sp. nov.

Pileus firm, fleshy, convex to subplane or slightly depressed, gibbous, gregarious, 12–15 cm. broad; surface dry, smooth, glabrous, white or whitish, cremeous at the center; context coarse, white, tasteless; lamellae adnate, becoming sinuate-adnexed or nearly free, ventricose, plane, close, white, changing to rust-colored when bruised; spores globose, smooth, hyaline, 4–6 μ; stipe equal or tapering downward, dry, smooth below, somewhat scaly above the annulus, white tinged with cremeous, 12 cm. long, 3 cm. thick; annulus ample, persistent, membranous, white, attached just above the middle of the stipe.

Type collected in the sand hills among scrubby pines on the immediate coast at Newport, Oregon, November 13, 1911, *W. A. Murrill 1044*. A species remarkable for its size and habit of living in apparently pure sand, although the source of its food is doubtless buried humus. In general appearance, it resembles *Armillaria magnivelaris* Peck.

5. LIMACELLA Earle, Bull. N. Y. Bot. Gard. **5**: 447. 1909

1. **Limacella fulvodisca** (Peck)

Lepiota fulvodisca Peck, Bull. Torrey Club **22**: 198. 1895.

Described from specimens collected by McClatchie among leaves in woods near Pasadena, California, January, 1895.

Pasadena, California, *McClatchie;* Golden Gate Park, San Francisco, California, *Murrill 1101, 1105, 1112, 1119;* Stanford University, California, *Baker 159*.

2. **Limacella roseicremea** sp. nov.

Pileus convex to plane, with a broad umbo, slow to expand, solitary, 6 cm. broad; surface smooth, glabrous, viscid, cream-

colored tinted with rose, margin inflexed, not striate; context white, odor farinaceous; lamellæ free, rather close, arcuate, white; spores globose, smooth, corroded, apparently not maturing, white but not transparent, 4–5 μ; stipe subequal, enlarged at the base, white, fleshy, solid, smooth, glabrous, viscid, often very long, 5–10 $\times$ 0.8–1.2 cm.; veil ample, membranous, persistent, superior, remaining for some time stretched from margin to stipe.

Type collected on the ground in woods near Seattle, Washington, October 20–November 1, 1911, *W. A. Murrill 574*. Also collected in the region at the same time, *W. A. Murrill 534, 585*.

3. **Limacella McMurphyi** sp. nov.

Pileus fleshy, convex, solitary, 3.5–4 cm. broad; surface smooth, glabrous, evidently viscid when fresh, pinkish-cream-colored, not striate; context white, rather thick, with farinaceous taste and odor; lamellae free, crowded, inserted, ventricose, white; spores globose, smooth, hyaline, 3.5–4 μ; stipe slightly tapering upward, subglabrous, even, white, solid, 4–6 $\times$ 0.5–1 cm.; annulus superior, ample, persistent, white.

Type collected among leaves under redwoods near Searsville Lake, California, January 6, 1903, *James McMurphy 36*. The description is drawn from excellent field notes made by the collector. The species is distinguished from the preceding by its crowded, ventricose lamellae, and usually thicker stipe.

6. HYPONEVRIS Paulet, Icon. *pl. 1. f. 3–5*. 1812.

Schizophyllus Fries, Obs. Myc. **1**: 103. 1815.
Schizophyllum Fries, Syst. Myc. **1**: 330. 1821.

HYPONEVRIS ALNEUS (L.) Earle, Bull. N. Y. Bot. Gard. **5**: 412. 1909

Agaricus alneus L. Sp. Pl. 1176. 1753.
Agaricus multifidus Batsch, Elench. Fung. 173. *f. 126*. 1783.
Agaricus radiatus Sw. Prodr. 148. 1788. (Type from Jamaica.)
Schizophyllum commune Fries, Syst. Myc. **1**: 330. 1821.
Schizophyllum umbrinum Berk. Hook. Jour. Bot. **3**: 15. *pl. 1. f. 1*. 1851. (Type from Brazil.)
Schizophyllum fasciatum Pat. Jour. de Bot. **1**: 170. 1887. (Type from Mexico.)

Schizophyllum mexicanum Pat. Jour. de Bot. 1: 171. 1887. (Type from Mexico.)

Schizophyllum Egelingianum Ellis & Ev. Bull. Torrey Club 22: 439. 1895. (Type from Mexico.)

This species is one of the most common of all fungi, occurring on dead wood of various kinds in all lands. *Schizophyllum umbrinum* is a small, multifid, tropical form of this species, which appears much the same in all the collections at Paris and Kew, being represented there by specimens from Brazil, Surinam, French Guiana, Cuba, and Nicaragua. Specimens in the Ellis Herbarium from Nicaragua labeled *Schizophyllum multifidum digitatum* agree with this form. *S. pavonium,* from Mexico, in the Kew Herbarium, and *S. pusillum,* from Australia, at Upsala, are not distinct from *H. alneus,* and the description of *S. exiquum* Miq., from Surinam, leads one to believe that this also is a synonym. *Schizophyllum flabellare* Fries, a name occasionally assigned to American material, applies to a large and very distinct oriental species collected by Alfzelius in Guinea.

Seattle, Washington, *Frye;* Stanford University, California, *Dudley 147, Nohara 65, Miss Patterson 47; Abrams 147.*

7. RESUPINATUS (Nees) S. F. Gray, Nat. Arr. Brit. Pl. 1: 617. 1821

Resupinatus atrocoeruleus (Fries)

Agaricus (*Pleurotus*) *atrocoeruleus* Fries, Syst. Myc. 1: 190. 1821.

A cosmopolitan species easily recognized by its hairy surface and peculiar coloring.

California, *Harper 16.*

8. GEOPETALUM Pat. Hymén. Eur. 127. 1887

1. GEOPETALUM GEOGENIUM (DC.) Pat. Hymén. Eur. 127. 1887

For a description of this species, see MYCOLOGIA for January, 1912.

Seattle, Washington, *Murrill 288, 459, 584, Zeller.*

2. **Geopetalum porrigens** (Pers.)

Agaricus porrigens Pers. Obs. Myc. 1: 54. 1796.

Seattle, Washington, *Murrill 519, Zeller 56.*

3. **Geopetalum oregonense** sp. nov.

Pileus thin, sessile, conchate to flabelliform, convex to expanded, milk-white throughout, gregarious on dead wood, reaching 1 cm.; surface smooth, glabrous, margin entire, incurved when young and on drying; lamellae subdistant, inserted, rather narrow, white, slightly yellowish when dry; spores pip-shaped, smooth, hyaline, 6–7 × 3–4 μ; stipe wanting, the pileus attached to a small, subglobose, white, tomentose mass.

Type collected on fallen dead deciduous branches at Mill City, Oregon, November 9, 1911, *W. A. Murrill 821.* Also collected at Corvallis, Oregon, November 6–11, 1911, on dead deciduous branches, *W. A. Murrill 916, 998.* Related to *Pleurotus candidissimus* (Berk. & Curt.) Sacc.

4. **Geopetalum subsepticum** sp. nov.

Pileus fleshy, thin, flexible, white throughout, dimidiate and conchate to subcircular or reniform, attached to dead grasses, twigs, trunks, and leaves, solitary, scarcely reaching 1 cm. in breadth; surface smooth, glabrous, margin lobed, inflexed on drying; lamellae subdistant, plane, inserted, white, yellowish-brown on drying; spores narrowly oblong, smooth, hyaline, 7–9 × 2–3 μ.

Type collected on dead leaves, etc., in woods near Seattle, Washington, October 20–November 1, 1911, *W. A. Murrill 413.* Also collected near Seattle, Washington, October 20–November 1, 1911, *W. A. Murrill 265, 533.* Related to *Pleurotus septicus,* but spore characters very different.

5. **Geopetalum densifolium** sp. nov.

Pileus fleshy, sessile, conchate to applanate, flabelliform, rather broadly attached, white throughout, gregarious, reaching 2 cm. broad; surface finely pubescent to subglabrous, smooth, margin entire, slightly inflexed on drying; lamellae very broad and very crowded, flaccid, overlapping on drying, white to isabelline, powdered with the spores, inserted, plane; spores ellipsoid, smooth, hyaline, 6–7 × 3.5 μ.

Type collected on dead deciduous wood in woods near Seattle, Washington, October 20–November 1, 1911, *W. A. Murrill 540.*

9. CREPIDOPUS (Nees) S. F. Gray, Nat. Arr. Brit. Pl. 1: 616. 1821

1. CREPIDOPUS OSTREATUS (Jacq.) S. F. Gray, Nat. Arr. Brit. Pl. 1: 616. 1821

Pleurotus ostreatus Quél. Champ. Jura Vosg. 77. 1872.

The white form of this species was found on decayed logs of alder, maple, and holly. I have never collected the dark European form in America.

Seattle, Washington, *Murrill 558;* Muir Woods, California, *Harper.*

2. **Crepidopus connatus** (Berk. & Curt.)

Agaricus (Pleurotus) connatus Berk. & Curt. Proc. Am. Acad. Arts & Sci. 4: 115. 1858.

On an island in Bering Strait, Wright. Type not examined.

3. **Crepidopus serotinus** (Schrad.)

Pleurotus serotinus Quél. Ench. Fung. 149. 1886.

Pleurotus serotinoides Peck, Ann. Rep. N. Y. State Mus. **23**: 86. 1872.

Seattle, Washington, *Zeller 96;* British Columbia, *A. I. Hill 74.*

4. **Crepidopus subsapidus** sp. nov.

Pileus juicy, thin when dry, short-stipitate or attached by a narrow base, imbricate, spatulate to flabelliform, convex or plane, about 5 cm. broad; surface hygrophanous, smooth, glabrous, pallid to avellaneous; lamellae decurrent, somewhat furcate and anastomosing, inserted, rather close and narrow, thin, fragile, white, becoming pale-umbrinous on drying; spores narrowly oblong, pointed, smooth, lilac-tinted in mass, 8–9 × 3–3.5 μ; stipe, when present, short, lateral, white, strigose-tomentose at the base.

Type collected on an oak log in Muir Woods, California, November 22, 1911, *W. A. Murrill 1141.* Allied to the plant called *Pleurotus sapidus* in the eastern United States.

10. PLEUROTUS (Fries) Quél. Champ. Jura Vosg. 77. 1872

PLEUROTUS DRYINUS (Pers.) Quél. Champ. Jura Vosg. 77. 1872

This species is provided with a conspicuous veil and the surface is usually more or less areolate in appearance owing to the breaking up of the cuticle. *Pleurotus corticatus* (Fries) Quél. and *Pleurotus subareolatus* Peck are apparently not distinct. Found in Washington on decayed spots in living trunks of alder and large-leaved maple, sometimes reaching 13 cm. in breadth.

Seattle, Washington, *Murrill 386, 620.*

NEW COMBINATIONS

For the benefit of those accustomed to and desiring to use Saccardo's nomenclature, the following list of new combinations affecting some of the species described as new in this article and the previous one in MYCOLOGIA for March, 1912, is herewith appended.

CREPIDOPUS SUBSAPIDUS	= **Pleurotus subsapidus**
GEOPETALUM DENSIFOLIUM	= **Pleurotus densifolius**
GEOPETALUM OREGONENSE	= **Pleurotus oregonensis**
GEOPETALUM SUBSEPTICUM	= **Pleurotus subsepticus**
HYDROCYBE ARENICOLA	= **Hygrophorus arenicola**
HYDROCYBE CONSTANS	= **Hygrophorus constans**
HYDROCYBE CREMICOLOR	= **Hygrophorus cremicolor**
LIMACELLA MCMURPHYI	= **Lepiota McMurphyi**
LIMACELLA ROSEICREMEA	= **Lepiota roseicremea**
CERIOMYCES MIRABILIS	= **Boletus mirabilis**
CERIOMYCES OREGONENSIS	= **Boletus oregonensis**
CERIOMYCES ZELLERI	= **Boletus Zelleri**
CORIOLUS WASHINGTONENSIS	= **Polystictus washingtonensis**
SCUTIGER OREGONENSIS	= **Polyporus oregonensis**
SPONGIPELLIS SENSIBILIS	= **Polyporus sensibilis**
TYROMYCES CARBONARIUS	= **Polyporus carbonarius**
TYROMYCES CUTIFRACTUS	= **Polyporus cutifractus**
TYROMYCES PERDELICATUS	= **Polyporus perdelicatus**
TYROMYCES PSEUDOTSUGAE	= **Polyporus Pseudotsugae**
TYROMYCES SUBSTIPITATUS	= **Polyporus substipitatus**

NEW YORK BOTANICAL GARDEN.