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Key to the Wood-Decaying Polyporaceae of the East Texas Region

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KEY TO THE WOOD-DECAYING POLYPORACEAE OF THE EAST TEXAS REGION

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COLLECTION AND IDENTIFICATION OF WOODY DECAY FUNGI

The best time for identification of a specimen is when it is first collected. If a manual is not immediately available, then some note-taking is required while the specimen is still fresh. Many species are quick to decay, discolor upon drying or have a particular host species that must be known for proper identification. If nothing else, three things should be recorded:

(1) host tree species;
(2) consistency of texture when fresh; and
(3) color when fresh.

Make sure that all parts of the specimen and all basidiocarps, if more than one is encountered, are collected.

Soft and fleshy fungi need to be identified as soon as possible after collection. Fleshy fungi can be kept in a refrigerator for prolonged periods if kept dry. Plastic bags are good containers but act as a damp chamber, so should be stuffed with paper towels which should be changed regularly to absorb moisture. For fleshy fungi it is best to write down the specimen's description while it is still fresh. Factors to be noted are; (1) shape; (2) size; (3) surface texture; (4) color of surface, undersurface and stem; (5) context thickness and color; (6) spore surface and how it is attached to the cap; (7) date and recent weather patterns; (8) presence or absence of an annulus or volva; (9) spore color; and (10) any unusual distinguishing factor, such as a particularly fragrant odor. If the specimen is a gilled mushroom (Agaricaceae) then a spore print must be made to determine spore color. Spore color can often be determined by observing spore deposits on grass, leaves or other mushrooms beneath the specimen. To make a spore print cut the stem off flush with the gills and lay the cap, gills down, partly on white paper and partly on black paper and cover with a moist paper towel. After a couple of hours a spore print will be made.

Most wood decay fungi are leathery-tough to woody and keep well. However, it is best to dry them by either air drying on a well-ventilated rack or oven drying at a very low temperature (200°F). Specimens should be kept with moth balls to prevent insects from inhabiting them.

Specimen size is measured in centimeters. Measurements of a sessile specimen are made as length by width by thickness; for example, a 10 x 15 x 3 cm specimen is 10 cm long by 15 cm wide by 3 cm thick. Length is the distance the basidiocarp protrudes from the substrata and width is the widest point of the basidiocarp that is parallel to the substrata. Thickness of a cap is measured at a point two-thirds back from the margin towards the point of attachment. Stemmed specimens are measured for cap thickness and width and stem length. In woody specimens a hacksaw is helpful in cutting the cap for determination of context color, thickness or texture and tube length or number of tube layers.

The keys are of mostly dichotomous construction, consisting of a series of choices that eventually single out a specimen to be compared with a species description or photograph. Species have been included

in the keys usually more than once, whenever there exists a possibility of considerable varation within the species. Species of other genera that have a similar physical appearance to a particular genus have been included in that genus' species key. If a specimen has been keyed to a species whose description does not match, retrace the steps taken until a point is reached where another choice can be taken. Technical nomenclature will be defined in the glossary.

As with all keys there will be some ambiguous and confusing choices or a specimen that will not key out. These flaws can only be found and corrected with continued use and time. If any problems arise from use of the keys please report them to Dr. W. T. McGrath, School of Forestry, Stepehn F. Austin State University, Nacogdoches, TX 75962, so corrections can be made.

KEY TO FAMILIES OF WOOD DECAY FUNGI

1. Lower surface of basidiocarps having a radiating series of gills; typically fleshy in texture ..... Agaricaceae,

   Lower surface of basidiocarps having pores, often small, sometimes gill-like, but if so the basidiocarp is corky to woody in texture ..... Polyporaceae, p. 5

   Lower surface of basidiocarp having teeth, spines, warts or granules, not broken up from pores, either large or small in size ..... Hydnaceae,

   Lower surface of basidiocarp smooth or nearly so 2

2. Basidiocarp gelatinous, rubbery or cartilaginous in texture, reviving when remoistened 4

   Basidiocarp never gelatinous or cartilaginous 3

3. Basidiocarp erect, consisting of a singular or many round branches, coral-like; fleshy or brittle in texture ..... Clavariaceae,

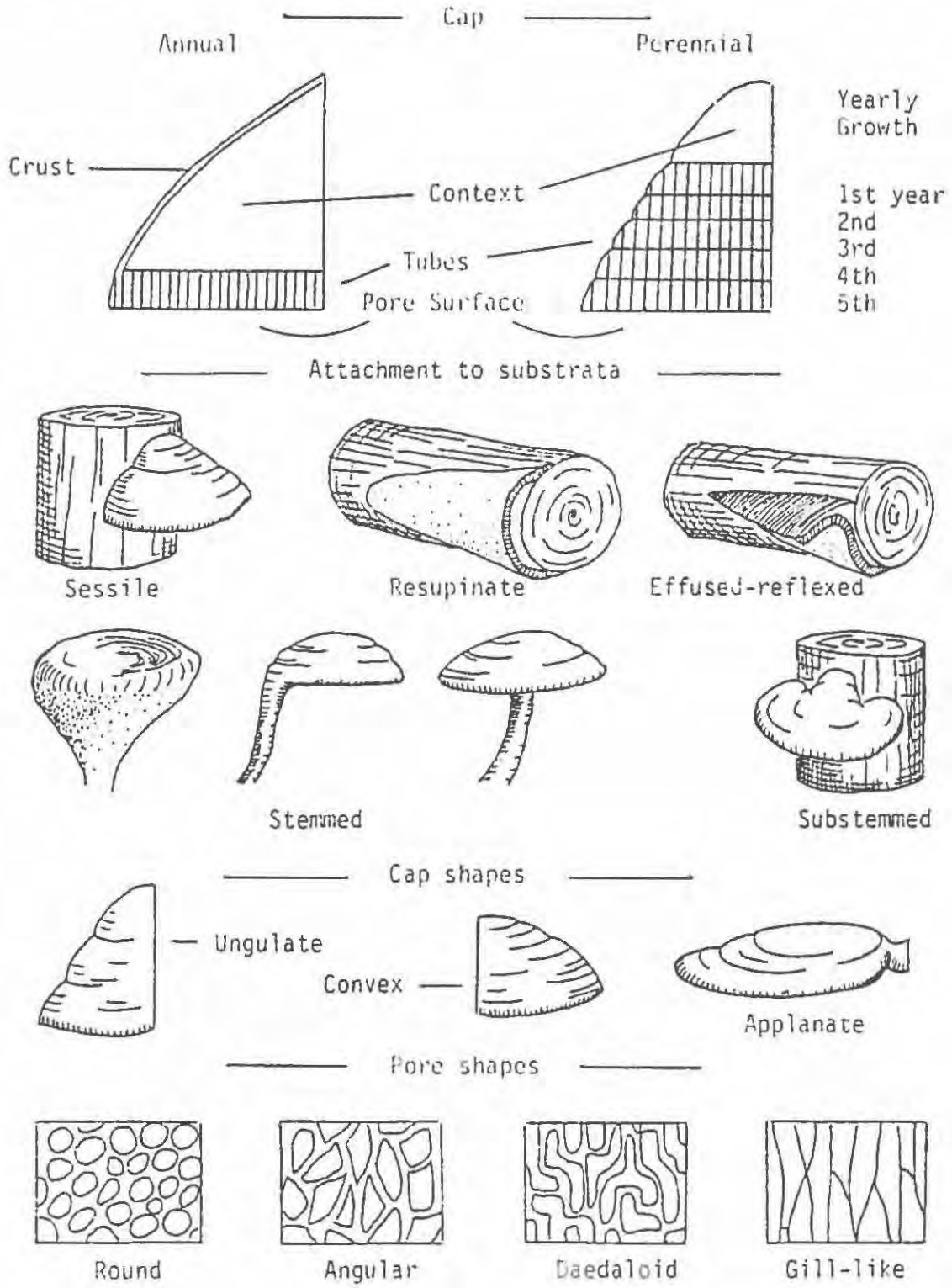
   Basidiocarp usually flattened and leathery in texture ..... Thelephoraceae,

4. Basidiocarp typically ear-shaped and marked with vein-like ridges; grayish velvety with a powdery appearance ..... Auriculariaceae,

   Basidiocarp white or bright colored ..... Dacrymycetaceae,

   Basidiocarp brown or blackish in color ..... Tremellaceae,

Figure 2 Polyporaceae; shapes and forms



POLYPORACEAE
(Pore Fungi)

The family includes those pore fungi whose fruiting bodies are tough, leathery or woody and whose pore layer usually cannot be separated easily from the context. The pores on the undersurface are only exterior openings of tubes bearing spores and in each species these tube mouths, or pores, are a definite shape and size. Occasionally pore walls will break up giving the appearance of teeth or gills. Fruiting bodies can be sessile, stemmed, effused-reflexed or resupinate (Fig. 2). Members of the family can be either perennial or annual, with the annual species growing during the summer and maturing that fall. All are typically wood-inhabiting, only rarely terrestrial. No other family of comparable size is more important economically than the Polyporaceae, causing 90 percent of the more important timber decays in the United States (Overholts 1967). Decay caused by the Polyporaceae can affect any part of the tree.

Key to genera of Polyporaceae

1. Basidiocarp always entirely resupinate, no cap 2

   Basidiocarp sessile, stemmed or effused-reflexed, always has a cap of some extent 3

2. Pores very shallow in mature basidocarps and reduced to shallow pits separated by narrow ridges ..... Merulius, p. 16

   Pores deeper, appear as the opening to definite tubes.. Poria, p. 40

3. Perennial, several layers of tubes; usually very hard and woody ..... Fomes, p. 8

   Annual, tubes in a single layer, rarely 2 or 3 layers 4

4. Tube mouths elongated or sinuous (daedaloid); corky not soft or fleshy, context usually whitish ..... Daedalea, p. 6

   Tube mouths gill-like or somewhat daedaloid; context brown always sessile ..... Lenzites, p. 15

   Tube mouths very shallow and separated by narrow ridges; membranous or leathery..... Merulius, p. 16

   Tube mouths poroid, if verging toward daedaloid then soft and fleshy; sessile or stemmed 5

5. Pores hexagonal, arranged in rows radiating out from stem, stemmed or slightly so ..... Favolus, p. 7

   Pores not hexagonal in rows, sessile or stemmed 6

6. Basidiocarp incrusted with a varnish-like crust....Ganoderma, p. 14

   Basidiocarp not incrusted; stemmed or slightly so..Polyporus, p. 17

   Basidiocarp not incrusted; always sessile 7

7. Tubes not in a distinct layer, sunken to unequal depths into the context so that their bases do not form a straight line ..... Trametes, p. 40

   Tubes in a distinct layer, their bases forming an unbroken straight line ..... Polyporus, p. 17

Daedalea Pers. ex Fries

Fruiting bodies annual, sometimes reviving for several seasons in some species, sessile to effused-reflexed, corky or very firm-corky, white to wood color. Context white to brown, tubes never layered, not forming a distinct layer. Tube mouths typically elongated or sinuous (daedaloid) in shape, sometimes toothed, gill-like or poroid. A small genus with only six wood-inhabiters reported in East Texas. Because of physical similarities, some species that could be confused with Daedalea are included in the key.

Key to species of Daedalea

1. Cap surface velvety, hairy, or tomentose 2

   Cap surface mostly glabrous or finely tomentose 5

2. Context white, cap surface white or gray sometimes drying yellowish; on hardwoods 3

   Context rusty-brown or darker, cap surface brown to blackish 4

   Context brownish, cap surface gray or grayish-black; on conifers only ..... Polyporus abietinus var. abietis, p. 33

3. Cap 1 cm or more thick; tubes 1 cm or more long ..... Polyporus obtusus, p. 37

   Cap less than 0.5 cm thick; tubes less than 0.5 cm long ..... D. unicolor, p. 7

4. Cap thin and flexible; pores more or less toothed and usually with a greenish tint; on hardwoods only ..... D. farinacea, p. 7

   Cap woody; pore surface daedaloid, never toothed..Fomes pini, ... 13

5. Pores or interspaces between gills 1 mm or more broad, pore walls thick and obtuse; causes a brown rot 6

   Pores 1 - 3 per mm or if gilled less than 1 mm apart, pore walls thin; causes a white-rot 7

6. On living or dead Juniperus only ..... D. juniperina

   On other coniferous substrata ..... D. berkeleyi

7. Cap surface and context white ..... D. ambigua

   Cap surface and context pale whitish or wood-colored...D. confragosa

Daedalea ambigua Berk. - Cap up to 20 x 35 x 3 cm, sessile, white or whitish drying grayish to yellowish-white, minutely velvety to glabrous, margin often zonate; context whitish. Pores 2 - 3 per mm, white drying yellowish; daedaloid. Found on stumps, logs and trunks of hardwoods, (fig. 31).

Daedalea berkeleyi Sacc. - Cap up to 5 x 10 x 2.5 cm, sessile convex to nearly plane, rusty brown, compactly tomentose soon becoming glabrous, somewhat furrowed or zoned; context dark rusty brown. Pores 1 - 2 per mm, brown, poroid to daedaloid or somewhat gilled. Found on dead Pinus.

Daedalea confragosa Bolt. ex Fries - Cap up to 10 x 15 x 3 cm, sessile or effused-reflexed, applanate to nearly convex, leathery, grayish to brownish sometimes blackish with age, pubescent to glabrous, zonate, often rough; context whitish tan. Pores 2 - 2.5 per mm, whitish to tan, pinkish where handled, elongated often gill-like. Found on dead hardwoods, occasionally on living trees, (fig. 32).

Daedalea farinacea (Fries) Overh. - Cap up to 1 x 4 x 0.2 cm, sessile effused-reflexed to resupinate, flexible, dark brown, tomentose, zonate; context rusty brown. Pores 2 per mm, greenish, daedaloid to toothed. Found on dead hardwoods.

Daedalea juniperina Murr. - Cap up to 7 x 8 x 4 cm, sessile to resupinate, gray to cinnamon, darker at the base, compactly tomentose; context white. Pores 1 per mm or less, often gill-like, whitish. Found on living trees, stumps or lumber of Juniperus virginiana L., (fig. 33).

Daedalea unicolor Bull. ex Fries - Cap up to 6 x 8 x 0.5 cm, sessile or effused-reflexed, whitish to brown-black with age, densely hirsute, zonate; context whitish. Pores 2 - 3 per mm, often toothed, white to grayish. Found usually on dead hardwoods, (figs. 34 and 35).

Favolus Beauv. emend. Fries

Fruiting bodies annual, more or less stemmed, stem often reduced and lateral, fleshy tough to leathery, thin and applanate. Pores typically hexagonal or radially elongated to almost gill-like, large. A small and obscure genus found in the Gulf States. Though none have been reported, two are likely to occur in East Texas. Because of physical similarities some species that could be confused with Favolus are included in this key.

Key to species of Favolus

1. Pores small, averaging 3-4 per mm; cap less than 2 cm broad ..... F. rhipidium

   Pores larger, 2 or less per mm 2

2. Cap densely hirsute-tomentose .....Polyporus pinsitus, p.37

   Cap glabrous or nearly so 3

3. Stem central; cap yellowish-brown .... Polyporus arcularius, p. 34

   Stem lateral or eccentric; cap white ..... F. brasiliensis

Favolus brasiliensis Fries - Cap up to 8 cm broad and 0.3 cm thick, white to whitish, glabrous sometimes pubescent at the base, context white. Stem obscure and lateral to distinct and central. Pores 2-0.3 per mm, large and often elongated, yellowish-white. Found on dead hardwoods, (figs. 37 &38).

Favolus rhipidium (Berk.) Sacc. - Cap up to 2 cm broad and 0.4 cm thick, cream white becoming reddish to red when dry; context white. Stem lateral. Pores 3-4 per mm, white becoming red when dry. found on dead hardwoods.

Fomes (Fries) Kickx

Fruiting bodies perennial, sessile, applanate to ungulate or resupinate, hard and woody, sometimes tough and watery the first year, relatively heavy, usually furrowed from the yearly growth. New layers of pores develop yearly forming annual layers; spores white to dark brown. The genus causes much heart-rot and slash decay, occasionally attacking structural timber. Due to its perennial nature specimens can be found any time of the year. Because of physical similarities, some species that could be confused with Fomes are in this key.

Key to the species of Fomes

1. Context white or bright-colored, pinkish to orange 2

   Context dark brown to dark yellowish-brown 9

2. Context white or whitish 3

   Context pinkish, flesh-colored, or yellow-green 4

   Context reddish-orange; found on living Juniperus only ..... F. juniperinus

3. Pores 2-3 per mm, yellowish-white; usually on conifers ..... F. annosus

   Pores 5-8 per mm, pinkish-white; usually on hardwoods ..... F. geotropus

4. Cap incrusted with a horny crust 5

   Cap not incrusted or only slightly so 7

5. Cap 10 cm or more broad, thick horny crust; tubes definitely stratified ..... Ganoderma applanatus, p. 14

   Cap usually smaller, somewhat incrusted; tubes definitely not stratified 6

6. Context whitish; on conifers ..... F. annosus

   Context flesh to wood color; on hardwoods ..... F. fraxineus

7. Context gray, flesh or wood color 8

   Context duplex in color, dark brown to olive with a paler zone above ..... Polyporus supinus, p. 39

8. Cap smoky-gray; pores pinkish-cinnamon or darker; causes a brown rot ..... F. meliae

   Cap with a reddish coloration; pores flesh, gray to brownish; causes a white rot ..... F. fraxineus

9. Cap incrusted 10

   Cap not incrusted 16

10. Cap applanate or only somewhat convex 11

    Cap ungulate or convex 13

11. Cap glabrous; context uniformly brown 12

    Cap margin velvety-tomentose; context duplex in color, the lower half being darker ..... Polyporus supinus, p. 39

12. Crust thin and easily indented; growth develops from last season's cap giving an almost stemmed appearance ..... F. lobatus

    Crust typically hard and horny; cap growth normal ..... Ganoderma applanatum, p. 14

13. Crust indistinct; cap reddish to reddish-brown; context very hard ..... F. calkinsii

    Crust hard and horny often 1 mm or more thick; context corky 14

14. Tubes distinctly stratified with the strata separated by layers of context ..... Ganoderma applanatum, p. 14

    Tubes not distinctly stratified 15

15. Cap usually convex, sometimes slightly ungulate. Pores 4-6 per mm ..... F. marmoratus

    Cap stongly ungulate, sometimes approaching convex. Pores 3 per mm ..... F. fomentarius

16. Cap applanate to somewhat convex 21

    Cap convex to ungulate 27

    Cap resupinate to effused-reflexed 17

17. Older layer of tubes conspicuously white-stuffed 18

    Older layer of tubes gray or brownish 20

18. Context shiny bright yellow brown; tubes in distinct layers ..... F. robustus

    Context brownish; tubes not distinctly layered 19

19. On living or dead Prunus only ..... F. pomaceus

    On a variety of dead hardwoods ..... F. igniarius var. laevigatus

20. Cap thin, less than 1.5 cm; pores 5-7 per mm ..... F. conchatus

    Cap thicker; pores 8-10 per mm ..... F. densus

21. Context bright shiny yellow-brown 23

    Context brown to yellow-brown, not bright 22

22. Cap thick, 1.5-15 cm; on Robinia ..... F. rimosus

    Cap thick, 1-15 cm; on Pinus ..... F. pini

    Cap thinner, rarely more than 1.5 cm; on hardwoods 24

23. Tubes in distinct layers, 3-10 mm long ..... F. robustus

    Tubes not in distinct layers, less than 3 mm long; pore surface with a velvety feel ..... F. torulosus

24. Basidiocarp very hard and woody; often zonate-furrowed 25

    Basidiocarp corky-tough; few furrows near margin 26

25. On Crataegus; cap brown to blackish ..... F. langloisii

    On a variety of hardwoods; cap grayish to yellowish-brown becoming blackish with age ..... F. conchatus

26. Context uniformly yellowish-brown ..... Polyporus gilvus, p. 36

Context duplex in color, dark-brown or olive with a lighter shade above ..... Polyporus supinus, p. 39

27. Pores 2-3 per mm, often daedaloid ..... F. pini

Pores 4 or more per mm, not daedaloid in shape 28

28. Context thin, less than 1 cm 29

Context thicker 30

29. Pore surface smoke color; context duplex in color, dark brown or olive with a lighter shade above .... Polyporus supinus, p. 39

Pore surface brown; context brown; on Prunus ..... F. pomaceus

Pore surface honey-yellow to olive; context rusty to yellow-brown ..... F. praerimosus

30. Context bright shiny yellow-brown 31

Context brown or yellow-brown, not bright 32

31. Tubes 2.5 mm in length; on living Juniperus ..... F. texanus

Tubes 3-10 mm in length, becoming whitish-stuffed with age; on hardwoods ..... F. robustus

32. Pores 4-6 per mm; cap brown becoming blackish; spores brown 33

Pores 6-8 per mm; cap reddish coated over with black; spores hyaline ..... F. calkinsii

33. Found on Robinia; pores thick walled, circular shape yellow-brown ..... F. rimosus

Found on Quercus; pores thin walled, subangular in shape, brown ..... F. everhartii

Found on Pinus; pores thick walled circular shape orange-brown ..... F. pini

Fomes annosus (Fries) Cooke - Cap up to 15 x 25 x 7 cm, effused-reflexed, resupinate or sometimes applanate, often appearing distorted in shape with duff or litter intermingled; light gray to dark brown; crust thin; context white. Pores 2-4 per mm, white or yellowish. Found at bases of dead or dying Pinus, typically intermingled in litter, occasionally on logs or structural timber, common; (fig. 38); similar to Trametes serialis.

Fomes calkinsii (Murr.) Sacc. & D. Sacc. - Cap up to 13 x 13 x 7 cm, convex to ungulate, glabrous, reddish coated over with black; context hard, bright yellow-brown, tube layer indistinct. Pores 6-8 per mm, yellow-brown. Found only on living Fagus and Quercus.

Fomes conchatus (Pers. ex Fries) Gill. - Cap up to 7 x 12 x 1.5 cm, resupinate or sometimes thinly applanate, hard and woody, grayish to yellowish brown, margin yellowish and tomentose; context yellowish brown. Pores 5-7 per mm, yellowish brown. Found on dead hardwoods; similar to F. pomaceus and Polyporus gilvus.

Fomes densus Lloyd - Cap less than 5 cm thick, resupinate, occasionally reflexed, very hard and heavy, margin orangish, somewhat tomentose; practically no context. Pores 8-10 per mm, dark yellowish-brown. Found on undersurface of hardwood logs; similar to F. conchatus and F. igniarius var. laevigatus, (fig. 40).

Fomes everhartii (Ell. & Gall.) von Schrenk and Spaulding - Cap up to 15 x 36 x 15 cm, ungulate to convex, grayish-black, furrowed, rough and rimrose with age; margin brown, slightly tomentose; context rusty-brown. Pores 4-6 per mm, brown. Found usually on living trunks of Quercus, occasionally on other hardwood logs, species has a northern range, but could extend into Texas, (fig. 41); similar to F. robustus and F. praerismosus.

Fomes fomentarius (L. ex Fries) Kickx - Cap up to 15 x 20 x 15 cm, ungulate, gray or grayish-black, velvety when young becoming glabrous with age, crust thick, zonate or furrowed. Context soft, fiberous and wooly in appearance when broken, brown, 0.3-3 cm thick, tubes unusually long in proportion, 0.5-6 cm. Pores 3-4 per mm, grayish brown. Found on dead or living hardwoods, reported in Texas but more common in the northern United States; similar to F. marmoratus, (fig. 42).

Fomes fraxineus (Bull. ex Fires) Cooke - Cap up to 10 x 20 x 6 cm, applanate to convex, corky firm somewhat watery, light colored with reddish stains, glabrous, crust thin and indistinct, surface rough; context flesh to pale wood color. Pores 4-6 per mm, fleshy-white to brown. Found on Fraxinus close to the ground line, occasionally on other hardwoods.

Fomes geotropus Cooke - Cap up to 15 x 25 x 8 cm, applanate or strongly convex, white to tan, subtomentose to glabrous; context white drying yellowish. Pores 5-8 per mm, pinkish drying grayish. Found on living or dead hardwoods.

Fomes igniarius (L. ex Fries) Kickx var. laevigatus (Fries) Overh. - Cap up to 3 cm thick, resupinate; context brown, older tubes white-stuffed. Pores 4-7 per mm, gray-brown to brown. Found on dead hardwoods; similar to F. densus.

Fomes juniperinus (von Schrenk) Sacc. & Syd. - Cap up to 10 x 15 x 14 cm, ungulate, yellowish orange becoming blackish with age, compactly tomentose to glabrous becoming rough and rimose with age; context reddish orange. Pores 2-3 per mm, yellow brown. Found on living trunks of Juniperus.

Fomes langloisii (Murr.) Sacc. & Sacc. - Cap up to 12 x 12 x 1.5 cm, applanate, brown to blackish, very hard and woody, compactly tomentose to glabrous; context very thin, golden brown. Pores 6-8 per mm, yellowish brown. Found only on Crataegus in Louisiana; similar to F. densus.

Fomes lobatus (Schw.) Cooke - Cap up to 12 x 15 x 4 cm, applanate, glabrous, rusty brown or darker, margin whitish, crust thin but distinct; context brown. Pores 4-5 per mm, yellowish-white, darker where bruised. Found on hardwood logs and stumps; similar to Ganoderma applanatum.

Fomes marmoratus (Berk. & Curt.) Cooke - Cap up to 15 x 20 x 10 cm, convex to somewhat ungulate, gray to grayish-black, crust thick, zonate or furrowed; context tough hard-corky, cinnamon-brown or bright yellowish brown. Pores 4-5 per mm, grayish brown. Found on dead or living hardwoods, common on Carya; considered to be the southern analogy of F. fomentarius.

Fomes meliae (Underw.) Murr. - Cap up to 5 x 10 x 5 cm, convex or applanate, corky when fresh drying hard, pinkish-gray to smoky, glabrous to pubescent, rough; context pale wood color, tubes distinctly layered. Pores 4-5 per mm, pinkish-cinnamon or darker. Found on dead hardwoods, common on Fraxinus.

Fomes pini (Thore ex Fries) Karst. - Cap up to 15 x 25 x 15 cm, ungulate sometimes approaching applanate in northern species, tomentose becoming glabrous, blackish, rough, cracked and irregular, margin with rusty-brown tomentum; context dull yellowish brown. Pores daedaloid, 2-3 per mm, or poriod, 4-5 per mm, orange brown. Found on living trunks or occasionaly on fallen logs of Pinus, common, (fig. 44).

Fomes pomaceus (Pers.) Lloyd - Cap up to 6 x 10 x 3 cm, typically resupinate or effused-reflexed to ungulate, glabrous, gray to grayish-black, margin finely tomentose and gray-brown; context brown, older tubes often white-stuffed. Pores 4-6 per mm, brown. Found only on Prunus, usually attached to the lower part of the branch, (fig. 43); similar to F. densus and F. igniarius var. laevigatus.

Fomes praerimosus (Murr.) Sacc. & D. Sacc. - Cap up to 12 x 20 x 12 cm, ungulate, brown to black, very rimose and rough with age, compact tomentum on margin; context rusty-brown, very thin with the tubes eventually occupying the entire thickness. Pores 5-6 per mm, yellow becoming olive. Found on living Quercus and Juglans, common in West Texas; considered synonymous to F. everhartii, separable by the lighter colored pore surface.

Fomes rimosus (Berk.) Cooke - Cap up to 20 x 30 x 15 cm, applanate to ungulate, rich brown to black, rimose, margin compactly tomentose and rich brown; context yellowish brown. Pores 4-6 per mm, yellowish brown or darker. Found mostly on living or dead Robinia, noted on other hardwoods, (fig. 45).

Fomes robustus Karst. - Cap up to 13 x 20 x 12 cm, typically resupinate and small or convex to ungulate and large, yellow-brown to blackish, glabrous becoming rimose; context bright shiny yellow brown with whitish-stuffed tubes that are definitely stratified. Pores 4-6 per mm, yellow-gray brown. Found on living or dead hardwoods, common on Betula, sometimes on dead conifers, (fig. 46). Similar to F. everhartii and F. calkinsii whose tubes are not as layered.

Fomes texanus (Murr.) Hedgcock & Long - Cap up to 6 x 10 x 10 cm, ungulate, dark yellowish-brown, glabrous becoming rimose, margin lighter in color and tomentose; context bright subshiny yellow brown, tubes distinctly stratified. Pores 4-6 per mm, gray brown or darker. Found only on living Juniperus, common in West Texas. Fomes torulosus (Pers.) L

Fomes torulosus (Pers.) Lloyd - Cap up to 10 x 10 x 3 cm, convex to applanate, rusty yellow-brown becoming grayish black, compact rusty tomentum that irregularly weathers away; context bright yellow brown, darkening with age. Pores 6-8 per mm, velvety, purplish brown. Found on wounded or dying hardwoods, uncommon.

Ganoderma Karst.

Fruiting body sessile, substemmed or stemmed, typically with a varnish-like crust on the cap and stem, and brown spores. The genus is closely related to Polyporus and Fomes and is included in their keys. Only three species are found in the East Texas area.

Key to species of Ganoderma

1. Cap gray or grayish black, dull ..... G. applanatum

   Cap red, orange or yellow, shiny 2

2. Cap dark yellow to somewhat redish, zonate; context white ..... G. curtisii

   Cap dark red, few zones or furrows; context whitish to brownish ..... G. lucidum

Ganoderma applanatum (Pers. ex Wallr.) Karst. - Cap up to 30 x 50 x 10 cm, applanate to ungulate, glabrous, gray to grayish black, furrowed; crust typically thick sometimes thin and cracked; context brown, typically with dark zones between successive pore layers. Pores 4-6 per mm, white drying yellowish, bruising darker when handled. Found on dead and living hardwoods. (fig. 39).

Ganoderma curtisii (Berk.) Karst. - Cap up to 12 x 20 x 3 cm, always stemmed, corky, incrusted or varnished, dark yellow becoming yellowish with some dull red when mature, glabrous, zonate; context white, single pore layer with a dark zone above. Pores 4-5 per mm, white to brownish, bruising darker when fresh. Stem lateral and incrusted. Found on stumps and trunks of hardwoods, (fig. 47).

Ganoderma lucidum (Fries) Karst. - Cap up to 20 x 35 x 8 cm, either sessile or stemmed, corky, covered with a thin coat of a shiny varnish-like substance, usually dark red or reddish, few zones or furrows, often wrinkled; context whitish to pinkish cinnamon. Pores 4 per mm, whitish, yellowish or dull brown; tubes in a single layer. Stem when present usually lateral and heavily varnished. Found at base or around living trees, stumps or roots of hardwoods, common, (fig. 48).

Lenzites Fries

Fruiting bodies annual or sometimes persisting for several years, sessile, leathery drying rigid, usually applanate or effused-reflexed and semicircular to circular in shape. Pores typically strongly elongated forming thick gills, sometimes daedaloid to poroid. Three species have been reported in East Texas. Because of physical similarities, some species that could be confused with *Lenzites* are included in the key.

Key to species of *Lenzites*

1. Context and gills white or light colored 2

   Context and gills rusty or dark brown 3

2. Cap stongly pubescent ..... *L. betulina*

   Cap glabrous to finely pubescent ..... *Daedalea confragosa* p.7

3. Context less than 1 mm thick ..... *L. trabea*

   Context 1-3 mm thick 4

   Context 3-7 mm thick ..... *Daedalea berkeleyi* p.7

4. Pores poroid to daedaloid; dull colors; found usually on hardwoods ..... *L. trabea*

   Pores gill-like sometimes daedaloid; bright colors; found usually on conifers ..... *L. saepiaria*

Lenzites betulina (L. ex Fries) Fries - Cap up to 8 x 12 x 1.5 cm, applante to effused-reflexed, grayish to brownish, many multicolored zones, hirsute to tomentose; context white. Pores usually gilled, 1 mm apart, often branched, sometimes approaching poroid, white. Found on dead hardwoods, occasionally on dead conifers, common, (fig. 50).

Lenzites saepiaria (Wulf. ex Fries) Fries - Cap up to 7 x 10 x 1 cm, applanate to effused-reflexed, semicircular, bright rusty to tobacco colored, zonate, growing margin whitish orange-yellow, tomentose; context yellowish rusty to brown. Pores gilled, 0.5-1 mm apart or sometimes daedaloid, poroid to toothed, brown. Found on dead conifers, occasionally on hardwoods, common on coniferous wood in service, (fig. 49).

Lenzites trabea Pers. ex Fries - Cap up to 5 x 8 x 0.8 cm, applanate to convex or effused-reflexed, gray to brown becoming blackish if persisting for more than a year, compactly tomentose becoming glabrous, zonate; context dark yellow brown. Pores daedaloid or poroid, rarely gilled, 2-3 per mm, brown. Found on dead hardwoods, occasionally on conifers.

Merulius Haller ex Fries

Fruiting bodies resupinate, effused-reflexed or sessile; the lower surface with pores reduced to shallow pits, wrinkles or wavy folds, waxy-soft, membranous to leathery. Pore surface can usually be pulled off as a sheet from the context. Spores colorless or brownish. Causes a serious dry rot of timber and some slash decay.

Key to species of Merulius

1. Basidiocarp sessile 2

   Basidiocarp resupinate 5

   Basidiocarp effused-reflexed or somewhat resupinate 3

2. Basidiocarp pink, soft drying somewhat leathery ..... M. incarnatus

   Basidiocarp brownish, tough drying horny ..... M. wrightii

3. Basidiocarp fleshy-gelatinous drying horny ..... M. tremellosus

   Basidiocarp pliable when dry; on Pinus ..... M. ambiguus

   Basidiocarp not as above 4

4. Basidiocarp incrusted, leathery, somewhat tomentose; wine colored in KOH ..... M. pallens

   Basidiocarp soft, thin, villose ..... M. corium

5. Pore surface rough and somewhat toothed ..... M. americanus

   Pore surface wrinkled and vien-like ..... M. brassicaefolius

Merulius ambiguus Berk. - Fruiting body 2-6 cm broad, reflexed margin 2-10 mm broad, round, narrowly reflexed, sometimes resupinate, leathery-soft; reflexed portion tomentose, whitish to gray. Pore surface with radial folds that branch forming shallow angular pores 1 mm broad, olive to brownish. Found on bark of Pinus during summer.

Merulius americanus Burt. - Fruiting body 3-15 cm broad, resupinate, membranous, thin and fragile, dry. Pore surface with folds developing into rough teeth, pores 1-1.5 mm broad and 0.5 mm deep, drying bone-brown. Found on undersurface of coniferous logs and boards in moist places in fall, (fig. 51).

Merulius brassicaefolius Schw. - Fruiting body up to 10 cm broad, resupinate, membranous, easily separable from the substrata, margin wavy. Pore surface wrinkled with veins, the center almost pore-like, smoky-drab. Found on wood in cellars during winter, uncommon, (fig. 51).

Merulius corium Fries - Fruiting body 1-4 cm broad, reflexed margin 1-3 mm broad, leathery-soft, thin; reflexed portion villose and white. Pore surface with crossing ridges about 3 mm broad, shallow, drying pinkish-buff to cinnamon. Found on bark or dead limbs of hardwoods throughout the year, common, (fig. 52).

Merulius incarnatus Schw. - Fruiting body up to 4 cm broad and 8 cm long, sessile, fan-shaped, often overlapping, soft drying somewhat leathery. Cap tomentose, pinkish drying to pinkish-buff, margin wavy. Pore surface with many branched folds, drying flesh-yellow to pinkish-buff. Found on logs and stmps of hardwoods, common in the Mississippi river valley.

Merulius pallens Schw. - Fruiting body up to 5 cm broad and effused up to 15 cm, resupinate with a long reflexed cap on all sides; reflexed portion minutely tomentose and whitish. Pore surface with irregularly crossed shallow ridges about 2-3 per mm, incrusted, drying a brownish-wine color; turns a deep wine color in KOH. Found on fallen branches of hardwoods.

Merulius tremellosus Schrader - Fruiting body 2-6 cm broad reflexed margin 1.5 cm broad, resupinate soon becoming reflexed, fleshy gelatinous; reflexed portion tomentose and white. Pore surface with folds forming deep pores 1 mm broad, subdividing into smaller pores, somewhat translucent drying cinnamon-buff to red. Found on decaying logs and stumps of hardwoods in fall, common.

Merulius wrightii Berk. - Fruiting body up to 5 mm broad, usually smaller, sessile, kidney-shaped attached by a point, tough drying horny. Cap minutely tomentose drying pinkish-cinnamon, margin incurved. Pores surface with few radiating branching folds forming elongated pores about 4 per mm. Found on wood, rare.

Polyporus Micheli ex Fries

Fruiting bodies typically annual occasionally reviving for two or three years, found either sessile, effused-reflexed, resupinate or stemmed, fleshy to woody. Tubes typically in a single layer at equal depth into the context, sometimes two or three layers will appear in some species. Pores circular, angular to somewhat daedaloid. A large and diverse genus. Because of physical similarities some species that could be confused with Polyporus are included in this key.

Key to the species of Polyporus

I. Context white, whitish, light yellow or pale light brown; spores hyaline ..... Section I

II. Context pinkish, yellowish-red, orange or yellow; spores hyaline ..... Section II, p. 28

III. Context yellowish-brown to dark brown; spores either hyaline or brown ..... Section III, p. 29

Section I

1. Basidiocarp stemmed or substemmed 2

   Basidiocarp sessile or effused-reflexed 26

2. Cap white, whitish or gray, not definitely colored 3

   Cap definitely colored, not changing when dry 17

3. Two or more caps on branches of a common stem 4

   Cap single, stem simple and unbranched 7

4. Cap less than 0.3 cm thick and 3 cm broad; common in small clusters ..... P. fimbriatus

   Cap thicker and broader 5

5. Pores 0.5-1 per mm, white discoloring somewhat upon drying ..... P. berkeleyi

   Pores 1-3 per mm 6

   Pores 4-7 per mm, white turning black upon drying or where bruised ..... P. giganteus

6. Pore surface white to yellowish, not discoloring ..... P. frondosus

   Pore surface white becoming reddish where bruised ..... P. biennis

7. Stem lateral or poorly developed 8

   Stem central and well developed 14

8. Context having a soft upper layer with a firm layer next to the tubes; basidiocarp often distorted in shape ..... P. biennis

   Context uniform in texture 9

9. Basidiocarp small, less than 2 cm broad; pores white drying brick-red .....Favolus rhipidium p.8

   Basidiocarp larger 10

10. Cup-like structure found at the base of the cap ..... P. conchifer

    Not as above 11

11. Pores 6-8 per mm; cap less than 0.3 cm thick ..... P. mutabilis

    Pores 5 or less per mm, cap thicker 12

12. Pores large, less than 3 per mm 13

    Pores small, 3-5 per mm; context yellow in KOH ..... P. amygdalinus

13. Pores 1 or less per mm, angular or sometimes toothed...P. berkeleyi

    Pores 2-3 per mm, daedaloid .....Daedalea ambigua p.7

14. Cap conspicuously multizonate ..... P. mutabilis

    Cap not at all zonate 15

15. Context having a soft upper layer with a firm layer next to the tubes; basidiocarp often distorted in shape ..... P. biennis

    Context uniform in texture 16

16. Cap 1 cm or more broad, the margin strongly fringed with coarse hairs ..... P. tricholoma

    Cap less than 1.5 cm broad, margin not hairy, pore surface discoloring red .....Favolus rhipidium p.8

17. Cap and stem covered with a varnish-like crust 18

    Cap and stem not varnished or shining 19

18. Cap dark yellow to tan when mature .....Ganoderma curtisii p.14

    Cap and stem reddish-black .....Ganoderma lucidum p.14

19. Several caps on branches of a common stem 20

    Cap single; stem simple, unbranched 21

20. Cap salmon, yellow or orange, fading upon drying, glabrous ..... P. sulphureus

    Cap grayish, unchanging upon drying ..... P. frondosus

    Cap tan, unchanging, villose-tomentose; pores bruising red ..... P. biennis

21. Context having a soft upper layer with a firm layer next to the tubes; basidiocarp often distorted in shape ..... P. biennis

    Context uniform in texture 22

22. Pores less than 4 per mm 23

    Pores 4-8 per mm 24

23. Pores 1 mm or more long, radiating outward from a well developed stem ..... P. arcularius

Pores smaller and not radiating; stem eccentric; cap less than 2 cm broad, reddish .....Favolus rhipidium p.8

24. Margin of cap fringed with coarse hairs ..... P. tricholoma

Margin of cap not as above 25

25. Pores 6-8 per mm, white drying yellowish ..... P. mutabilis

Pores 4-5 per mm, gray to light bay ..... P. elegans

Pores 3-4 per mm, white drying red .....Favolus rhipidium p.8

Pores 3-4 per mm, whitish drying yellowish ..... P. amygdalinus

26. Inhabiting wood of conifers 27

Inhabiting wood of hardwoods 55

27. Cap definitely colored in fresh plants 28

Cap white, whitish or gray 35

28. Cap salmon or orange, fading upon drying, 10 cm or more broad, fleshy drying brittle; causes a brown cubical rot...P. sulphureus

Not as above 29

29. Cap 1.5 cm or more thick, cap pinkish, pores reddish .... P. mollis

Cap less than 1.5 cm thick 30

30. Cap glabrous or with a slight tomentum, largely resupinate, less than 1 cm long .....Trametes serialis p.42

Cap velvety, hirsute or tomentose 31

31. Pores averaging 2 or less per mm 32

Pores averaging 3 or more per mm 33

32. Cap multizonal; pore surface whitish, grayish to blackish ..... P. pinsitus

Cap not multizonal; pore surface purplish to brownish ..... P. versatilis

33. Context 1-6 mm thick, cap uniform in color ..... P. hirsutus

Context less than 1 mm thick, cap not uniform in color 34

34. Cap with unicolorous zones; tubes soon breaking up into teeth ..... P. pargamenus

    Cap typically multizonal with multicolored zones; pore surface even ..... P. versicolor

35. Context 1 mm or less thick 36

    Context more than 1 mm thick 46

36. Cap strongly pubescent or tomentose 37

    Cap glabrous or less markedly pubescent 42

37. Pores averaging 2 or less per mm 38

    Pores averaging 2-4 per mm 40

38. Cap strongly multizonal ..... P. pinsitus

    Cap not multizonal 39

39. Cap soft and fleshy; pores shallow and reddish ..... Merulius tremellosus p.17

    Cap leathery; pores toothed and purplish ..... P. versatilis

    Cap corky; pores large and white ..... Trametes sepium p.42

40. Pores even, never toothed ..... P. hirsutus

    Pores uneven, often toothed 41

41. Cap with long stiff hairs, strongly zoned ..... Daedalea unicolor p. 7

    Cap villose-tomentose, somewhat zoned ..... P. abietinus

    Cap velvety-tomentose, margin zonate ..... P. pargamenus

42. Pores 4 or more per mm; on Taxodium 43

    Pores averaging 4 or less per mm 44

43. Cap discoloring brown when dry; strongly radially furrowed ..... P. drummondii

    Cap not discoloring when dry ..... P. tenuis

44. Cap strongly zonate ..... P. pargamenus

    Cap not strongly zonate 45

45. Pores 1-2 per mm; cap pale brown to whitish ..... Trametes sepium p.42

Pores 2-4 per mm; cap white aging brown ..... Trametes serialis p.42

46. Pore surface flesh to reddish-purple, 5-8 per mm ..... P. dichrous

Entire basidiocarp becoming pinkish to reddish upon drying or where handled ..... P. mollis

Not as above 47

47. Pores averaging 1-3 per mm 48

Pores averaging more than 3 per mm 49

48. Cap rough, fibrillose or tomentose; causes a soft yellow rot ..... P. biformis

Cap finely tomentose to glabrous; causes a brown cubical rot ..... Trametes sepium p.42

49. Cap glabrous or only inconspicuously pubescent 50

Cap strongly pubescent or tomentose 52

50. Pore surface smoke-colored or blackish ..... P. adustus

Pore surface white or whitish 51

51. Cap usually 0-2 cm long ..... P. anceps

Cap usually 5-10 cm long ..... P. palustris

52. Cap distinctly zonate 53

Cap azonate ..... P. palustris

53. Cap less than 0.5 cm thick; pores becoming toothed....P. pargamenus

Cap thicker, pores never becoming toothed 54

54. Pore surface blackish; cap short velvety-tomentose ..... P. adustus

Pore surface whitish; cap with stiff hairs ..... P. hirsutus

55. Cap more than 1 cm thick 56

Cap less than 1 cm thick 77

56. Cap with a red varnish; spores brown ..... Ganoderma lucidum p.14

Cap bright yellow or orange, fading when dry; pore surface sulfur-yellow ..... P. sulphureus

NOT AS ABOVE 57

57. Pore surface gray, smoke or black 58

Pore surface white, flesh or yellowish-gray 61

58. Tubes separated from context by a narrow black line .... P. fumosus

Tubes not so separated from the context 59

59. Pores less than 4 per mm; cap soft and watery ..... P. croceus

Pores more than 4 per mm; cap tough and hard 60

60. Cap 0.3-1.5 cm thick ..... P. supinus

Cap thicker; pores 5-8 per mm ..... Fomes geotropus p.12

Cap thicker; pores 4-5 per mm ..... Fomes meliae p.13

61. Pores large, less than 2 per mm 62

Pores smaller, 2-8 per mm 65

62. Basidiocarp leathery when fresh 63

Basidiocarp soft and watery when fresh 64

63. Cap resupinate, less than 2 cm long ..... Trametes malicola p.41

Cap not resupinate and larger ..... Daedalea confragosa p. 7

64. Cap less than 1.5 cm thick ..... P. biformis

Cap more than 3 cm thick ..... P. obtusus

65. Context off-white, pale buff, flesh or brown 66

Context white 69

66. Context soft and watery 67

Context corky 68

67. Context flesh colored; growing on living trees ..... P. fissilis

Context pale buff; growing on Quercus ..... P. croceus

68. Context pink or pale flesh; growing on Fraxinus .. Fomes fraxineus p.12

Context pale umber; not growing on Fraxinus ..... P. supinus

69. Cap tomentose to hispid, drying with a rough surface 70

Cap finely tomentose to glabrous, drying smooth 75

70. Context drying hard and subhorny 71

Context drying spongy or corky 74

71. Pores 4-8 per mm 72

Pores 2-5 per mm 73

72. Pore surface pinkish, drying grayish ..... Fomes geotropus p.12

Pore surface white or yellowish, not discoloring upon drying ..... P. galactinus

73. Edge of cap blackish; odor pleasant ..... P. spraguei

Edge of cap not blackish; odor unpleasant ..... P. durescens

74. Context yellow where touched with KOH ..... P. amygdalinus

Context not yellow with KOH ..... P. submurinus

75. Tube layer separate from context by a narrow dark line .. P. fumosus

Tube layer not so separate 76

76. Growing in clusters on living trees ..... P. robiniophilus

Growing on dead wood; cap blackish near base ..... Daedalea ambigua p. 7

77. Pores 2 or less per mm 78

Pores 2 or more per mm 86

78. Cap fleshy-tough; pores shallow and reddish ... Merulius tremellosus p.17

Cap soft and watery drying rigid, reviving when remoistened; pore surface toothed ..... P. biformis

Cap woody-tough 79

79. Cap glabrous or inconspicuously pubescent 80

Cap fibrillose, hirsute or tomentose 82

80. Cap less than 3 cm long, often resupinate 81

Cap more than 3 cm long, not resupinate ..... Daedalea confragosa p. 7

81. Context 0.2-0.7 cm thick; basidiocarp white ..... Trametes sepium p.42

Context 0.2-0.5 cm thick; basidiocarp pale wood color ..... Trametes malicola p.41

82. Cap with erect hairs or erect pubescence 83

Cap with tomentum flattened down 84

83. Cap less than 0.2 cm thick ..... P. pinsitus

Cap more than 0.2 cm thick ..... P. versatilis

84. Cap velvety-tomentose, resupinate, white ..... P. tulipiferae

Cap velvety-tomentose, sessile, brown ..... P. pargamenus

Cap appearing glabrous at maturity 85

85. Cap 1 cm or less long; pores not toothed; causes a brown rot ..... Trametes sepium p.42

Cap more than 1 cm long; pore surface toothed; causes a white rot ..... P. biformis

86. Pores averaging 2-4 per mm 87

Pores averaging more than 4 per mm 101

87. Cap with a red-varnish crust ..... Ganoderma lucidum p.14

Cap salmon-orange color, fading on drying, often found in large clusters ..... P. sulphureus

Cap not orange or red-varnished 88

88. Tubes separated from context by a dark line ..... P. fumosus

Tubes not so separated from the context 89

89. Cap glabrous when mature 90

Cap velvety, hirsute, fibrillose or tomentose 92

90. Cap 0.1-0.2 cm thick; having a cup-like body at the base ..... P. conchifer

Cap 0.1-0.2 cm thick; found centrally attached in small rosette-like clusters pores often toothed ..... P. fimbriatus

Cap more than 0.3 cm thick 91

91. Cap sessile, whitish, margin reddish drying blackish .. P. spraguei

Cap resupinate, brown, less than 1 cm long ..... Trametes serialis p.42

Cap sessile, gray, 5 cm or more long ..... Daedalea ambigua p.14

92. Context 1 mm or less thick 93

Context more than 1 mm thick 98

93. Cap with many zones of contrasting colors 94

Cap zonate but with unicolorous zones or azonate 95

94. Cap velvety-pubescent; pore surface not toothed ..... P. versicolor

Cap velvety; pore surface toothed ..... P. pargamenus

Cap densely villose or hirsute; pore surface toothed ..... Daedalea unicolor p. 7

95. Pore surface breaking up into teeth 96

Pore surface not breaking up into teeth 98

96. Pore surface cinnamon or dark brown ..... P. sector

Pore surface smoky-gray ..... P. hirsutus

Pore surface white or whitish 97

97. Cap 1-7 cm long ..... P. pargamenus

Cap 1.5 cm or less long ..... P. tulipiferae

98. Cap tomentose with glabrous zones 99

Cap hirsute-tomentose, unicolorous 100

99. Pore surface uneven, often toothed ..... P. maximus

Pore surface even; cap small ..... P. versicolor

100. Pore surface toothed; cap small ..... P. tulipiferae

Pore surface even; cap large ..... P. hirsutus

101. Pore surface pinkish, flesh, reddish or purplish 102

Pore surface whitish, yellowish, brownish, grayish or blackish 105

102. Cap pure white; tubes dark red to flesh color and peels off easily as an elastic layer ..... P. dichrous

Not as above 103

103. Pores 4-6 per mm; cap azonate, corky ..... Fomes fraxineus p.12

Pores 6-9 per mm; cap zonate, hard and rigid 104

104. Cap resupinate and pubescent ..... P. rigidus

Cap sessile and scarcely pubescent ..... P. zonalis

105. Cap consipicuously pubescent or tomentose 106

Cap glabrous or inconspicuously pubescent 112

106. Pore surface black or blackish 107

Pore surface not at all blackish 108

107. Tube layer waxy and separable from the context ..... P. dichrous

Tube layer not waxy and inseparable ..... P. adustus

108. Cap glabrous in zones, usually multicolored ..... P. versicolor

Cap not strongly glabrous in zones, unicolorous 109

109. Cap less than 0.3 cm thick, tomentose 110

Cap usually more than 0.3 cm thick, nearly glabrous 111

110. Cap yellowish-white, velvety ..... P. pavonius

Cap tan, compactly tomentose ..... P. crocatus

Cap flesh colored, rough-tomentose ..... P. rigidus

111. Cap white, yellowish or tan; context 1-2 mm thick .. P. subectypus

Cap cinnamon, reddish or bay; context 2-5 mm thick .... P. ectypus

112. Cap more than 0.5 cm thick 113

Cap less than 0.5 cm thick 120

113. Pore surface white 114

Pore surface grayish, pinkish, brownish or blackish 115

114. Cap with reddish coloration at base or with age
..... Trametes cubensis p.41

Cap evenly grayish color ..... P. submurinus

115. Pores averaging 5-7 per mm 116

Pores averaging 3-5 per mm 118

116. Cap zonate with reddish zones; tomentose 117

Cap azonate or with one or two shallow furrows; glabrous
..... P. supinus

117. Pore surface gray, darker where bruised; tubes separated
from context by a dark line ..... P. adustus

Pore surface yellow-brown; tubes not so separable ..... P. ectypus

118. Cap less than 2 cm thick ..... P. fumosus

Cap more than 2 cm thick 119

119. Cap glabrous, smoky-gray ..... Fomes meliae p.13

Cap tomentose to nearly glabrous with reddish stains ..... Fomes fraxineus p.12

120. Pore surface grayish, brownish or blackish 121

Pore surface white or whitish 123

121. Pore surface dark gray, bruising darker 122

Pore surface light gray to flesh color, not discoloring ..... P. supinus

122. Pores averaging 3-5 per mm ..... P. fumosus

Pores averaging 5-7 per mm ..... P. adustus

123. Basidiocarp less than 0.2 cm thick 125

Basidiocarp 0.2-0.5 cm thick 124

124. Cap multizonal with unicolorous zones ..... P. subectypus

Cap azonate ..... P. semipileatus

125. Basidiocarp brown; cap strongly zonate ..... P. drummondii

Basidiocarp whitish when dry ..... P. tenuis

SECTION II

Context pinkish, yellowish-red, orange or yellow; spores hyaline

126. Pores 8-9 per mm, flesh-colored ..... P. zonalis

Pores 5 or less per mm 127

127. Cap and pore surface red or orange-red 128

Cap and pore surface orange, yellow, brown, white, flesh or pink 130

128. Found on Pinus; cap and pore surface pinkish to reddish, darkening upon drying ..... P. mollis

Found on hardwoods; cap and pore surface deep red and not discoloring 129

129. Cap less than 0.5 cm thick, not zonate ..... P. sanguineus

Cap more than 0.5 cm thick, zonate ..... P. cinnabarinus

130. Pore surface bright sulfur-yellow; cap orangish and glabrous ..... P. sulphureus

Pore surface bright rusty-yellow; cap rusty brown or rusty red and hirsute ..... P. hispidus

Not as above 131

131. Centrally stemmed; pore surface white ..... P. sulphureus var. cincinnatus

Sessile; pore surface not white 132

132. Basidiocarp turning cherry-red in KOH ..... P. nidulans

Basidiocarp becoming darker in KOH 133

133. Cap buff to orange; pores 2-4 per mm; on Quercus ..... P. croceus

Cap white to flesh; pores 1-3 per mm; grows from wounds of living trees ..... P. fissilis

Cap slightly reddish; pores 4-6 per mm; grows on Fraxinus ..... Fomes fraxineus p.12

SECTION III

Context yellowish-brown to dark brown; spores either hyaline or brown

134. Basidiocarp stemmed or substemmed 135

Basidiocarp sessile or effused-reflexed 139

135. Cap and stem red-varnished 136

Cap and stem not at all varnished 137

136. Cap and stem at first red-varnished, the cap becoming whitish or reddish-yellow to orangish with age ..... Ganoderma curtissi p.14

Cap and stem srongly red-varnished, not disappearing with age ..... Ganoderma lucidum p.14

137. Context less than 1 mm thick; centrally stemmed ... P. cinnamomeus

Context more than 1 mm thick 138

138. Surface of cap with a thin distinct crust ..... Fomes lobatus p.13

Cap not incrusted; context brown, not duplex; on hardwoods ..... P. ludovicianus

Cap not incrusted; context yellow-brown slightly duplex; on conifers ..... P. schweinitzii

139. Cap with a distinct crust 140

Cap not incrusted 142

140. Basidiocarp consisting of many closely overlapping caps, each of which is 1 cm or less thick, forming a cylindric mass ..... P. graveolens

Basidiocarp not overlapping; cap and stem covered with a thin red-varnish ..... Ganoderma lucidum p.14

Basidiocarp not overlapping or red-varnished 141

141. Context 1-4 cm thick; growing at bases of living Quercus ..... P. dryadeus

Context less than 1 cm thick; growing from Juniperus roots ..... P. juniperinus

Context less than 1 cm thick; growing from bases of old dead stumps ..... Fomes lobatus p.13

142. Basidiocarp growing on conifers 143

Basidiocarp growing on hardwoods 146

143. Cap less than 1 mm thick 144

Cap more than 1 mm thick 145

144. Cap brown, furrowed; pores 4-7 per mm; on Taxodium...P. drummondii

Cap grayish-white, not furrowed; pores 2-4 per mm ... P. abietinus

Cap dark wine-brown, multizonate; pores 7-8 per mm; on Pinus ..... P. vinosus

145. Cap wooly-tomentose; pores 1-3 per mm; on Pinus....P. schweinitzii

Cap glabrous to finely tomentose; pores 4-5 per mm; on Juniperus ..... P. juniperinus

Cap densely hispid; pores 2-4 per mm; fournd rarely on Pinus ..... P. hispidus

146. Context cinnamon-yellow or very pale brown 147

Context yellowish-brown or darker 154

Context concolorous to cap and turns cherry-red in KOH ..... P. hispidus p.41

147. Cap 0.5 cm or more thick when mature 148

Cap less than 0.5 cm thick 150

148. Cap covered with stiff hairs ..... Trametes hispida

Cap glabrous or only finely tomentose 149

149. Cap whitish; pores brownish ..... P. dryophilus

Cap yellowish-orange; pores reddish-yellow ..... P. croceus

150. Pores 1-4 per mm 153

Pores 5 or more per mm 151

151. Cap multizonate; context concolorous to cap 152

Cap azonate or with one or two shallow furrows; context duplex in color ..... P. supinus

152. Pores 8-9 per mm ..... P. zonalis

Pores 6 per mm ..... P. crocatus

153. Cap less than 3 cm long ..... Trametes rigida p.42

Cap more than 3 cm long ..... P. sector

154. Context usually less than 0.7 cm thick; basidiocarp often small 155

Context thicker and basidiocarp often larger 167

155. Cap distinctly tomentose or hispid; pores of various sizes ... 156

Pores more than 5 per mm; cap glabrous to inconspicuously pubescent 164

156. Pores 3 or less per mm 157

Pores 3 or more per mm 159

157. Cap less than 0.2 cm thick, soft and flexible; pore surface greenish, often toothed ..... Daedalea farinacea p. 7

Cap 0.5 cm or more thick, drying firm and rigid 158

158. Found on living trunks of Prosopis, Morus or Salix .... P. texanus

Found growing only on Populus ..... P. dryophilus var. vulpinus

159. Cap with a thick matt of stiff erect black hairs .... P. hydnoides

Not as above 160

160. Context dark wine-reddish brown ..... P. vinosus

Context yellowish-brown, rusty-brown or darker 161

161. Cap hard-corky or woody, not flexible 162

Cap soft to tough, but flexible 163

162. Pore surface purplish-brown, thick walled and with a velvety feel ..... Fomes torulosus p.14

Pore surface yellowish-brown, thin walled ..... Fomes conchatus p.12

Pore surface grayish-brown to reddish-brown ..... P. gilvus

163. Cap 0.05-0.3 cm thick, bright rusty-brown; on Quercus . P. iodinus

Cap 0.1-0.3 cm thick, light tan; on Populus ..... P. crocatus

Cap 0.3-1 cm thick, yellow-brown; on various hardwoods ..... P. cuticularis

164. Context dark wine-reddish brown ..... P. vinosus

Context yellow-brown 165

Context rusty-brown, very thin, less than 0.5 mm ..... P. iodinus

165. Context dull yellow-brown 166

Context bright shining yellow-brown ..... P. porrectus

166. Cap rough and wart-like, only somewhat zonate ..... P. gilvus

Cap smoother, thin and marked with many narrow zones ..... P. licnoides

167. Pores 5 or more per mm 168

Pores 4 or less per mm 169

168. Cap rough and wart-like, soon glabrous; pore surface grayish or reddish-brown ..... P. gilvus

Cap smoother with irregular rusty-tomentum; pore surface with a velvety feel ..... Fomes torulosus p.14

169. Cap hirsute, velvety or tomentose 171

Cap glabrous 170

170. Cap with a central solid core permeated by white fibrils; pores 2-3 per mm ..... P. dryophilus

Cap without a central core; pores 3-5 per mm ..... P. dryadeus

171. Cap with a central core permeated by white fibrils...P. dryophilus

Cap without a central core 172

172. Cap thick, 2-10 cm thick, covered with dense stiff black hairs ..... P. hispidus

Cap rarely more than 2 cm thick 173

173. Cap hirsute becoming a matted tomentum; on Populus ..... P. dryophilus var. vulpinus

Cap with a reddish rusty-brown tomentum ..... P. ludovicianus

Cap with yellowish rusty-brown wooly tomentum or fibrils ..... P. cuticularis

Polyporus abietinus Dicks. ex Fries - Cap up to 4 x 4 x 0.2 cm, sessile, effused-reflexed or rarely resupinate, leathery, white to gray, base often darker, somewhat zoned. Villose to tomentose; context white, gray or brownish, thin. Pores 2-4 per mm, violet when fresh becoming gray or brownish, often uneven or slightly toothed. Found on dead coniferous wood, common.

var. abietis (Lloyd) Overh. - Characteristics of the species except cap up to 5 x 7 x 0.5 cm, darker colored and the pores partially gilled or broken up into teeth.

Polyporus adustus Willd. ex Fries - Cap up to 6 x 10 x 0.8 cm, sessile or effused-reflexed, corky, white, gray or tan, finely tomentose to nearly glabrous, zonate, rarely with reddish zones; margin often black when dry. Context white to pale brown when dried, tube layer separated by a narrow black line. Pores 5-7 per mm, gray to grayish-black darker where bruised or when dry. Found on dead hardwoods, occasionally on conifers, common; similar to P. fumosus.

Polyporus amygdalinus Berk. & Rav. - Cap up to 15 x 20 x 3 cm sessile appearing substemmed, applanate, fleshy-watery drying very light, witich to grayish, densely velvety-tomentose; context white turning yellow in KOH. Pores 3-4 per mm, white, gray to yellowish. Found on dead hardwoods, uncommon; similar to P. sulphureus.

Polyporus anceps Peck - Cap up to 2 x 7 x 2 cm, effused-reflexed, resupinate or sessile, corky, white, sometimes discoloring brownish upon drying, glabrous or very finely velvety-tomentose; context white. Pores 4-5 per mm, white drying gray or yellowish. Found on dead Pinus causing a red ray rot, (fig. 54).

Polyporus arcularius Batsch ex Fries - Cap up to 8 cm broad and 0.4 cm thick, centrally stemmed, fleshy-tough, yellowish brown to dark brown, covered with minute scales; context white. Pores 1 per mm, angular, yellowish or white. Found on dead hardwoods during the spring, (figs. 55 and 56).

Polyporus berkeleyi Fries - Cap up to 25 cm broad and 2 cm thick, stemmed, either singular or with several caps attached, fleshy-tough, white, grayish to yellowish, compactly tomentose to nearly glabrous, rough and obscurely zoned; context white. Pores 1-0.5 per mm, whitish, discoloring upon drying, angular, sometimes toothed. Found growing on or around stumps of hardwoods, especially Quercus.

Polyporus biennis (Bull. ex Fries) Fries - Cap up to 20 cm broad and 1.5 cm thick, stemmed or substemmed, leathery, white to tan, conspicuously villose-tomentose, often very distorted in shape; context white. Pores 1-3 per mm, whitish becoming reddish where bruised. Stem central, lateral or lacking, often poorly developed. Found on stumps and trunks of hardwoods.

Polyporus biformis Fries - Cap up to 5 x 6 x 1.5 cm, effused-reflexed, resupinate or sessile, soft and watery drying rigid, white to tan, drying yellowish or orangish, fibrillose-tomentose with appressed fibrils and rough upon drying, appearing glabrous; context white. Pores 1-2 per mm, white to yellowish, daedaloid, often toothed. Found on dead hardwoods, rarely on Pinus, (fig. 59).

Polyporus cinnabarinus Jacq. ex Fries - Cap up to 7 x 12 x 2 cm, leathery, orange to red, often fading and paler with age, compactly tomentose, uneven, becoming glabrous, strongly zonate; context red to yellowish red. Pores 2-4 per mm, scarlet-red. Found on dead hardwoods, rarely on Pinus, (fig. 57).

Polyporus cinnamomeus Jacq. ex Fries - Cap up to 5 cm broad and 0.3 cm thick, centrally stemmed, reddish brown, silky-fibrillose, zonate; context rusty brown, thin. Pores 2-3 per mm, yellowish brown. Found rarely on very rotten wood, usually terrestrial.

Polyporus conchifer (Schw.) Fries - Cap up to 3 x 5 x 0.3 cm, sessile or appearing substemmed, leathery, white to yellowish, glabrous sometimes wrinkled, a small cup-like body is usually found at the base of the caps; context white, thin. Pores 2-3 per mm, white to yellowish. Often foudn in clusters on dead hardwoods, commonly on Ulmus branches, (fig. 58).

Polyporus crocatus Fries - Cap up to 6 x 15 x 0.3 cm, sessile, effused-reflexed or resupinate, flexible, tan or tannish, multizonate with many narrow concolorous zones, compactly tomentose; context concolorous with cap. Pores 6 per mm, pale tan, smooth and velvety. Found on dead hardwoods, noted only on Populus, uncommon.

Polyporous croceus Pers. ex Fries - Cap up to 20 x 30 x 10 cm, sessile, soft and watery drying rigid, yellowish-orange to buff, fading upon drying or becoming reddish-black in old specimens, appressed-tomentose to nearly glabrous; context tan and strongly zonate. Pores 2-4 per mm, reddish-yellow becoming blackish upon drying. Found on dead or living trees of Quercus and Castanea.

Polyporus cuticularis Bull. ex Fries - Cap up to 7 x 10 x 1 cm, sessile often applanate, spongy drying rigid, yellowish-rusty brown, compactly wooly tomentose to bibrillose; context yellowish-rusty brown or darker. Pores 3-5 per mm, rusty brown or darker. Found usually in clusters on stumps and logs and living hardwoods.

Polyporus dichrous Fries - Cap up to 4 x 8 x 0.5 cm, sessile or effused-reflexed, leathery, white or whitish, villose-tomentose to compactly tomentose, becoming nearly glabrous; context white with the pore layer waxy and separable as an elastic layer. Pores 5-8 per mm, flesh to reddish-purple. Found on dead hardwoods, rarely on conifers, (fig. 60).

Polyporus drummondii Klotzsch - Cap up to 6 x 6 x 0.1 cm, sessile appearing substemmed, flexible becoming ridid, white becoming grayish to light brown when dry, glabrous appearing fibrillose and very furrowed upon drying, zonate with dark zones; context white, thin. Pores 4-7 per mm, white drying darker. Found on dead wood of Taxodium, uncommon; similar to P. tenuis.

Polyporus dryadeus Pers. ex Fries - Cap up to 40 x 35 x 10 cm, sessile, grayish-white turning brownish with age, minutely tomentose becoming glabrous, crust thin and easily indented; context dark rusty brown. Pores 3-5 per mm, grayish-brown or darker, shining when fresh. Found usually at the base of living Quercus or fresh stumps; similar to P. dryophilus.

Polyporus dryophilus Berk. - Cap up to 13 x 22 x 12 cm, sessile, spongy becoming firm, whitish becoming brownish or darker with age, tomentose becoming almost glabrous, not incrusted; context at first tan with brown next to the tubes, soon becoming brown, having a basal fiberous core 3-s1 cm thick. Pores 2-3 per mm, cinnamon brown or darker. Found usually on trunks of living hardwoods, common on Quercus.

var. vulpinus (Fries) Overh. - Characteristic of the species, except cap is up to 5 x 10 x 2 cm, more applanate, more tomentose and with a smaller central core. Found on Populus; similar to P. cuticularis, but having a definite central core.

Polyporus durescens Overh. - Cap up to 12 x 15 x 4 cm, sessile, often in overlapping clusters, corky drying hard, white or grayish, compactly spongy-tomentose, drying rough; context white. Pores 3-5 per mm, white or gray. Found on logs and stumps of hardwoods, more common in the Ohio river valley, similar to P. spraguei.

Polyporus ectypus Berk. & Curt. - Cap up to 8 x 10 x 0.6 cm, sessile or appearing substemmed, leathery,, pinkish-cinnamon to somewhat ressish, zonate with concolorous or reddish zones, short hirsute-tomentose often glabrous in zones; context white. Pores 5-6 per mm, yellowish, brownish on drying. Found on dead hardwoods.

Polyporus elegans Bull. ex Fries - Cap up to 7 cm broad and 0.7 cm thick, stemmed, leathery, tan weathering whitish, glabrous often minutely-furrowed; context whitish. Pores 4-5 per mm, gray to light bay. Stem central or lateral, black at the base. Found usually on small branches or twigs of hardwoods.

Polyporus fimbriatus Fries - Cap up to 3 cm broad and 0.2 cm thick, sessile or substemmed often with a central point of attachment and in dense clusters, whitish drying yellowish, sometimes with a few dark zones, very finely pubescent or becoming nearly glabrous; context white, thin. Pores 2-3 per mm, white to yellowish, usually toothed. Found on dead hardwoods.

Polyporus fissilis Berk. & Curt. - Cap up to 10 x 17 x 7 cm, sessile, soft drying hard, white to reddish-discolored, glabrous to tomentose; context whitish to flesh. Pores 1-3 per mm, whitish discoloring to deep reddish brown where handled and becoming darker on drying. Found on living hardwoods, rare.

Polyporus frondosus Dicks ex Fries - Cap up to 7 cm broad and 0.7 cm thick, stemmed or substemmed often in large overlapping clusters as much as 60 cm broad, fleshy-tough, grayish, nearly glabrous or tomentose to short fibrillose-tomentose; context white. Pores 1-3 per mm, white to yellowish. Stem short and thick, often aggregated. Found around stumps and trunks of hardwoods, (fig. 61).

Polyporus fumosus Pers. ex Fries - Cap up to 10 x 15 x 2 cm, sessile or effused-reflexed, leathery, whitish, grayish or tan, sometimes with a reddish stain, finely tomentose to glabrous; context whitish and separated from tube layer by a narrow dark line. Pores 3-4 per mm, white to dark gray, sometimes becoming black where bruised. Found on dead hardwoods, commonly on Ulmus; similar to P. adustus but generally larger.

Polyporus galactinus Berk. - Cap up to 8 x 12 x 3 cm, sessile, soft, becoming rigid when dry, whitish drying yellowish, conspicuously hairy at the base, tomentose on the margin; context white, zonate and with a fragrant odor when fresh. Pores 4-6 per mm, white to yellowish. Found on dead hardwoods, common in the Mississippi river valley.

Polyporus giganteus Pres. ex Fries - Cap up to 15 cm broad and less than 1 cm thick, stemmed, often in large clusters up to 40 cm broad, fleshy-tough, grayish becoming blackish on the margin, tomentose, coarsely wrinkled; context white. Pores 4-7 per mm, whitish, becoming blackish where bruised or on drying. Stem short and thick, often aggregated. Found around stumps or trees of Quercus and Fagus; similar to P. frondosus.

Polyporus gilvus (Schw.) Fries - Cap up to 7 x 12 x 1.5 cm, sessile or effused-reflexed, corky, bright rusty yellow becoming dark rusty brown or darker with age, velvety when young and on mature margins, becoming glabrous, rough and zonate with age; context yellowish brown. Pores 5-8 per mm, grayish-brown becoming reddish-brown or darker. Found on dead hardwoods, rarely on conifers, (fig. 62); similar to P. licnoides.

Polyporus graveolens (Schw.) Fries - Cap up to cm long and 0.8 cm thick, found in a cylindrical mass 5-20 cm broad consisting of numerous, small, closely overlapping caps arising from a central core. Cap brownish, slightly incrusted, glabrous, with the margin inrolled; context brown. Pores 3-4 per mm, grayish brown. Found on logs and trunks of hardwoods, common on Quercus, rare, (fig. 63).

Polyporus hirsutus Wulf. ex Fries - Cap up to 6 x 10 x 1 cm, sessile or effused-reflexed, leathery, grayish, yellowish or brownish, but nearly unicolorous, hirsute or tomentose, zonate, furrowed, margin typically darker; context white. Pores 3-4 per mm, white to yellowish or gray. Found on dead hardwoods, occasionally on conifers, common, (fig. 64).

Polyporus hispidus Bull. ex Fries - Cap up to 30 x 25 x 10 cm, sessile, soft drying rigid, yellowish-brown to rusty-red becoming almost black, covered with a dense hirsute or hispid tomentum; context bright rusty yellow to brown becoming darker upon drying or where bruised. Found on living trunks of hardwoods, rarely on conifers, common, (fig. 66).

Polyporus hydnoides Swartz ex Fries - Cap up to 10 x 15 x 1 cm, sessile, typically applanate, cinnamon to smoky, covered with a dense coat of black, coarse, stiff hairs that weathers away; context yellowish brown or darker. Pores 3-5 per mm, typically thick walled, cinnamon, yellowish brown or darker. Found on dead hardwoods, usually on Carya and Juglans, (fig. 67).

Polyporus iodinus Mont. - Cap up to 5 x 6 x 0.3 cm, sessile, thin and flexible, typically bright rusty brown sometimes darker, covered by a compact rusty tomentum, multizonate; context rusty brown. Pores 4-7 per mm, concolorous or darker than the cap. Found on dead hardwoods, uncommon.

Polyporus juniperinus (Murr.) Sacc. & Trott. - Cap up to 7 x 4 x 2 cm, sessile appearing substemmed, yellowish brown to darker, finely tomentose to glabrous, somewhat zonate, slightly incrusted with age; context dark brown to yellow brown. Pores 4-5 per mm, brown, darkening upon drying. Found on buried roots of Juniperus, uncommon.

Polyporus licnoides Mont. - Cap up to 6 x 10 x 0.7 cm, sessile or effused-reflexed, leathery, bright yellowish brown or cinnamon, with a short compact spongy tomentum becoming nearly glabrous with age, multizonate and rough; context dull yellowish brown. Pores 6-8 per mm, dark gray-brown to dark rusty-brown. Found on dead hardwoods; similar to P. gilvus.

Polyporus ludovicianus (Pat.) Sacc. & Troot. - Cap up to 30 x 30 x 2.5 cm, substemmed forming large rosette-like clusters up to 50 cm broad, covered with rusty-red or rusty-brown tomentum, zonate drying rough; context brown. Pores 2-3 per mm, grayish-brown to dark brown. Found usually at the base or on roots of living hardwoods, occasionally on logs or stumps; similar to P. cuticularis except generally smaller.

Polyporus maximus (Mont.) Overh. - Cap up to 15 x 25 x 0.8 cm, sessile, leathery, whitish or pale tan to wood brown, covered with a dense tomentum or hirsute-tomentum that weathers away in zones, conspicuously zonate with glabrous zones; context whitish. Pores 3 per mm, whitish becoming yellowish or darker upon drying, often daedaloid or toothed. Found on dead hardwoods, unocmmon; similar to P. hirsutus.

Polyporus mollis Pers. ex Fries - Cap up to 10 x 8 x 4 cm, sessile or nearly resupinate, fleshy-tough drying rigid, white becoming pinkish or reddish with age or where handled, often blackish upon drying, slightly tomentose becoming glabrous; context concolorous with the cap. Pores 3-4 per mm, reddish becoming dark pinkish-brown when dry. Found on dead wood of Pinus, (fig. 65).

Polyporus mutabilis Berk. & Curt. - Cap up to 12 x 6 x 0.3 cm, stemmed, whitish drying grayish, yellowish or light brownish, minutely silky-pubescent to glabrous, conspicuously zonate with darker zones; context white, thin. Pores 6-8 per mm, white drying yellowish. Stem usually lateral and distinct, concolorous with the cap and tomentose. Found on dead wood, (fig. 69); similar to P. drummondii.

Polyporus nidulans Fires - Cap up to 6 x 8 x 4 cm, sessile or effused-reflexed, soft drying regid, dark brown to light brown sometimes bruising purplish, finely subtomentose to glabrous; context concolorous to cap. Pores 2-4 per mm, yellowish to reddish brown. All part of the basidiocarp turn cherry-red or purplish where touched with KOH solution. Found on dead hardwoods.

Polyporus obtusus Berk. Cap up to 20 x 30 x 8 cm, sessile, ungulate to convex, spongy drying corky, white drying grayish to yellowish, hairy-tomentose weathering to a matted tomentum, margin thick and obtuse; context white. Pores 1 or less per mm, white or yellowish, sometimes toothed Found on living trunks and branches of Quercus, noted on other hardwoods, (fig. 68).

Polyporus palustris Berk. & Curt. - Cap up to 10 x 20 0 3 cm, sessile, corky drying hard, white to yellowish or orangish upon drying, very compactly tomentose to glabrous; rough; context white. Pores 4-5 per mm, white to yellowish, sometimes slightly toothed. Found on dead wood of Pinus, (fig. 70).

Polyporus pargamenus Fries - Cap up to 7 x 7 x 0.5 cm, sessile, flexible, witish, grayish, brownish or blackish with age, villose or velvety-pubescent, margin zonate; context white, thin. Pores 2-4 per mm, white to slightly reddish-purple, often toothed. Found on dead hardwoods, rarely on conifers, very common, (fig. 71).

Polyporus pavonius (Hook.) Fries - Cap up to 9 x 12 x 0.2 cm, sessile or effused-reflexed, flexible, white, yellowish, tannish to drab gray, densely villose-tomentose and velvety, multizonate with concolorous zones; context white, thin. Pores 5-6 per mm, witish to cream. Found on dead wood, noted only on Salix, uncommon, similar to P. hirsutus.

Polyporus pinsitus Fries - Cap up to 7 x 8 x 0.1 cm, sessile or effused-reflexed, flexible, white to gray or smoky-brown, conspicuously hirsute-tomentose, multizonate with concolorous zones; context white. Pores 0.5-2 per mm, white, yellowish, smoky-brown to blackish, often toothed. Found on dead wood, usually on Juniperus, noted on both conifers and hardwoods; similar to P. versicolor.

Polyporus porrectus (Murr.) Sacc. & Trott. - Cap up to 9 x 9 x 1.5 cm, sessile, bright rusty brown to pale bay, very compactly tomentose or nearly glabrous, multizonate and wrinkled; context very bright shiny yellow-brown. Pores 5-7 per mm, yellowish-brown to gray-brown with a pale tan zone along the margin. Found on dead wood, uncommon.

Polyporus rigidus Lev. - Cap up to 1.5 x 2 x 0.5 cm, sessile and convex or more often resupinate, leathery, whitish, flesh or pale hazel when dried, rough-tomentose to villose-tomentose, strongly zonate with dark zones; context whitish. Pores 6-9 per mm, flesh colored sometimes drying grayish. Found on dead hardwoods, common in the Mississippi river valley; similar to P. zonalis.

Polyporus robiniophilus (Murr.) Lloyd - Cap up to 15 x 20 x 5 cm, sessile, corky, often in clusters, white becoming grayish to yellowish upon drying, glabrous, somewhat rough, margin often furrowed; context white, often with a pleasant odor. Pores 4-6 per mm, white discoloring upon drying. Found on trunks of living hardwoods, common on Robinia, (fig. 72).

Polyporus sanguineus L. ex Fries - Cap up to 7 x 8 x 0.5 cm, sessile or appearing substemmed, flexible, bright red, finely tomentose to glabrous, smooth and even; context red to yellowish-red. Pores 2-4 per mm, red. Found on dead hardwoods, (fig. 74); similar to P. cinnabarinus but thinner and smoother.

Polyporus schweinitzii Fries - Cap up to 25 cm broad and 4 cm thick, sessile or stemmed, spongy drying rigid, rusty brown to orangish, wooly-tomentose weathering to compactly tomentose or nearly glabrous; context yellowish to reddish brown. Pores 1-3 per mm, yellowish becoming darker where bruised or on drying. Found growing about trunks or roots of Pinus, common, (fig. 73).

Polyporus sector Ehrenb. ex Fries - Cap up to 9 x 10 x 0.3 cm, sessile or effused-reflexed, flexible, drab-gray, hazel or cinnamon, darkening with age, villose-tomentose and velvety. Zonate with concolorous zones furrowed with glabrous zones with age; context light brown, thin. Pores 3-4 per mm, wood-brown to smoky-brown, usually toothed. Found on dead hardwoods.

Polyporus semipileatus Peck - Cap up to 1.5 x 3.5 x 0.5 cm, effused-reflexed, resupinate or occasionally sessile, spongy drying rigid, whitish drying grayish to yellowish, finely villose-tomentose to glabrous, azonate; context white. Pores 5-8 per mm, white to cream. Found on old branches and rotten wood of hardwoods.

Polyporus spraguei Berk. & Curt. - Cap up to 12 x 15 x 3 cm, sessile, flexible drying rigid, white, whitish or light gray, appressed-tomentum or glabrous, rough, margin often reddish, blackening when dried; context white. Pores 3-5 per mm, whitish, often discoloring on drying. Found on dead wood and at bases of living hardwoods, common on Quercus; similar to P. durescens.

Polyporus subectypus (Murr.) Bres. - Cap up to 7 x 11 x 0.5 cm, sessile, flexible drying hard, white to yellowish or orangish-tan, finely tomentose to nearly glabrous with age, multizonate with unicolorous zones; context white. Pores 5-7 per mm, white drying yellowish sometimes slightly toothed. Found on dead hardwoods, uncommon; similar to P. extypus.

Polyporus submurinus (Murr.) Lloyd - Cap up to 4 x 8 x 1.5 cm, sessile, rigid, grayish, minutely and finely villose-tomentose, azonate, often rough; context whitish. Pores 4-5 per mm, white to whitish. Found on dead hardwoods, uncommon.

Polyporus sulphureus Bull. ex Fries - Cap up to 25 x 30 x 2.5 cm, sessile or appearing substemmed, often in large rosette-like clusters, fleshy drying regid, sulfur-yellow or bright orange fading to whitish with age, nearly glabrous; context white, light yellow or salmon. Pores 2-4 per mm, bright

sulfur-yellow and fading with age. Found on stumps, trunks and logs of both hardwoods and conifers, uncommon, edible, (fig. 75).

var. cincinnatus (Morgan) Overh. - Like the species but cap salmon colored and pore surface white. Found at the base of roots of Quercus growing from a root-like pseudosclerotium attach to the central stem.

Polyporus supinus Swartz ex Fries - Cap up to 10 x 10 x 1.5 cm, sessile, applanate to convex, occasionally persisting for 2 to 3 years, corky drying hard, whitish, grayish, yellowish-gray becoming bay-red to blackish with age, minutely villose-tomentose becoming glabrous, azonate or with 1 or 2 shallow furrows, slightly incrusted with age; context duplex in color with a pale zone above a dark brown to olive zone below, in thin specimens uniformly colored. Pores 5-7 per mm, grayish. Found on dead or living hardwoods.

Polyporus tenius (Sacc.) Overh. - Cap up to 5 x 8 x 0.2 cm, sessile or effused-reflexed, flexible, white, yellowish to grayish on drying, glabrous sometimes finely pubsecent rarely hispid-tomentose, furrowed; context white, thin. Pores 5-6 per mm, white to yellowish, often toothed. Found on dead Taxodium, but probably occurring on a variety of hardwoods, common.

Polyporus texanus (Murr.) Sacc. & Trott. - Cap up to 7 x 9.5 x 5 cm, sessile, ungulate or convex, corky drying hard, yellowish-brown, reddish-brown to blackish, finely tomentose becoming glabrous and rimose with age; context bright yellow-brown or darker. Pores 2-3 per mm, yellow to dark brown. Found on trunks of living Morus, Prosopis and Salix, more common in West Texas, (fig. 77).

Polyporus tricholoma Mont. - Cap up to 4 cm broad and 0.3 cm thick, centrally stemmed, circular, rigid, white to yellowish becoming dark yellow to orangish when dry, glabrous, margin often covered with hairs; context white. Pores 3-6 per mm, white to yellowish. Found on dead hardwoods; similar to P. arcularius but smaller.

Polyporus tulipiferae (Schw.) Overh. - Cap up to 1.5 x 4 . 0.6 cm, effused-reflexed or resupinate, leathery, white drying yellowish, villose, villose-tomentose or occasionally short hirsute-tomentose; context white. Pores 2 per mm, white or yellowish, toothed. Found on dead hardwoods, common, (fig. 76).

Polyporus versatilis (Berk.) Rom. - Cap up to 5 x 6 x 1 cm, sessile or resupinate, whitish, gray or blackish, often brownish on drying, covered with long silky or stiff hairs that matt into hirsute-tomentum; context whitish to light brown, formed from the surface pubescense. Pores 1-2.5 per mm, dark purple or lavender, aging to brownish, often toothed. Found on dead wood of both hardwoods and conifers.

Polyporus versicolor L. ex Fries - Cap up to 6 x 8 x 0.4 cm, sessile or effused-reflexed, flexible, variable in color, usually marked by many narrow multicolored zones ranging from white, yellow, brown, reddish, bluish and blackish, velvety, zonate with alternate zones becoming glabrous; context white, thin. Pores 3-5 per mm, white drying yellowish. Found on dead and living hardwoods, occasionally on conifers, common, (fig. 78).

Polyporus vinosus Berk. - Cap up to 7 x 12 x 0.7 cm, sessile or effused-reflexed, brittle, dark brown, reddish-wine brown to purplish black on drying, velvety-tomentose when young becoming glabrous and multizonate with many narrow zones; context dark reddish-wine brown or lavender-brown, thin. Pores 7-8 per mm, purplish-brown to grayish-black. Found on dead wood of both hardwoods and ocnifers.

Polyporus zonalis Berk. - Cap up to 7 x 9 x 0.5 cm, sessile or effused-reflexed, leathery drying hard, white becoming orangish to reddish or darker with age, minutely pubescent to glabrous multizonate with many narrow concolorous or darker zones, margin inrolled on drying; context whitish to concolorous to cap, thin. Pores 8-9 per mm, flesh-colored. Found on dead hardwoods.

Poria (Persoon) S.F. Gray

Basidiocarp resupinate, either with fixed limits or broadly spread out over the substrata without a regular form. No true cap. Characterized as a flat layer of pores directly on the substrata. Texture is either leathery, soft or membranous in consistency. Pores are typically round or slightly elongated; tubes one to rarely several layers thick. Causes wood rots and some heart rots and root rots, common. Due to the very difficult taxonomic problems involved, no attempt will be made to determine species. For a representative of the genus see Fig. 53.

Trametes Fries

Fruiting bodies annual, or sometimes lasting several years, corky, sessile to resupinate; context white to brown extending unchanged into the walls of the tubes, hence the pores typically extend to uneven depths into the context. Pores are circular to angular, never strongly daedaloid or gilled. The genus is very similar to Polyporus, differing in that the upper termination of the tubes do not form a continuous straight line, this is often difficult to distinguish. If uncertain about a specimen run it through the Polyporus key first which has included the Trametes species. The Trametes key is quick and useful when the specimen is obviously of that genus.

Key to species of Trametes

1. Context white or whitish 2

   Context wood color brown or darker 10

2. Cap brown or strongly pubescent ..... T. rigida

   Cap glabrous or finely tomentose 3

3. Cap brown, often resupinate 4

   Cap whitish, yellowish, reddish, pale wood or blackish 5

4. Cap with a thin crust ..... Fomes annosus p.11

   Cap without crust ..... T. serialis

5. Cap large, 5-35 cm broad 6

   Cap small, 1-6 cm broad 9

6. Pores 4-6 per mm 7

   Pores 1-4 per mm 8

7. On livng trees, usually Robinia ..... Polyporus robiniophilus p.38

   On dead hardwoods ..... T. cubensis

8. Context and cap whitish ..... Daedalea ambigua p. 7

   Context and cap wood colored ..... Daedalea confragosa p. 7

9. Context thick, 2-5 mm, wood colored ..... T. malicola

   Context thin, less than 1.5 mm, whitish ..... T. sepium

10. Pores 3-5 per mm, cap with dense matt of erect, stiff, black hairs ..... Polyporus hydnoides p. 37

    Pores 1-2 per mm, cap maybe hirsute but not as above 11

11. Cap with yellow-brown to gray hirsute ..... T. hispida

    Cap glabrous or finely tomentos ..... T. malicola

Trametes cubensis (Mont.) Sacc. - Cap up to 8 x 15 x 2.5 cm, sessile, applanate to effused-reflexed, white with reddish color at the base, cap becoming reddish with age, zonate, tomentose becoming glabrous, except on the growing margin; context white to whitish. Pores 4-6 per mm, white drying yellowish-tan. Found on dead hardwoods, uncommon.

Trametes hispida Bagl. - Cap up to 6 x 12 x 2 cm, sessile, somewhat decurrent on the substrata, covered with dense yellowish-brown hirsute, weathering grayish; context light brown to brown. Pores 1-2 per mm, smoky-brown. Found on dead hardwoods, usually on Populus and Salix, (fig. 79).

Trametes malicola Berk. & Curt. - Cap up to 2 x 5 x 1.5 cm, sessile to resupinate, pale cinnamon to wood colored, darkening with age, glabrous to finely tomentose; context light brown to wood color. Pores 1.5-2 per mm, whitish to tan. Found on dead hardwoods, especially on Acer and Carya.

Trametes rigida Berk. & Mont. - Cap up to 3 x 6 x 0.3 cm, resupinate or someitmes sessile and applanate, grayish to tan or light brown, pubsecent to hispid, zonate, often glabrous in narrow zones, revealing a bay surface; context light brown to golden cinnamon. Pores 2-3 per mm, whitish to pale brown. Found on dead hardwoods, especially Fraxinus, common.

Trametes sepium Berk. - Cap up to 1 x 2.5 x 0.7 cm, sessile, effused-reflexed or resupinate, pale wood color to whitish, finely tomentose becoming glabrous; context white. Pores 1-2 per mm, whitish. Found on dead hardwoods, often on fence posts or structural timbers, or occasionally on dead conifers.

Trametes serialis Fries - Cap up to 1 x 4 x 0.8 cm, resupinate to slightly reflexed, white becoming brown with age, glabrous or with slight tomentum, zonatae; context white, thin. Pores 3 per mm, white. Found on dead coniferous trees or occasionally on dead hardwoods; often on structural timbers.

GLOSSARY

Adnate. Entire width of the gills attached to the stem.
Adnexed. Gills narrowly attached to the stem.
Annulus. An encircling band or ring about the stem resulting from the loosening of the interveil.
Applanate. Cap flattened out, horizontally expanded.
Appressed. Lying close and flat against the surface.
Azonate. Without zones.
Basal. Nearest the point of attachment.
Basidia. Microscopic structures bearing on its surface four spores, found in the hymenial region of basidiocarps.
Basidial. Possessing basidia.
Basidiocarp. The basidia-producing fruiting body or the basidiomycetes.
Cartilaginous. Cartilage-like, gristly, consisteny that is tough and breaks with a snap.
Concolorous. Same color as.
Conical. More or less cone shaped.
Context. The inner or body tissue of a fruiting bodys' cap or stem.
Crosswalls. cell walls within the hyphae.
Crustaceous. Having a crust, crust-like.
Cuticle. A covering tissue consisting of a single layer or hyphae, skin-like.
Daedaloid. Tube mouths that are elongated and sinuous.
Decurrent. Gills descending down the stem.
Decurved. Margin of cap bent down.
Depressed. Center of the cap lower than the margin.
Dichotomous. Forking in pairs, often repeatedly.
Eccentric. Stem not attached to the center of the cap, off-centered, one-sided.
Effused-reflexed. Spread out over the substrata with the margin turned back to form a cap.
Felted. A somewhat matted subtomentum as to make a subglabrous surface.
Fibril. A thin and thread-like minute fiber.
Fibrillose. Surface having hairy, thin and thread-like filaments, arranged more or less parallel, either compactly or scattered.
Flaring. Annulus or volva spreading away from the stem.
Free. Gills not attached to the stem.
Furrowed. Grooves or wrinkles parallel on a surface.
Gelatinous. Jelly-like.
Gills. Knife-blade like structures on the undersurface of an Agaracaceae cap.
Glabrous. A smooth surface, without scales, hairs, etc.
Globose. Spherical or nearly so.
Granular. Covered with small granule-like particles.
Hirsute. Cap covered with long stiff fibers or hairs.
Hispid. Cap covered with stiff, bristle-like hairs.
Hyaline. Clear or colorless, transparent.
Hymenium. The spore-bearing surface of a basidiocarp.

Hyphae. A tubular filament, the unit structure of fungi.
Incrusted. Covered with a thin hard crust.
Incurved. Margin of cap bent inward.
Inrolled. Margin of cap rolled inward.
KOH. Potassium hydroxide solution used for detecting setae and setal hyphae by darkening, on contact, hymenial regions or context tissue containing setae.
Lignicolous. Growing in or on wood.
Matted. A rough or granular surface, made up of many intertwined or tangled strands.
Membranous. Like a membrane, thin and easily bent.
Multizonal. Having many or numerous zones.
Mycelium. A collective term for a mass of hyphae.
Obtuse. Rounded or blunt, greater than a right angle.
Plane. Cap having a flat surface.
Pleuroscystidia. A cystidia occurring on the face of a gill or tube.
Poroid. Having pores or approaching the conditions of possessing pores.
Pseudorhiza. A root-like extention of the stem, a union between the basidiocarp and the mycelium.
Pseudosclerotium. A mass of substrata held together by mycelium, resembling a sclerotium.
Pseudostipe. A stemplike body, differing in structure and origin from a true stem.
Pubescent. A covering of short, soft, downy hairs.
Recurved. Curved backward or downward.
Reflexed. Margin of cap turned up or back.
Resupinate. Fruiting structure flat on the substrata facing outward.
Rhizomorph. Strand or cord of mycelium often dark colored.
Rimose. Surface of cap cracked, having chinks or crevices.
Scaly. Having torn portions of the cuticle on the cap or stem; can be membranous, fibrillose, hairy, hard, erect, flat or patchlike.
Sclerotium. A harden mass of hyphae, a resting body from which a basidiocarp may develop.
Scurfy. Thin dry scales or flakes on a surface.
Serrate. Gills notched or toothed on the edge, like a saw.
Sessile. Cap without a stem, attached directly to the substrata.
Setae. Microscopic bristle-like hairs, darkening in KOH, found in the hymenium.
Silky. Covered with shiny, close fitting fibrils.
Sinuate. Gills having an indentation near the stem.
Stalked. Stemmed.
Stratified. Arranged in layers.
Striations. Having minute radiating furrows or lines.
Strigose. Having coarse or thick, long, stiff haris that are more or less appressed.
Substemmed. Somewhat stemmed, a short attachment.
Substrata. Material in or upon which a fungus grows or is attached to.
Subtomentose. A less pronounced condition than tomentose.
Tomentose. Like a woolen blanket, densely matted and wooly-like.
Tooth. Tooth-shaped; a spine in Hydnaceae bearing spores.
Tubes. Cylindrical hollow structures bearing spores whose openings form pores in the undersurface of some basidiocarps.
Ungulate. Hoof-shaped.

Unicolorous. Of the same color throughout.
Velvety. Coated with short, fine, soft, hairy, compact filaments.
Villose. Bearing long, weak, shaggy hairs.
Volva. The remainder of the universal veil. found at the base of certain genera of Agaricaceae.
Zonate. Cap marked with concentric bands or zones.

List of New Names of Polyporaceae listed in Bishop's key, alphabetically by old name.

Old name	New name
Daedalea ambigua	*Trametes elegans*
Daedalea berkeleyi	*Gloeophyllum mexicanum*
Daedalea confragosa	*Daedaleopsis confragosa*
Daedalea farinaceae	*Fuscocerrena portoricensis*
Daedalea juniperina	*Antrodia juniperina*
Daedalea unicolor	*Cerrena unicolor*
Favolus brasiliensis	*Polyporus tenuiculus*
Favolus rhipidium	
Fomes annosus	*Heterobasidion annosum*
Fomes calkinsii	*Wrightporia avellanea (?)*
Fomes conchatus	*Phellinus conchatus*
Fomes densus	*Phellinus johnsonianus (?)*
Fomes everhartii	*Phellinus everhartii*
Fomes fomentarius	*Fomes fomentarius*
Fomes fraxineus	*Perenniporia fraxinea*
Fomes geotropus	*Rigidoporus ulmarius*
Fomes igniarius v. laevigatus	*Phellinus laevigatus*
Fomes juniperinus	*Pyrofomes demidoffii*
Fomes langloisii	*Phellinus johnsonianus (?)*
Fomes lobatus	*Ganoderma lobatum*
Fomes marmoratus	*Fomes fasciatus*
Fomes meliae	*Fomitopsis meliae*
Fomes pini	*Phellinus pini*
Fomes pomaceus	*Phellinus pomaceus*
Fomes praerimosus	*Phellinus everhartii (?)*
Fomes rimosus	*Phellinus robineae*
Fomes robustus	*Phellinus robustus*
Fomes texanus	*Phellinus texanus*
Fomes torulosus	*Phellinus torulosus*
Ganoderma applanatum	*Ganoderma applanatum*
Ganoderma curtisii	*Ganoderma lucidum (?)*
Ganoderma lucidum	*Ganoderma lucidum*
Lenzites betulina	*Lenzites betulina*

Old name	New name
Lenzites saepiaria	*Gloeophyllum sepiarium*
Lenzites trabea	*Gloeophyllum trabeum*
Polyporus abietinus	*Trichapum abietinum*
Polyporus adustus	*Bjerkandera adusta*
Poluyporus amygdalinus	*Polyporus virgatus*
Polyporus anceps	*Dichomitus squalens*
Polyporus arcularius	*Polyporus arcularius*
Polyporus berkeleyi	*Bondarzewia berkelyi*
Polyporus biennis	*Abortiporus biennis*
Polyporus biformis	*Trichaptum biforme*
Polyporus cinnanbarinus	*Pycnoporus cinnabarinus*
Polyporus conchifer	*Trametes conchifer*
Polyporus crocatus	*Coriolopsis byrsina*
Polyporus croceus	*Hapalopilus croceus*
Polyporus cuticularis	*Inonotus cuticularis*
Polyporus dichrous	*Gloeoporus dichrous*
Polyporus durmmondii	*Trametes drummondii*
Polyporus dryadeus	*Inonotus dryadeus*
Polyporus dryophilus	*Inonotus dryophilus*
Polyporus dryophilus v. vulpinus	*Inonotus rheades*
Polyporus durescens	*Fomitopsis durescens*
Polyporus ectypus	*Trametes ectypus*
Polyporus elegans	*Polyporus elegans*
Polyporus fimbriatus	*Hydnopolyporus fimbriatus*
Polyporus fissilis	*Tyromyces fissilis*
Polyporus frondosus	*Grifola frondosa*
Polyporus fumosus	*Bjerkandera fumosa*
Polyporus galactinus	*Tyromyces galactinus*
Polyporus giganteus	*Meripilus giganteus*
Polyporus gilvus	*Phellinus gilvus*
Polyporus graveolens	*Globifomes graveolens*
Polyporus hirsutus	*Trametes hirsuta*
Polyporus hispidus	*Inonotus hispidus*
Polyporus hydnoides	*Hexagonia hydnoides*
Polyporus iodinus	*Cyclomyces iodinus*
Polyporus juniperinus	*Inonotus juniperinus*
Polyporus licnoides	

Old name	New name
Polyporus ludovicianus	*Inonotus ludovicianus*
Polyporus maximus	*Trametes maxima*
Polyporus mollis	*Leptoporus mollis*
Polyporus mutabilis	*Microporellus obovatus*
Polyporus nidulans	*Hapalopilus nidulans*
Polyporus obtusus	*Spongipellis unicolor*
Polyporus palustris	*Fomitopsis palustris*
Polyporus pargamenus	
Polyporus pavonius	*Trametes pavonia*
Polyporus pinisitus	*Trametes villosa*
Polyporus porrectus	*Inonotus porrectus*
Polyporus rigidus	*Rigidoporus lineatus*
Polyporus robiniophilus	*Perenniporia robiniophila*
Polyporus sanguineus	*Pycnoporus sanguineus*
Polyporus schweinitzii	*Phaeolus schweinitzii*
Polyporus sector	*Trichaptum sector*
Polyporus semipileatus	*Skeletocutis nivea*
Polyporus spraguei	*Fomitopsis spraguei*
Polyporus subectypus	*Trametes subectypus*
Polyporus submurinus	
Polyporus sulphureus	*Laetiporus sulphureus*
Polyporus supinus	*Fomitella supina*
Polyporus tenuis	*Trametes membranacea*
Polyporus texanus	*Inonotus texanus*
Polyporus tricholoma	*Polyporus tricholoma*
Polyporus tulipiferae	*Irpex lacteus*
Polyporus versatilis	*Trichaptum byssogenum*
Polyporus versicolor	*Trametes versicolor*
Polyporus vinosus	*Nigroporus vinosus*
Polyporus zonalis	*Rigidoporus lineatus*
Trametes cubensis	*Trametes cubensis*
Trametes hispida	*Coriolopsis gallica*
Trametes malicola	*Antrodia malicola*
Trametes rigida	*Coriolopsis rigida*
Trametes sepium	*Antrodia albida*
Trametes serialis	*Antrodia serialis*

List of new names of Polyporaceae listed in Bishop's key, alphabetically by new names

New name	Old name
Abortiporus biennis	*Polyporus biennis*
Antrodia albida	*Trametes sepium*
Antrodia juniperina	*Daedalea juniperina*
Antrodia malicola	*Trametes malicola*
Antrodia serialis	*Trametes serialis*
Bjerkandera adusta	*Polyporus adustus*
Bjerkandera fumosa	*Polyporus fumosus*
Bondarzewia berkelyi	*Polyporus berkeleyi*
Cerrena unicolor	*Daedalea unicolor*
Coriolopsis byrsina	*Polyporus crocatus*
Coriolopsis gallica	*Trametes hispida*
Coriolopsis rigida	*Trametes rigida*
Cyclomyces iodinus	*Polyporus iodinus*
Daedaleopsis confragosa	*Daedalea confragosa*
Dichomitus squalens	*Polyporus anceps*
Fomes fasciatus	*Fomes marmoratus*
Fomes fomentarius	*Fomes fomentarius*
Fomitella supina	*Polyporus supinus*
Fomitopsis durescens	*Polyporus durescens*
Fomitopsis meliae	*Fomes meliae*
Fomitopsis palustris	*Polyporus palustris*
Fomitopsis spraguei	*Polyporus spraguei*
Fuscocerrena portoricensis	*Daedalea farinaceae*
Ganoderma applanatum	*Ganoderma applanatum*
Ganoderma lobatum	*Fomes lobatus*
Ganoderma lucidum	*Ganoderma lucidum*
Ganoderma lucidum (?)	*Ganoderma curtisii*
Globifomes graveolens	*Polyporus graveolens*
Gloeophyllum mexicanum	*Daedalea berkeleyi*
Gloeophyllum sepiarium	*Lenzites saepiaria*
Gloeophyllum trabeum	*Lenzites trabea*
Gloeoporus dichrous	*Polyporus dichrous*

New name	Old name
Grifola frondosa	*Polyporus frondosus*
Hapalopilus croceus	*Polyporus croceus*
Hapalopilus nidulans	*Polyporus nidulans*
Heterobasidion annosum	*Fomes annosus*
Hexagonia hydnoides	*Polyporus hydnoides*
Hydnopolyporus fimbriatus	*Polyporus fimbriatus*
Inonotus cuticularis	*Polyporus cuticularis*
Inonotus dryadeus	*Polyporus dryadeus*
Inonotus dryophilus	*Polyporus dryophilus*
Inonotus hispidus	*Polyporus hispidus*
Inonotus juniperinus	*Polyporus juniperinus*
Inonotus ludovicianus	*Polyporus ludovicianus*
Inonotus porrectus	*Polyporus porrectus*
Inonotus rheades	*Polyporus dryophilus* var. *vulpinus*
Inonotus texanus	*Polyporus texanus*
Irpex lacteus	*Polyporus tulipiferae*
Laetiporus sulphureus	*Polyporus sulphureus*
Lenzites betulina	*Lenzites betulina*
Leptoporus mollis	*Polyporus mollis*
Meripilus giganteus	*Polyporus giganteus*
Microporellus obovatus	*Polyporus mutabilis*
Nigroporus vinosus	*Polyporus vinosus*
Perenniporia fraxinea	*Fomes fraxineus*
Perenniporia robiniophila	*Polyporus robiniophilus*
Phaeolus schweinitzii	*Polyporus schweinitzii*
Phellinus conchatus	*Fomes conchatus*
Phellinus everhartii	*Fomes everhartii*
Phellinus everhartii (?)	*Fomes praerimosus*
Phellinus gilvus	*Polyporus gilvus*
Phellinus johnsonianus (?)	*Fomes densus*
Phellinus johnsonianus (?)	*Fomes langloisii*
Phellinus laevigatus	*Fomes igniarius* var. *laevigatus*
Phellinus pini	*Fomes pini*
Phellinus pomaceus	*Fomes pomaceus*
Phellinus robineae	*Fomes rimosus*
Phellinus robustus	*Fomes robustus*
Phellinus texanus	*Fomes texanus*

New name	Old name
Phellinus torulosus	*Fomes torulosus*
Polyporus arcularius	*Polyporus arcularius*
Polyporus elegans	*Polyporus elegans*
Polyporus tenuiculus	*Favolus brasiliensis*
Polyporus tricholoma	*Polyporus tricholoma*
Polyporus virgatus	*Poluyporus amygdalinus*
Pycnoporus cinnabarinus	*Polyporus cinnanbarinus*
Pycnoporus sanguineus	*Polyporus sanguineus*
Pyrofomes demidoffii	*Fomes juniperinus*
Rigidoporus lineatus	*Polyporus rigidus*
Rigidoporus lineatus	*Polyporus zonalis*
Rigidoporus ulmarius	*Fomes geotropus*
Skeletocutis nivea	*Polyporus semipileatus*
Spongipellis unicolor	*Polyporus obtusus*
Trametes conchifer	*Polyporus conchifer*
Trametes cubensis	*Trametes cubensis*
Trametes drummondii	*Polyporus durmmondii*
Trametes ectypus	*Polyporus ectypus*
Trametes elegans	*Daedalea ambigua*
Trametes hirsuta	*Polyporus hirsutus*
Trametes maxima	*Polyporus maximus*
Trametes membranacea	*Polyporus tenuis*
Trametes pavonia	*Polyporus pavonius*
Trametes subectypus	*Polyporus subectypus*
Trametes versicolor	*Polyporus versicolor*
Trametes villosa	*Polyporus pinisitus*
Trichaptum biforme	*Polyporus biformis*
Trichaptum byssogenum	*Polyporus versatilis*
Trichaptum sector	*Polyporus sector*
Trichapum abietinum	*Polyporus abietinus*
Tyromyces fissilis	*Polyporus fissilis*
Tyromyces galactinus	*Polyporus galactinus*
Wrightporia avellanea (?)	*Fomes calkinsii*
(no new name found)	*Favolus rhipidium*
(no new name found)	*Polyporus licnoides*
(no new name found)	*Polyporus pargamenus*
(no new name found)	*Polyporus submurinus*