

Learn How to Identify Gilled Mushrooms to Genus

To End

With a little bit of practice and learning a few new words, you will be able to identify many wild gilled mushrooms to genus. The following exercise is intended to help you do this. One of the most important observations to help you accomplish this goal is to get a spore color by doing a spore print. Also, be sure to observe the habitat of the mushroom in the field. Once you have this information you will need a few more details about the mushroom itself and then you are ready to name your genus.

Please refer to the menu item on this website "Mushroom Info" then click on "Mushroom Identification" and then either/or "Learn The Parts" and/or "How To Make a Spore Print." This information will teach you the gill attachments, cap shapes, etc., and how to get a spore print from the mushroom's cap.

It is impossible to list all the gilled mushroom found in the Pacific Northwest in this easy key. Several genera have few species in the PNW, so they were not included. I tried to list the ones that were most likely to be found with some exceptions. So if you find a mushroom that defies being identified here, I hope you will look for a more indepth mushroom key.

Directions on how to identify your mushroom to genus:

- 1. Click on the menu item that best fits your mushroom's description. An example is: **Spore Print White to Yellow; Gills Free From Stalk**.
- 2. This will take you to a page that contains a list of mushrooms that are under that description.
- 3. Pick the description that best fits your mushroom on the list. Example: you pick Amanita.
- 4. Click on the name *Amanita* (below the description); it will take you to pictures of mushrooms in that genus. I have also included spore prints, if one was available.
- 5. If you want to go back to the description click on Amanita in the top left corner.
- 6. If you want to go back to the Key menu then click on the To Key in the right top part of the page.
- 7. Once you do this a few times you will get the hang of it. Go To Key
- 8. Use the links to navigate this key even if scrolling up and down is possible.

Gill attachments to know:

Adnate: gills are broadly attached to the stalk slightly above the bottom of the gills with most of the gills fused to the stalk.

Attached: There are a great number of variations between the extremes of free and decurrent, collectively called attached gills.

Decurrent: gills that extend down the stalk. *Pleurotus* and *Clitocybe* have decurrent gills.

Free: free gills do not extend to the stalk. Amanita, Lepiota, and Pluteus among others, have gills free from the stalk.

Notched: similar to adnate gills but diminish earlier and stay narrow for a small distance before attaching to the stalk.

This feature will form a ring of narrow gill attachments around the stalk that is quite distinctive. *Tricholoma* has notched gills.

Continue to the next slide for a list of photographers whose photos are featured in this program.

The Photographers

To Key

This Key is dedicated to the photographers whose mushroom photographs have made it possible. The abbreviation following each photographer's name in the list below is used to credit the source of photographs found throughout this Key. Visit the "The Photographers" page on this website for more information about these phenomenal people who have contributed significantly to expand the wealth of our mushroom knowledge.

Anna Moore - AM
Ben Pruitt - BP
Bob Blanchard - BB
Bruce Newhouse - BN
Catherine Ardrey - CA
Cascade Mycological Society - CMS
David Rust - DR
Elmer Galbi - EG
Freeman Rowe - FR
Glenn Walthall - GW

Freeman Rowe - FR
Glenn Walthall - GW
Harley Barnhart - HB
Kit Scates - KS
Matt Trappe - MT
Michael Beug - MB
Ron Patton - RP
Skye Weintraub - SW
Stewart Meyers - SM
Terry Gillespie - TG















Easy Key to Gilled Mushrooms Menu

To Directions

Spore Color White to Yellow Gills Free from Stalk

Spore Color White to Yellow
Size Small to Medium
Cap & Stalk Different in Texture

Spore Color White to Yellow
Gills Attached
Grows Mostly on Wood

Spore Color Pink to Salmon
Gills Free from Stalk

Spore Color Pink to Salmon
Size Small to Medium
Cap & Stalk Different in Texture

Spore Color Pink to Salmon
Gills Attached
Grows Mostly on Wood

Spore Color Brown to Rusty Brown
Gills Free from Stalk

Spore Color Brown to Rusty Brown
Size Small to Medium
Cap & Stalk Different in Texture

Spore Color Brown to Rusty Brown
Gills Attached
Grows Mostly on Wood

Spore Color Chocolate or Purple-Brown to Black Gills Free from Stalk Spore Color Chocolate or
Purple-Brown to Black
Size Small to Medium
Cap & Stalk Different in Texture

Spore Color Chocolate or
Purple-Brown to Black
Gills Attached
Grows Mostly on Wood





Spore Color White to Yellow
Gills Mostly Adnate to Notched
Grows Mostly on Soil or Moss

Spore Color Pink to Salmon
Gills Mostly Adnate to Notched
Grows Mostly on Soil or Moss

Spore Color Brown to Rusty-brown
Gills Mostly Adnate to Notched
Grows Mostly on Soil or Moss

Spore Color Chocolate or
Purple Brown to Black
Gills Mostly Adnate to Notched
Grows Mostly on Soil or Moss

Spore Color White to Yellow
Gills Mostly Adnate to Decurrent
Grows Mostly on Soil or Moss

Spore Color Pink to Salmon
Gills Mostly Adnate to Decurrent
Grows Mostly on Soil or Moss

Spore Color Brown to Rusty Brown
Gills Mostly Adnate to Decurrent
Grows Mostly on Soil or Moss

Spore Color Chocolate or
Purple Brown to Black
Gills Mostly Adnate to Decurrent
Grows Mostly on Soil or Moss

The page you selected, disabled in this <u>sample version</u>, is available in the <u>member version</u> of the Key.

Information on becoming a member of this website can be found <u>here</u>.

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Spore Color White to Yellow Gills Free from Stalk

Size medium to large with a distinctive elegant look. Resembles a small egg in the button stage that can be confused with puffballs. Universal veil present, usually leaving remnants, warts, or patches on the cap, or a volva (sack, cup, collar, or series of scaly rings) at the base of the stalk. Cap smooth with warty, a cottony patch, or other veil tissue present; margin may be lined; usually dry. Gills usually white, creamy, yellow or pale gray; free from the stalk or nearly so; close. Gills never run down the stalk (decurrent). Partial veil often present and forms a membranous ring on the stalk that may be large and skirt-like. Stalk central, usually hollow or stuffed in age; cleanly separable from the cap. May need to dig out the base of the mushroom to see the volva. Use care since the volva can be fragile and easily destroyed. Spore deposit white. Grows on the ground mostly in the woods, never clustered. Causes many of the fatalities resulting from mushrooms poisonings.

Amanita

Size medium to large. Cap detaches cleanly from stalk; covered with large scales or may be grainy or smooth. Gills free from stalk. Ring simple to double-edged, pendant, persistent, and often movable. May have a large bulb at the base of the stalk or enlarged. Spore print white to off-white with one exception where it is green, but this mushroom is not thought to be in the PNW. Often found in urban habitats in disturbed soil.

Chlorophyllum

Size small to large. Cap often detaches from stalk in a ball and socket joint; cap white, tan, brownish or reddish, usually distinctly scaly in age with a smooth center, sometimes bald; usually dry or slightly viscid. Gills free from stalk; white to pallid or yellowish; close. Partial veil present usually leaving a ring on the stalk; movable, but may disappear. Stalk surface smooth, textured, or scaly especially below the ring; interior hollow; cleanly separable from the cap; central; base often enlarged. Spore deposit white to cream. Ground dwelling usually growing on dead plant debris (leaves, needles, wood chips, etc.) Smaller ones favor heavily forested and cultivated areas. Larger ones grow in waste places, roadsides, lawns, pastures, gardens, and open woods. Many are poisonous, some are lethal, especially the woodland species.

Lepiota

AmanitaSpore Color White Gills Free from Stalk

Amanita cothurnata

















To Key

ChlorophyllumSpore Color White Gills Free from Stalk









<u>Lepiota</u> <u>To Key</u>

Spore Color White Gills Free from Stalk



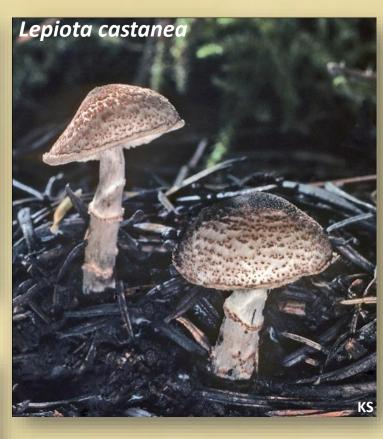
















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Spore Color Brown to Rusty-brown Gills Attached Grows Mostly On Wood

Cap is finely velvety when young but becomes bald in age; may be shell- or fan-shaped; becomes flatter in age; dry; color tan, yellow-brown or orangish brown; margin rolled inward at first, often with a somewhat scalloped appearance. Flesh bruises reddish-brown when injured. Cap and gills easily separated, often as a layer. Gills close; may be forked, cross-veined, crimped, or corrugated, especially near the stalk. Gills are brown-staining; may run deeply down the stalk (decurrent). No veil or ring. Stalk velvety; dark brown to black. Some have a stalk that is off-centered, others lack a stalk or have only a stubby, lateral structure attaching the cap directly to the wood. Spore deposit yellowish-brown to brownish. Found mostly on decaying wood in conifer or mixed woods.

Tapinella

Size medium to large. Cap rounded becoming almost flat; may be slightly depressed or have a low central bump. Cap color is usually bright yellow to rusty-orange; surface dry; silky to scaly; fleshy. Flesh may stain blue-green. Gills attached and notched; may descend the stalk slightly; may be yellow to rusty-orange to bright orange. Usually has a partial veil sometimes forming a ring on the stalk. Ring may be well-developed, membranous, and skirt-like; sometimes only has a thin ring zone. Stalk usually fairly central and fleshy. Spore deposit orange to bright rusty-brown. Grows mostly on wood. The wood may be buried or so decomposed that it looks like they are growing in soil. Taste bitter. Cap turns blackish with KOH.

Gymnopilus

Size usually medium. Cap usually viscid and/or scaly, silky, or has fibrils, but may become smooth or powdery; dry to viscid to glutinous; may appear zoned; may have remnants on the cap margin. Gills usually attached but may descend the stalk slightly; fibrous to membranous. Partial veil present that is membranous, slimy or has fibers; forms a ring on the stalk that can disappear, but ring may be absent. Stalk often scaly or with fibrils, especially below the ring; central to somewhat off-center but not lateral; usually fleshy; often slender. Spore deposit dull brown to rusty-brown. Often robust and grows in large clusters, mostly on dead, decaying wood such as limbs, logs, stumps, and wood debris; also on the wounds of living trees; sometimes on the ground.

Pholiota

Spore Color Brown to Rusty-brown Gills Attached Grows Mostly On Wood



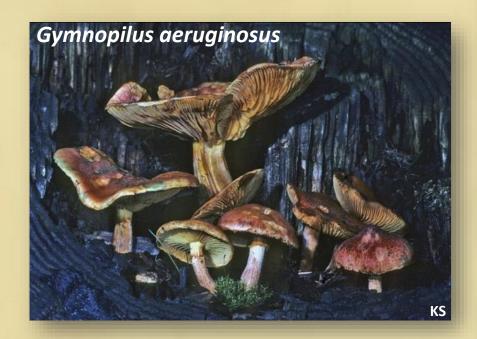




Gymnopilus

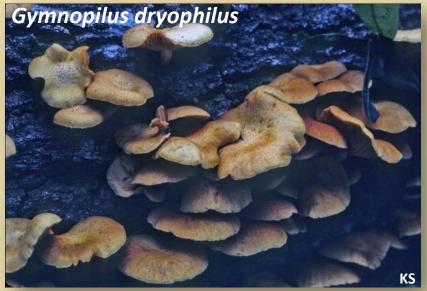
To Key

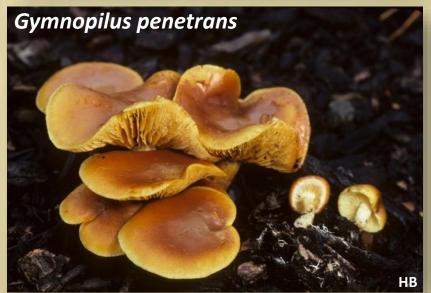
Spore Color Brown to Rusty-brown Gills Attached Grows Mostly On Wood





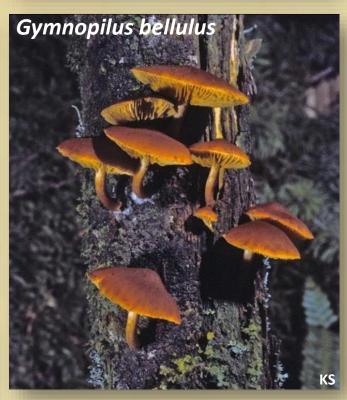


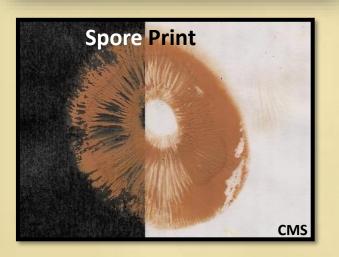












Pholiota

Spore Color Brown to Rusty-brown Gills Attached

Grows Mostly On Wood











To Key













Spore Color Chocolate or Purple-brown to Black Gills Mostly Adnate to Decurrent Grows Mostly On Soil or Moss

Size medium to large. Commonly known as "pine-spikes" or "spike-caps" based on their shape and because they are often found growing in association with pine trees. Cap rounded to conical and may have a central bump or be flat or depressed; smooth or woolly; dry or viscid when moist. Flesh orange, salmon, to reddish; purple in decay. Gills broadly attached (adnate) and descend the stalk (decurrent); color is orange, yellow-orange or brownish-yellow when young; blackens in age; widely spaced; thick. Lacks a partial veil; ring is only a zone of hairs or fibers that soon disappear. Stalk fleshy; somewhat central; dry. Spore deposit olive, smoky-gray to black. Grows on the ground. May be parasitic on some boletes, especially *Suillus* species.

Chroogomphus

Size small to medium. Cap usually smooth; pink to purple-gray, or brown-tinted; has a sticky/slimy surface and a varnished appearance when dry. The slime/viscid veil can be observed in very young mushrooms and later with the presence of slime on the stalk. Flesh white to grayish. Gills broadly attached (adnate) and distinctly descend the stalk (decurrent); somewhat waxy but soft; close to well-spaced; whitish when young becoming smoky-gray and black in age. Partial veil usually present but may disappear or leave only a slight ring zone on the stalk. Stalk fleshy, usually central with the lower part of the stalk often bright yellow, but not always. Spore deposit smoky-gray to black. Grows on the ground; favors conifers.

Gomphidius

Spore Color Chocolate or Purple-brown to Black Gills Mostly Adnate to Decurrent Grows Mostly On Soil or Moss













Spore Color Chocolate or Purple-brown to Black

Gills Mostly Adnate to Decurrent Grows Mostly On Soil or Moss











