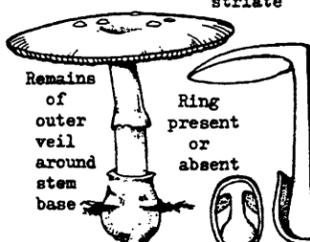
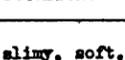
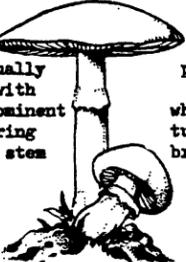
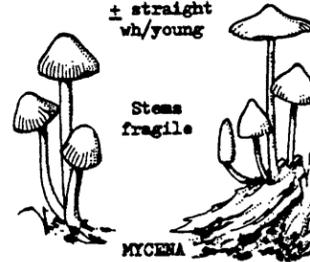
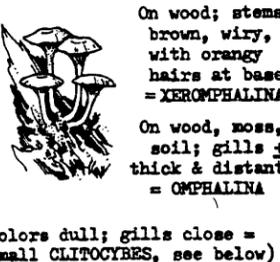
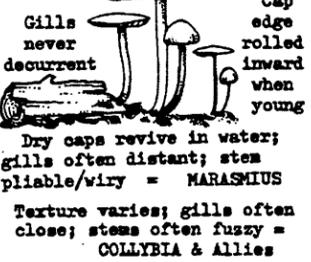
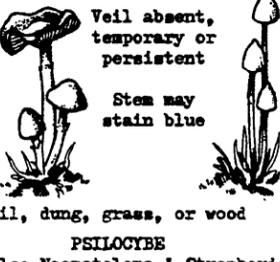
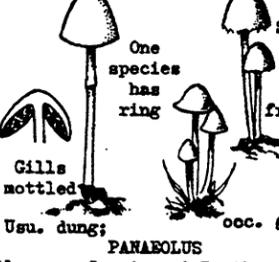
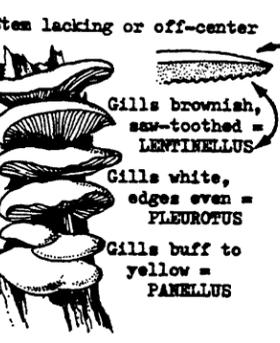
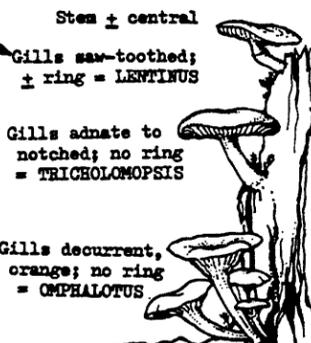
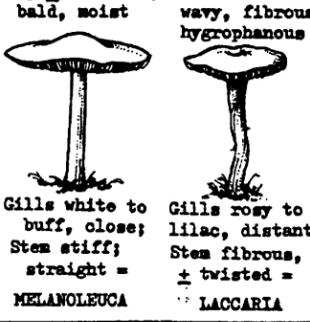
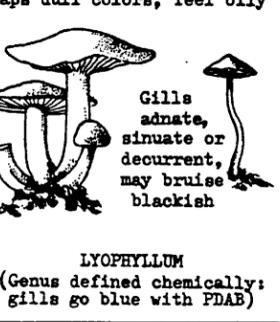
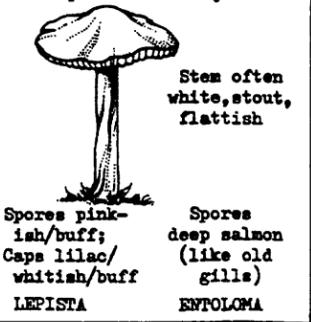
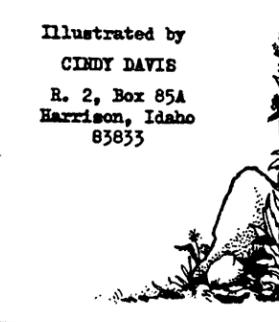
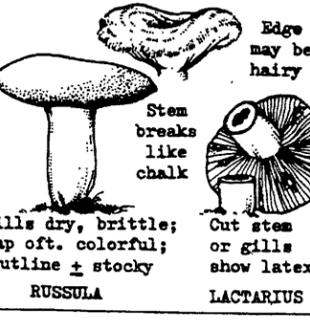
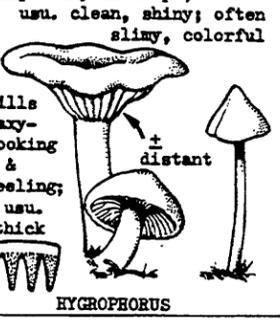
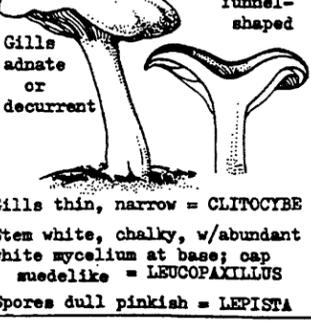
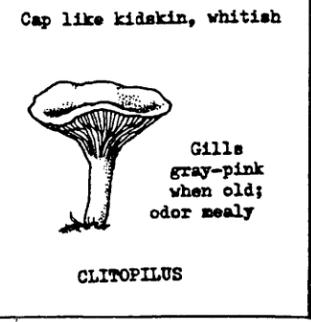
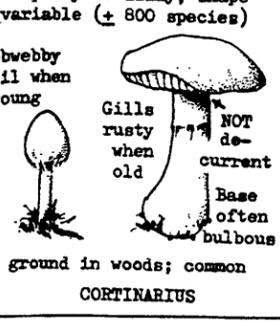
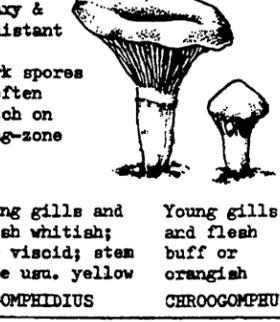
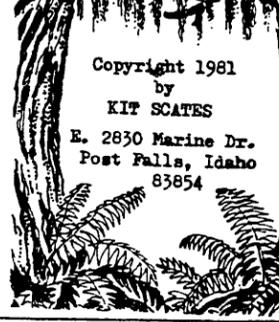


SPORE COLOR
→

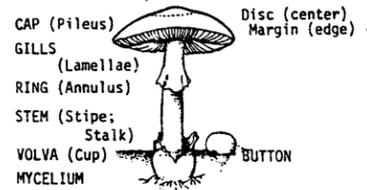
←
SPORE COLOR

EASY KEY TO COMMON GILLED MUSHROOMS

	I: WHITE TO YELLOW		II: PINK TO SALMON		III: YELLOW-BROWN TO RUSTY BROWN		IV & V: CHOCOLATE OR PURPLE BROWN TO BLACK				
Top Row FREE GILLS Cap & Stem Easily Separated	<p>Cap smooth, warty, &/or striate</p>  <p>Remains of outer veil around stem base</p> <p>Ring present or absent</p> <p>Some are deadly poisonous!</p> <p>AMANITA</p>	<p>Cap scaly, grainy, or smooth, rarely viscid</p>  <p>Ring on stem movable, may disappear</p> <p>LEPIOTA</p>	<p>Cap bald to streaked, usually slimy or sticky</p>  <p>Usually w/ring or ring-zone</p> <p>LIMACELLA</p>	 <p>Gills soft, close</p> <p>On wood, or sawdust; other mushrooms, etc.</p> <p>PLUTEUS</p>  <p>Sac-like volva at base</p> <p>On dung, wood, or in forests</p> <p>VOLVARIELLA</p>	<p>KEY TO SYMBOL & WORDS</p> <p>± = more or less (variable); = with or without</p> <p>hygrophanous = darker and translucent when wet; paler and opaque when dry</p> <p>striate = streaked with thin lines or furrows (radial in water-soaked caps)</p> <p>viscid ("viscid") - with gelatin cells which turn slimy in wet weather, dry in dry weather, and sticky between times!</p>	<p>CAP SHAPES</p>  <p>Conic</p>  <p>Convex</p>  <p>Umbonate</p>  <p>Bell-shaped</p>	<p>GILL ATTACHMENT</p>  <p>Free</p>  <p>Adnate</p>  <p>Sinate = Notched</p>  <p>Decurrent</p>	<p>Cap dry, smooth to scaly</p>  <p>Usually with prominent ring on stem</p> <p>AGARICUS</p>	<p>Cap smooth, flaky, or scaly</p>  <p>Gills crowded, dissolve into black ink w/ age or become paper thin</p> <p>Young caps bullet-shaped</p> <p>Soil, wood, dung, straw, etc.</p> <p>COPRINUS</p>	Top Row FREE GILLS Cap & Stem Easily Separated	
2nd Row SLIM STEMS Texture Different From Cap	<p>Caps thin, fragile</p> <p>Cap edge ± straight w/young</p>  <p>Stems fragile</p> <p>MYCENA</p>	<p>Small, thin, w/dip in center; yell. or orange color present</p>  <p>On wood; stems brown, wiry, with orange hairs at base = XEROMPHALINA</p> <p>On wood, moss, soil; gills ± thick & distant = OMPHALINA</p> <p>(Colors dull; gills close = small CLITOCYBES, see below)</p>	<p>Mature cap convex/flat/umbonate</p>  <p>Gills never decurrent</p> <p>Dry caps revive in water; gills often distant; stem pliable/wiry = MARASMIUS</p> <p>Texture varies; gills often close; stems often fuzzy = COLLYBIA & Allies</p>	<p>Caps bald, thin-fleshed, split easily; brown or dull</p>  <p>In grass or woods</p> <p>NOLANEA</p> <p>Caps silky to scaly, blue-black or bright</p>  <p>On wood or in forests</p> <p>LEPTONIA</p>	<p>Caps thin, hygrophanous, striate when moist</p>  <p>With or without ring</p> <p>On wood, moss, humus, etc.</p> <p>GALERINA</p>	<p>Cap dry, ± striate</p>  <p>w/ or w/o ring</p> <p>Grass, dung, rotting wood</p> <p>CONOCYBE</p>	<p>Cap slimy, soft, striate, often ± dissolving</p>  <p>Gills cinnamon, stem usu. fragile</p> <p>On dung or in grass</p> <p>BOLETINUS</p>	<p>Cap nipped, convex, or flat; Usu. viscid, hygrophanous</p>  <p>Veil absent, temporary or persistent</p> <p>Stem may stain blue</p> <p>Soil, dung, grass, or wood</p> <p>PSILOCYBE</p> <p>Also Naematoloma & Stropharia</p>	<p>Caps bald except occ. fringe on edge; rarely flattening in age</p>  <p>One species has ring</p> <p>Stems thin but not fragile</p> <p>Gills mottled</p> <p>Usu. dung; occ. grass</p> <p>PANAEOLUS</p> <p>Also see Coprinus & Psathyrella</p>	2nd Row SLIM STEMS Texture Different From Cap	
MOSTLY on WOOD Gills Attached	<p>Ring on stem</p>  <p>Cap 1-3 ins, grainy; on ground = CYSTODERMA</p> <p>Cap 3-6 ins; wood or soil = ARMILLARIA</p> <p>Cap 6-18 ins; ring double = CATATHELASMA</p>	<p>Stem lacking or off-center</p>  <p>Gills brownish, saw-toothed = LEPTINELLUS</p> <p>Gills white, edges even = FLEUROFUS</p> <p>Gills buff to yellow = PANELLUS</p>	<p>Stem ± central</p>  <p>Gills saw-toothed; ± ring = LEPTINUS</p> <p>Gills adnate to notched; no ring = TRICHOLOMOPSIS</p> <p>Gills decurrent, orange; no ring = OMPHALOTUS</p>	<p>No stem</p>  <p>Wood, dung; rare; small; silky; gray/white/brown</p> <p>CLADOPUS</p> <p>Caps woolly; yell/orange; gills close; odor bad</p>  <p>PHYLLOPORUS</p>	<p>Stem lacking</p>  <p>Caps attached on one side or on their tops to wood; usu. shelving</p> <p>CREPIDOTUS</p>	<p>Caps usu. silky, not viscid</p>  <p>Spores rusty-orange</p> <p>GYMNOPIIUS</p>	<p>Caps scaly/silky, occ. smooth, often viscid</p>  <p>With or without ring on stem</p> <p>Spores brown</p> <p>PHOLIOTA</p>	<p>Cap usu. yellow to cinnamon</p>  <p>Bits of cobwebby veil on edge</p> <p>On rotting wood or debris</p> <p>NAEMATOLOMA</p>	<p>Caps thin, fragile, hygrophanous; often w/fine loose white hairs</p>  <p>Stems usu. fragile, often white</p> <p>With or without fringe or ring</p> <p>Usu. tufted on rotting wood, rarely on dung, burns</p> <p>PSATHYRELLA</p>	MOSTLY on WOOD Gills Attached	
Gills Mostly ADNATE to NOTCHED	<p>Cap ± umbonate, bald, moist</p>  <p>Gills white to buff, close; Stem stiff; straight = MELANOLEUCA</p>	<p>Cap aging wavy, fibrous; hygrophanous</p>  <p>Gills adnate, sinuate or decurrent, may bruise blackish</p> <p>LYOPHYLLUM (Genus defined chemically; gills go blue with PDAB)</p> <p>LACCARIA</p>	<p>Cap dull colors, feel oily</p>  <p>Gills usu. notched</p> <p>TRICHOLOMA</p>	<p>Cap dry to slimy, smooth to scaly</p>  <p>Cap bald to silky</p> <p>Stem often white, stout, flattish</p> <p>Spores pinkish/buff; Caps lilac/whitish/buff</p> <p>LEPISTA</p>	<p>Cap dry/moist; ± smooth; w/radishy odor</p>  <p>Stem usu. pale, scurfy at top</p> <p>HERELOMA</p>	<p>Cap dry/moist; fibrous/silky; edge often cracks</p>  <p>Gill edge often white</p> <p>Gills clay-color to gray-brown</p> <p>INOCYBE</p>	<p>Most species have membranous ring</p>  <p>Cap w/wrinkled edge and frosted center = ROZITES</p> <p>Gills age dull brown; some species w/o veil = AGROCYBE</p> <p>See also Pholiota</p>	<p>Cap usu. slimy or sticky</p>  <p>With or without fringe or ring</p> <p>In varied habitats</p> <p>STROPHARIA</p>	<p>Illustrated by CINDY DAVIS R. 2, Box 85A Harrison, Idaho 83833</p> 	Gills Mostly ADNATE to NOTCHED	
Gills Mostly ADNATE to DECURRENT	<p>Cap convex to saucer-like</p>  <p>Gills dry, brittle; Cap oft. colorful; Outline ± stocky</p> <p>RUSSULA</p>	<p>Caps vary in shape; usu. clean, shiny; often slimy, colorful</p>  <p>Gills waxy-looking & feeling; usu. thick</p> <p>HYGROPHORUS</p>	<p>Caps often funnel-shaped</p>  <p>Gills adnate or decurrent</p> <p>Gills thin, narrow = CLITOCYBE</p> <p>Stem white, chalky, w/abundant white mycelium at base; cap suedelike = LEUCOPAXILLUS</p> <p>Spores dull pinkish = LEPISTA</p>	<p>Cap like kidakin, whitish</p>  <p>Gills gray-pink when old; odor mealy</p> <p>CLITOPILUS</p>	<p>Cap dry to slimy; shape variable (± 800 species)</p>  <p>Cobwebby veil when young</p> <p>Gills rusty when old</p> <p>Base often bulbous</p> <p>On ground in woods; common</p> <p>CORTINARIUS</p>	<p>Stem central, off-center, or occ. lacking when on wood; gills may be pore-like near stem</p>  <p>Gills brownish, bruise dk.-brn. = PAXILLUS</p>	<p>Gills waxy & distant</p>  <p>Gills brt. yell. bruise blue = PHYLLOPORUS</p>	<p>Gills dark spores often catch on ring-zone</p>  <p>Young gills and flesh whitish; cap viscid; stem base usu. yellow</p> <p>GOMPHIDIUS</p>	<p>Young gills and flesh buff or orangish</p> <p>CHEROGOMPHUS</p>	<p>Copyright 1981 by KIT SCATES E. 2830 Marine Dr. Post Falls, Idaho 83854</p> 	Gills Mostly ADNATE to DECURRENT

EASY GUIDE TO MUSHROOMS DESCRIPTIONS

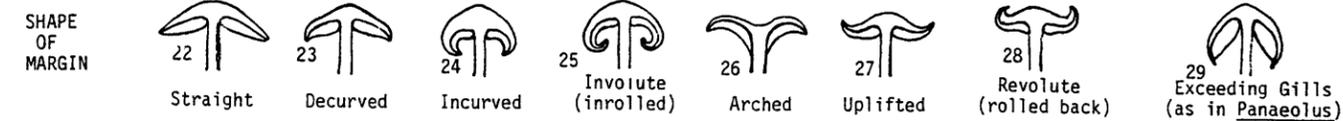
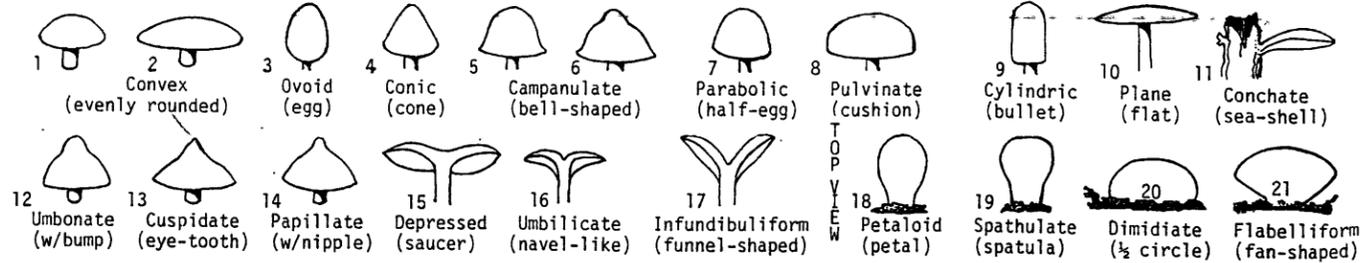
Terms on this side are arranged in the order of mushroom descriptions used by most field guides. Thus it is easy to check a description or make notes on a collection of your own. These terms, plus many others, are arranged in alphabetical order on the reverse side.



Copyright 1982
by
Kit Scates
E. 2830 Marine Dr.
Post Falls, Idaho 83854
Illustrated by Cindy Davis

A. SIZE: Several mature caps, smallest to largest, are measured for breadth at widest point; also height (only when taller than wide); then range of sizes is given.

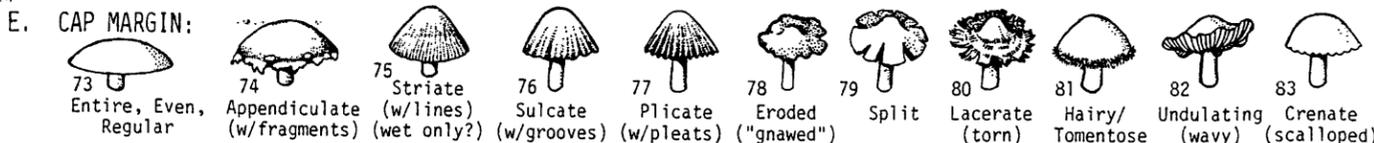
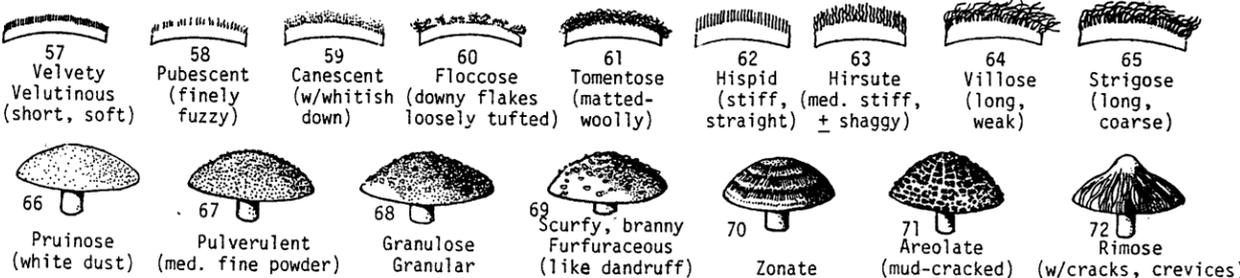
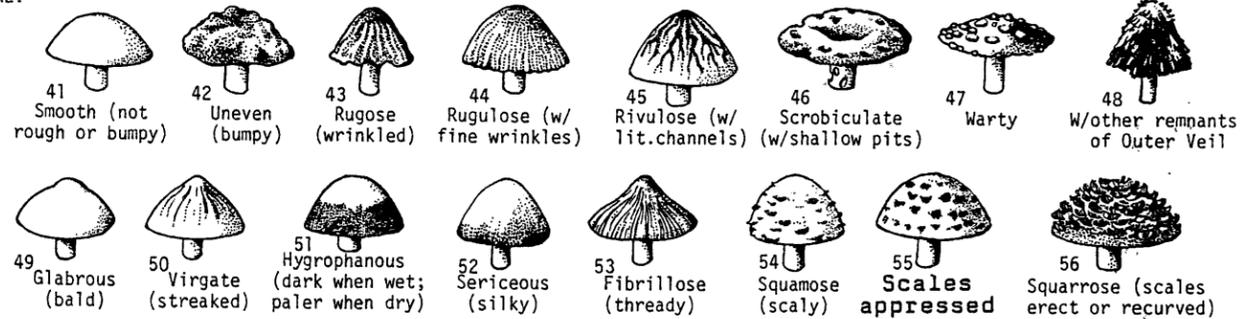
B. SHAPE (YOUNG & OLD):



C. COLOR: First should come general color terms, then exact terms from a color book, if possible, for (1) young and old, (2) disc & margin, (3) background if different from fibrils, (4) changes on bruising, (5) wet & dry if hygrophanous.

D. SURFACE FEATURES:

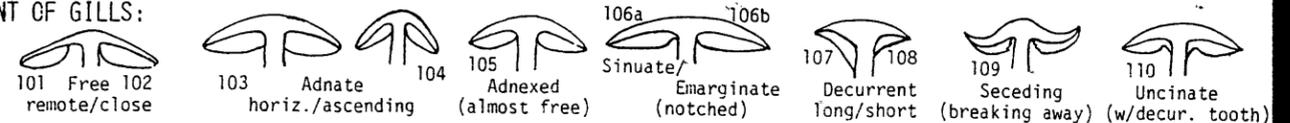
(1) DRYNESS: (a) If dry: Shiny; Dull; Silky. (b) If not dry: Moist/lubricous/greasy; Viscid/sticky/tacky; Glutinous (slimy)
(2) TEXTURE:



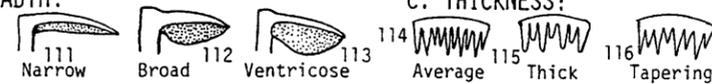
F. CONTEXT (FLESH): 1. Color: moist or dry; under cuticle (if different)
2. Thickness: at disc and at margin
3. Texture: soft, spongy, firm, compact, rigid, brittle, corky, etc.
4. Latex color, changing after exposure?, taste, abundance

G. ODOR: None; Fruity; Lemony; Anise (licorice); Farinaceous (like fresh meal); Pungent; Nauseous; Nitrous; Earthy; Spermatic; Raphanoid (like radishes); Green corn; Almond Extract (benzaldehyde); etc.
TASTE: (immediate or later?): Mild; Bitter; Acrid (=puckery? astringent)/Peppery; Agreeable; Farinaceous (like fresh meal); etc.

A. ATTACHMENT OF GILLS:

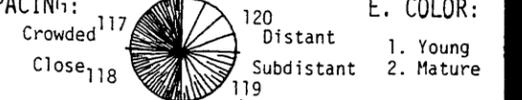


B. BREADTH:



C. THICKNESS:

D. SPACING:



E. COLOR:

1. Young
2. Mature

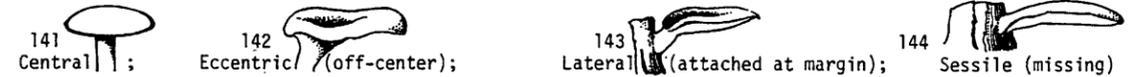
F. EDGES:



G. MISC.

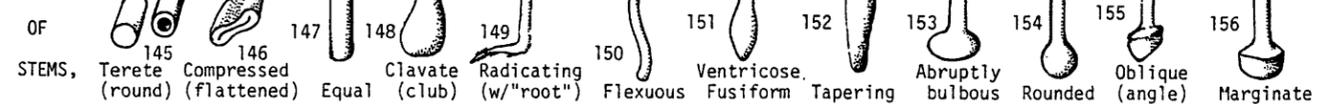


A. LOCATION OF STEM:

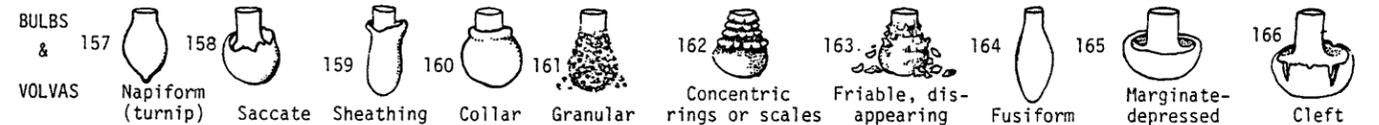


B. SIZE: Length (base to junction x Diameter, at top, also at widest point below if difference is great)

C. SHAPES



BULBS & VOLVAS



D. COLOR & CHANGES: Same as cap, PLUS differences between base & apex, interior & exterior, bruises, etc.

E. SURFACE:



F. TEXTURE: Fragile; Pliable; Chalky; Rigid; Fibrous; Firm; Breaking with a snap, etc.

G. INTERIOR: Solid; Hollow; Tubular; Cavernous; Stuffed with pith (describe)

IV. PARTIAL (INNER) VEIL & REMAINS

A. COLOR
B. TEXTURE: Membranous (skin-like); Cortinate (cobwebby); Fibrillose (thready); Gelatinous (slimy)--See RINGS below.
C. FATE: Disappearing? Leaving fragments on cap? Ring (annulus)? Annular zone? Describe as below.
D. RING (ANNULUS): Describe appearance, size, position (superior, median, inferior), persistence.



V. UNIVERSAL (OUTER) VEIL & REMAINS

A. DESCRIPTION: (1) Texture; (2) Method of rupturing; (3) Fate: disappearing? remnants where?
B. VOLVA: (1) Absent or present; (2) Size; (3) Shape, see above; (4) Color; (5) Texture

VI. MYCELIUM, RHIZOMORPHS, ETC. Describe color and texture, etc.

VII. HABIT,

HABITAT,

PLANT ASSOC. & LOCATION

- Single, solitary
- Scattered (1-2 ft. apart)
- Gregarious (growing in a group)
- Caespitose (clustered, not joined)
- Connate (fused at base)
- Imbricate (overlapping)
- In troops or rings

- Terrestrial (on soil)—bare, burned, disturbed?
- Lignicolous (on wood)—what kind of tree?
- Humicolous (on humus, duff)—conifer, other?
- Coprophilous (on dung)—what kind?
- In grassy area—lawn, pasture, etc.?
- In forest—conifer, hardwood, mixed?
- Miscellaneous—moss, cones, needles, what?

- With what kinds of tree or other plants?
- Where? What mountain, creek, etc.? What county?

II. GILLS

III. STEM

EASY GUIDE TO MUSHROOM DESCRIPTIONS

Numbers refer to illustrations on the reverse side.
Additional terms not suitable for illustration are defined. Longer definitions are given to amplify a few difficult terms.

Abruptly bulbous: 153
Acrid: biting on the tongue
Acute: 129
Adnate: 103
Adnexed: 105
Agaric: any mushroom with gills,
Alutaceous (color): light leather-colored; pale tan
Anastomosing: 140
Annular Zone: ring-like band on stem where partial veil was originally attached, often indicated by a change of color or texture or by a deposit of spores
Annulus: ring or band of skirt-like tissue encircling the stem after the partial (inner) veil breaks, 197-207
Apex (adjective, Apical): the top of the stem or cap, etc.
Applanate (of cap): flattened out or horizontally expanded
Appressed (of scales): 55, lying flat; ironed down
Arched: 26
Arcuate (of gills): shaped like the arc of a bow
Arid (of gills): dry, somewhat like parchment
Areolate: 71
Ascending: 104
Banded: 167
Broad (of gills): 112
Button: the very young stage of any mushroom
Caespitose: growing in clusters but not grown together
Campanulate: 5 & 6
Canescent: 59
Cartilaginous (of stem): tough-brittle, breaking with a snap, like cartilage or crisp celery stalks
Cavernous (of stem interior): with hollow chambers much like caverns
Chalky (of stem): breaking crossways much like chalk, without fibrous strings
Clavate: 148
Cleft: 166
Close: (of gill attachment, 102; of gill spacing, 118)
Collar: 160
Compressed: 146
Concentric (of rings or scales or zones): parallel circles with same center
Conchate: 11
Conic: 4
Connate (of stems): grown together
Context: flesh
Convex: 1 & 2
Coprophilous: growing on dung
Cortina (adjective, Cortinate): a partial veil composed of fine filaments like a cobweb
Costate: 172
Crenate: (of cap margin, 83; of gill edge, 128)
Crisped: 131
Crowded: 117
Cup: sack-like volva
Cuspidate: 13
Cuticle: the outermost covering layer of the cap or stem of a mushroom
Cylindric, Cylindrical: 9, with sides essentially parallel
Decurved: 23
Decurrent: 107-108
Deliquescent (of gills): dissolving into liquid
Depressed: 15
Dimidiate: 20
Distant (of gill spacing): 120
Double ring: 197-200
Eccentric (of stem): 142
Emarginate (of gills) 106b
Entire: (of cap margin, 73; of gills, 123)
Equal: (of gills, 137; of stem, 147)
Eroded: (of cap, 78; of gills, 125)
Even: same as Entire, above
Fabaceous: like green peas or beans
Fairy Ring: an arc or circle of gilled mushrooms or puffballs, growing from a mycelium that slowly enlarges outward from its center
Farinaceous: like freshly ground meal
Ferruginous (color): rusty red
Fibrillose: 53
Fibrous: 169
Fimbriate: 126
Flabelliform: 21
Flexuous: 150
Floccose: (of cap, 60; of partial veil, 200)
Forking: 139

Free: 101 & 102
Friable: 163
Fruiting Body: the term applied to the mushroom as opposed to the mycelium, which is the real plant
Fulvous (color): reddish-cinnamon-brown
Fungoid: pertaining to fungi; (of odor or taste) rather earthy, much like raw puffballs
Furfuraceous: 69
Fuscous (color): dark smoky purplish-brown
Fusiform: (of stem, 151; of bulb or volva, 164)
Genus (plural = Genera): A unit of classification consisting of one or more related species
Glabrous: 49
Glandular-dotted: 174b
Glaucous: (of cap) covered with a fine white bloom (like some grapes) that is easily rubbed off
Granular, Granulose: (of cap, 68; of volva, 161)
Granular Rash: same as Glandular-dotted, above
Gregarious: growing in groups but not in clusters
Hairy: 81
Hirsute: 63
Hispid: 62
Hoary: (of surface) covered with dense whitish or grayish silky down
Hyaline: colorless, like water
Humicolous: growing on humus (duff of forest floor)
Hygrophanous: 51, taking up water so as to be darker and moister when wet, but paler and opaque when dry
Incurved: 24
Inferior (of ring) below the middle of the stem
Infundibuliform: 17
Intervene (of gills): 136
Involute: 25
Lacerate: 80
Lacunose: 170
Lamellae: gills
Lateral: 143
Latex: a juice that may be clear, milky, or colored
Lignicolous: growing on wood
Longitudinally Striate: 171
Lubricous: with moist, soapy feel; greasy to the touch
Marginate: (of gills, 127; of bulb, 156)
Median (of ring): located about in the middle of the stem
Membranous: like a membrane--thin, soft, and pliable
Mycelium: the mass of fungal filaments which are the real plant
Napiform: 157
Narrow (of gills): 111
Oblique: 155
Obtuse: 130
Ochraceous, Ochre (color): dingy yellow to dull brownish yellow
Ovoid: 3, shaped like an egg, term used for solid objects
Pallid (color): of a pale, indefinite color
Papillate: 14
Parabolic: 7
Pellucid: translucent
Pendant: hanging
Peronate (of stem): 168 & 206-207, sheathed from below upward by remains of a universal veil, looking much like a boot or heavy sock
Persistent (of ring): enduring, not withering or disappearing
Petaloid: 18
Pith: central stuffing in some stems
Pileus: cap or corresponding structure like a head, etc.
Plane: 10
Plicate: 77
Pruinos: 66
Pseudorhiza: a root-like extension of the stem, going deep into the ground or other substrate
Pubescent: 58
Pulverulent: 67
Pulvinate: 8
Punctate: 174a
Radicating: 149
Raphanoid: resembling radishes
Remote: 101
Reticulate: 175
Revolute: 28
Rhizomorphs: "rootlets;" visible strands or cords of mycelium
Ribbed: 172
Rimose: 72
Ring Zone: same as Annular Zone
Rivulose: 45
Rounded (of bulb): 154

Rufous (color): dull red like the back of a red fox
Rugose: 43
Rugulose: 44
Saccate: 158
Scales appressed: 55
Scabrous (of surface): 173, rough with short rigid projections, looking something like a rasp
Scalloped: 83
Scattered: growing several inches to several feet apart, perhaps from same mycelium
Scrobiculate: 46
Scurfy: 69
Seceding (of gills): 109, breaking their attachment; (usually can be distinguished from truly free gills by torn bits on stem)
Serrate: 124
Serrulate: 124
Sericeous: 52
Sessile: 144
Sheathing: 159
Sinuate: 106a
Smooth (of surface): 41, not bumpy or rough in texture
Spathulate: 19
Species (singular & plural = species): a group of individuals agreeing in certain features which appear again in their progeny. (The exact definition of this term will probably be amended as more is learned, like many other terms.)
Split: 79
Squamose: 54
Squarrose: 56
Stellate: star-shaped
Stipe: mycological term for the stem or stalk
Striate: (of cap) 75, with minute radiating lines or furrows; (of stem) with minute lengthwise lines or furrows
Strigose: 65
Subdistant: 119, a relative term applied to gill spacing
Subperonate: 204 & 205
Sulcate: 76
Superior (of ring) located above the middle of the stem; in unopened button, attached to stem above margin of cap
Tapering (of shape): becoming narrower in the direction stated, (of gills, 116; of stem, 172)
Tawny (color): dull yellowish-brown; the color of a lion
Terete: 145
Terrestrial: growing on the ground
Tomentose: (of surface) 61 & 81, with woolly, tangled, matted hairs
Troops: growing in large numbers, closely spaced but not tufted
Truncate: with end seeming chopped off
Tuberculate (of surface): with projections like warts or knobs
Tuberculate-striate (of surface): with tubercles in lines (see Striate)
Tubular (of stem): round in cross section, with hollow center
Umbilicate: 16
Umbonate: 12
Uncinate: 110
Undulating: 82
Unequal: 138
Uneven (of surface): irregular, 42
Universal Veil: the tissue of variable texture that encloses the whole fungus in its button stages, usually breaking up in various ways during its development
Uplifted: 27
Veined, Venose: 135
Ventricose: swollen or enlarged in the middle (of gills, 113; of stem, 151)
Vinaceous: colored like red wine
Virgate: 50, streaked, usually by differently colored fibrils
Viscid (of surface): sticky
Warty (of cap, spores, etc.): 47, covered by small wart-like projections
Waxy (of gills): looking and feeling like soft candle wax
Zonate: 70