

- 12 (8) Stipe finely punctate-scaly (especially at apex); tubes reddish to reddish-brown; flesh, tubes, and stipe readily staining blue if cut or bruised; pileus biscuit brown; occurring along streams under mixed conifers at 7500 to 9000 feet; stipe with a velvety base often.....**12** Boletus subvelutipes (not recommended)
12. Stipe not finely punctuate-scaly, usually smooth or striate-streaked or ridged longitudinally; tubes and flesh turning bluish or not; pileus variously colored.**13**
13. Pileus 1-4 cm in diameter, brown to yellowish brown, slightly viscid to the touch; tubes reddish rusty brown; flesh yellowish within, especially the stipe-base; taste often peppery; occurring at 10,000 feet or more in moist areas..... **5** Boletus piperatus (inedible)
13. Pileus larger than above, color various, but surface not viscid; tubes yellowish; flesh pale yellowish to creamy; taste mild **14**
6. Pileus brownish, not at all fibrillose, scaly, or tomentose, color brown to yellowish brown, surface often slightly viscid; tubes dull brownish or with a dark reddish cast; stipe brown, flesh of interior yellowish, especially toward base, mycelium yellow; taste often peppery..... **5** Boletus piperatus (inedible)
6. Pileus whitish to pale creamy, at first, then yellowish brown to orangy cinnamon, or with dark brownish gray tomentum or squamules covering a pale yellow to orangy yellow ground color; tubes whitish to pale yellow at first (not reddish brown); stipe whitish or pale yellow, flesh pale yellow within..... **?**
7. Pileus white to pale creamy, later yellowish brown to dark egg-yellow or orange-cinnamon, surface not at all tomentose or squamulose; tubes whitish at first; interior whitish at first, not becoming blue if cut or bruised.....**6**. Suillus granulatus (edible and common)

NOTES:

1. Stipe whitish with blackish to brownish dots or ridges on the surface; pileus usually orange, or dark brown; tubes whitish; generally under aspen or birch (but see *L. barrowsii*)**2** (Leccinum)
1. Stipe not both whitish and the surface covered with black to brownish dots or ridges; pileus variously colored; habitat various**4**
2. Pileus pale rose-pink, drying dingy pallid; growing under mixed conifers, rare (Santa Clara Canyon)**1** Leccinum barrowsii (?)
2. Pileus not colored as in above; growing under aspen usually**3**
3. Pileus ferruginous-red to orangy brown.**2** Leccinum aurantiacum (edible)
3. Pileus umber brown to snuff brown, lacking an orange cast.**3** Leccinum insigne (edible)

7. Pileus with dark brownish gray squamules or tomentum over a pale yellowish ground color; tubes dingy yellow at first; flesh of cap and stipe as well as tubes slowly greenish blue if injured
.....**7** Suillus tomentosus (edible)

8. (4) Stipe lacking a fine to coarse reticulum, surface usually either finely punctuate-scaly, smooth, or striate-streaked or ridged.....
.....**12** (subgenus Xerocomus)

8. Stipe with a fine to coarse reticulum over at least the upper surface (check with hand lens and examine several specimens)
.....**9** (Boletus)

9. Tubes and stipe dark reddish to reddish brown; both flesh and tubes staining blue if bruised or broken (uncommon)**8** Boletus eastwoodiae (poisonous!)

9. Tubes and stipe white, creamy yellow, or pale olive; flesh and tubes not staining blue if cut or bruised**10**

4 (1). Pileus both viscid to the touch and the stipe with glandular dots, especially on upper portion (pileal color usually pallid, whitish, yellowish, or buffy brown – in age sometimes umber brown) .
..... **5** (Suillus)

4. Pileus dry and matte appearing; stipe lacking glandular dots (pileal color various, often dark brown to reddish brown; if whitish, then not at all viscid**8**

5. Pileus yellowish, often streaked with reddish to reddish brown squamules on outer margin of cap, margin at first usually cottony floccose; stipe very slender, 7-15 mm in diameter, occasionally annulate; moist areas under limber pine**4** Suillus sibiricus (?)

5. Pileus differently colored than above, lacking reddish squamules; stipe generally wider than above**6** (but see B. piperatus!)

10. Stipe flushed with pink or vinaceous in some area, reticulum very fine and often only partially developed (occasionally absent!); taste often slowly bitter; along streams under mixed conifers**9** Boletus calopus (inedible)

10. Stipe not pinkish to vinaceous tinted, reticulum well developed; taste pleasant and mild; under spruce-fir or mixed conifers**11**

11. Pileus at first whitish to very pale buffy, later biscuit brown; growing under mixed conifers at 7500 to 9000 feetBoletus barrowsii (excellent edible)

11. Pileus at first mahogany-red to maroon-red, though often with pallid areas where not exposed to light; growing under spruce at 9000 to 11500 feet.....**11** Boletus edulis (excellent edible)

14. Pileal surface soon breaking up into areolate patches, color a dark umber brown with reddish color in cracks and along margin; flesh and tubes slowly staining bluish
.....**13** Boletus chrysenteron (not recommended)

14. Pileal surface not becoming both areolate and with reddish color appearing in cracks and along margin; flesh changing to blue or not.....

15. Stipe with vinaceous red areas over much of surface; tubes and flesh readily staining blue when cut or bruised; high mountain species in spruce-fir at 9000 feet or more.....
.....**14** Boletus porosporus ? (unknown)

15. Stipe lacking red to vinaceous red areas on surface, usually dull brownish or yellowish brown colored; tubes and flesh not readily staining blue if cut or bruised; occurring in mixed conifer forests below 9000 feet usually.....**15** Boletus subtomentosus (edible)