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Gymnopilus Notebook 7

L. R. Hesler

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AGARICUS SPECTABILIS Fr.

Elench. Fung. 1: 28. 1828

(Translation from Fries)

Pileus convex, dry, obtuse, solitary, gregarious, indeed subcespitose, large, smooth, subglabrous, fulvous, margin inflexed. Context firm, sulfureous.

Lamellae adnate-decurrent, narrow.

Stipe not squamulose, but furfuraceous, base sub-enlarged, solid, glabrous. Anhulus membranaceous.

Other Characters in Fries! Epicr., p. 166.

cuticle (becoming) lacinate-squamulose;
Pileus ~~squamose~~; stipe ventricose, subradicate; lamellae yellowish then ferruginous.

*S*argent - 27 GYMNOPIIUS SPECTABILIS (Fr.) Singer

Jackson State Forest, near Mendocino, Calif., Nov. 4, 1961, leg. - det.
D. Sargent.

Spores 7-9 x 4.5-5.5(6) μ , dextrinoid.

Deegan - 31

GYMNOPIIUS SPECTABILIS

New York (state) - date (?)

Spores 7.5-9.5 x 5-5.5 μ .

Harding-69

GYMNOPIIUS SPECTABILIS

Washtenaw County, Michigan, leg. & det. Harding as G.
junonius, August 14, 1949.

Spores 7.5-9.5 x 5-5.5 μ , ellipsoid to subovoid in face view, inequilateral in profile, no germ pore, verrucose, ferruginous in KOH, dextrinoid at once. Other characters as usual.

Annulus membranous, ample, persistent, apical.

Deegan - 83

GYMNOPIIUS SPECTABILIS

On root of a stump, Tonawanda, N. Y., (date?)

Spores 8-9.5(10) x 5-5.5 μ .

Sm-108A

GYMNOPIIUS SPECTABILIS

Berry Creek Hills, Michigan ?, July 28, 1961 (labelled
as G. junonius = spectabilis).

Spores 7-8.5 x 4.5-5 μ , about 2/3 of them dextrinoid
at once. Yellow pigment, soluble in KOH, present in gill
trama. Annulus membranous, more or less persistent.

Quinby-124B

GYMNOPIIUS SPECTABILIS

(A. H. Smith - collection. No coll. data)

Spores 8-10 x 5.5-7 μ , ellipsoid, slightly inequilateral, coarsely verrucose, ferruginous in KOH, dextrinoid. Other characters rather typical.

Motta - 188

GYMNOPILUS SPECTABILIS (Fr.) Sing.

Cespitose, lignicolous, Oakland, Calif., Nov. 4, 1962.

Spores 7.5-9 x 4.5-5.5 μ .

Barrows-327

GYMNOPIIUS SPECTABILIS

On dead conifer (spruce or fir), New Mexico, August 1956

Notes by Barrows

Cap bright ochre-yellow, 9 cm broad, ~~X~~appressed
fibrillose~~X~~. Context thick, pale yellow; taste bitter.
Stipe up to 12 cm long, attenuated upward. ~~X~~Veil forming
a more or less membranous, persistent annulus~~X~~.

Notes by Hesler

Spores 7-⁹~~10~~ x 4.5-5.5 μ , ellipsoid, inequilateral,
ferruginous, dextrinoid, (slowly, after 1 hour), verruculose.
Basidia 23-27 x 6-7 μ , 4-spored. Pleurocystidia 23-28 x
6-7 μ , ventricose; cheilocystidia 25-28 x 5-6 μ , subflask-
shaped to ventricose, subcapitate to non-capitate. Gill
trama of subparallel hyphae, 4-8 μ broad; subhymenium not
distinctive. Pileus trama interwoven. Cuticle of repent
hyphae, with repent or semi-erect hyphae which are brown,
incrusted. Caulocystidia cylindrical to more or less clavate.

Custwick - 396

GYMNOPIIUS SPECTABILIS

On stump of Quercus, Hassock, Sussex, England, Oct. 20, 1950.

Spores 7-8.5 x 4.5-5.5 μ .

Sipe - 397

GYMNOPIIUS SPECTABILIS

Around a stump, Eugene, Ore., Nov. 1, 1943.

Spores 7.5-9.5 x 5-5.5 μ .

Barrows-471

GYMNOPIIUS SPECTABILIS

On old pine stump, near Santa Fe Road, New Mexico, August 1957

Notes by Barrows

Cap to 15 cm and more broad, dull rusty orange, slightly scaly. Context 2.5 cm thick on the disc; taste bitter-acrid. Lamellae broad, unequal, rusty orange. Stipe long, 2.5 cm or more thick, crooked, fibrillose, pale-yellow.

Notes by Hesler

Spores 7-9(9.5) x 4-5.5 μ , dextrinoid. Other characters as in Smith-72862.

Miller-555

GYMNOPIIUS SPECTABILIS

On old rotten sugar maple log, Fox Forest, N. H., Sept. 8, 1959

Notes by Miller

Pileus 3.5-8 cm broad, mustard yellow in center, yellowish on the margin, with a slight glaucous, white pubescence.

Gills adnexed, tawny, close, broad.

Stipe 3.5-6 cm long, 6-10 mm thick, dingy yellow-brown, with brown fibrils, base slightly enlarged clavate. Annulus cocoa-brown from spores, *membranous, persistent.*

Notes by Hesler

Spores ~~6-8 x 5-5.5 μ~~ ^{7-9 x 4.5-5.5 μ} , broadly ellipsoid to subovoid, inequilateral, verrucose, ferruginous in KOH, ^{promptly} dextrinoid, no germ pore. Basidia 20-23 x 5-6 μ , 4-spored. Pleurocystidia 24-30 x 5-6 μ , ventricose; cheilocystidia of two general types: (1) 18-27 x 3-7 μ , flask-shaped to ventricose, capitate or non-capitate; (2) 22-26 x 4-7 μ , clavate, apex more or less subcapitate. Gill trama of slightly interwoven hyphae, 5-15 μ broad; subhymenium not distinctive. Pileus trama radial. Cuticle not distinctly differentiated, bearing numerous fibrils often more or less in bundles (subscaly). Clamp connections present. Caulocystidia 30-46 x 5-8 μ , ventricose to irregularly cylindrical,

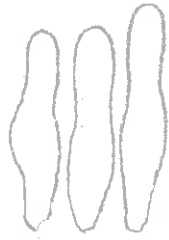
G. spectabilis - 2
(Miller-555)

often crooked or constricted, sometimes capitate, gregarious
or in small tufts.

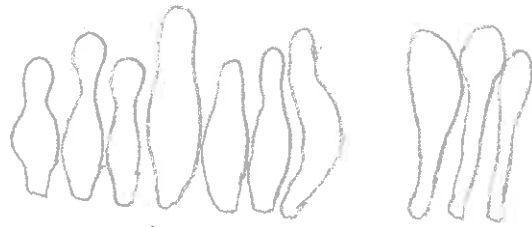
Near palmicola which has larger spores, larger basidia,
different pleurocystidia and cheilocystidia.

Gymnopilus spectabilis

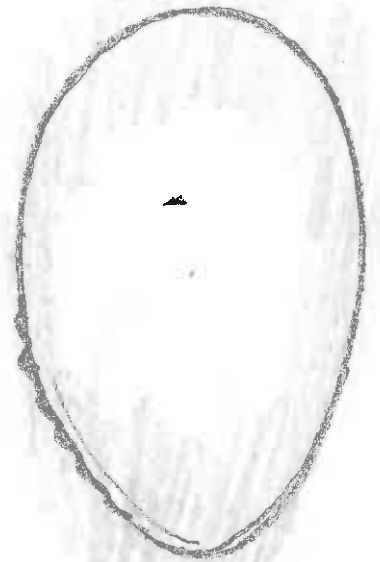
Miller - 555



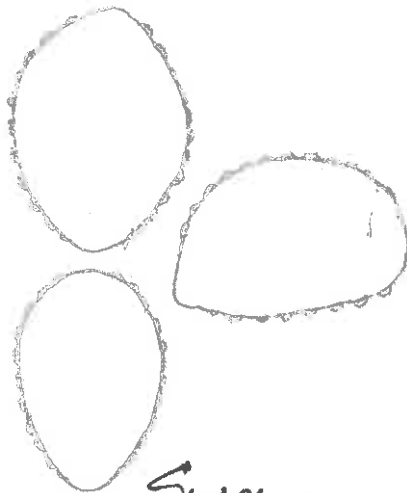
Pl - x 1000



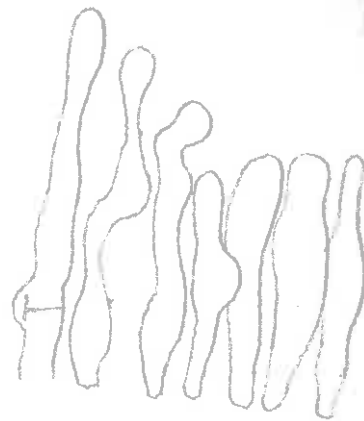
Ch - x 1000



x 8000



Spora -
x 4000



Caule - x 1000

Lohwag - 636

GYMNOPIIUS SPECTABILIS

On Castanea sativa, Italy, leg. Kurt, det. --? Sept. 19, 1935.

Spores 7.5-9(9.5) x 5-5.5 μ , dextrinoid.

Gruber - 657

GYMNOPIIUS SPECTABILIS

STEREO-PHOTO

On conifer stump, Bear Springs, Ore., Sept. 26, 1945.

Spores 7.5-9 x 5-5.5 μ .

SM - 738

GYMNOFILUS SPECTABILIS

On deciduous wood, Upper Brookside, Colchester Co., Nova Scotia,
Sept. (?) 12, 1931.

Spores 7.5-9 x 5-5.5 μ .

SM - 760

GYMNOPIIUS SPECTABILIS

On old logs, Warrensburg, N. Y., leg. J. Lowe, det. Smith, Sept. 10, 1934.

Spores 7-8.5 x 5-5.5 μ .

Herter - 818A

GYMNOFILUS SPECTABILIS

On wood of Eucalyptus, Uruguay, leg. and det. Guil. Herter, July, 1927.

Spores 7-9 x 5-5.5 μ .

Barrows-911

GYMNOPIIUS SPECTABILIS

On rotten conifer log, Sangre de Cristos, New Mexico,
August 1958.

Notes by Barrows

Cap up to 17.5 cm broad, yellow to orange, margin paler and naked. Context very thick on disc, thin on margin; taste very bitter. Lamellae adnate, yellow, unequal. Stipe about 12-25 mm thick (apex), base about 25-50 mm. Veil (ring) slight but persistent.

Notes by Hesler

Spores 7.5-9.5 x 5-6(6.5) μ , dextrinoid. Other characters as usual.

Rea H-1308

GYMNOPIIUS SPECTABILIS

Under Eucalyptus, Santa Barbara, Calif., Jan. 16, 1944.

Thiers - 1329 GYMNOPIIUS SPECTABILIS (Fr.) Singer

Solitary on log, Fahquamenon, Mich., Aug. 13, 1951.

Spores 7-9 x 4.5-5.5 μ , dextrinoid.

Rea H-1397

GYMNOPIIUS SPECTABILIS

Cespitose, at base of Eucalyptus stump, Mission Canyon, near Hoffman,
Calif., leg.-det. P. M. Rea, Dec. 16, 1944.

Spores 7.5-9.5 x 5-5.5 μ .

Burke - 2079

GYMNOPIIUS SPECTABILIS

Under oak, probably on wood, Montgomery Co., Ala., leg. R. P. Burke,
det. Kauffman, Dec. 21, 1921.

Spores 7.5-9 x 4.5-5.5 μ .

SM - 3097

GYMNOPIIUS SPECTABILIS

At base of dead fir, Joyce, Wash., Oct. 11, 1935.

Spores 7.5-9.5 x 5-5.5 μ .

SM - 8229

GYMNOPIIUS SPECTABILIS

At base of conifer stub, Crescent City, Calif., Oct. 30, 1937.

Spores 7-9 x 5-5.5 μ .

SM - 8584

GYMNOPIIUS SPECTABILIS

On spruce stub, Fort Dick, Calif., Nov. 10, 1937.

Spores 7-9 x 5-5.5 μ .

Thiers - 8769 GYMNOFILUS SPECTABILIS (Fr.) Singer

Gregarious on log, mixed forest, Jackson State Forest, Mendocino Co., Calif., leg. - det. Thiers.

Spores 7.5 - 9 x 4.5 - 6 μ , dextrinoid.

Thiers - 9014 GYMNOFILUS SPECTABILIS (Fr.) Singer

Gregarious on log, conifer forest, near Mendocino, Calif., Jackson State Forest.

Spores 7-8.5(9) x 4.5-5(5.5) μ , dextrinoid.

Thiers - 9371 GYMNOPIIUS SPECTABILIS (Fr.) Sing.

Cespitose on buried logs, Jackson State Forest, near Mendocino, Calif.,
Nov. 3, 1962.

Spores 7.5 - 10 x 5-5.5(6) μ , dextrinoid. Cheilocystidia non-
capitate to subcapitate.

SM - 10605

GYMNOPIIUS SPECTABILIS

On hardwood log, Flat Creek, N. C., Aug. 27, 1938.

Spores 7-9.5 x 5-5.5 μ .

Thiers - 14461 GYMNOFILUS SPECTABILIS (Fr.) Singer

Cespitose on Monterey cypress tree, Patricks Point State Park, Calif.,
Nov. 21, 1965.

Spores 7-9 x 4.5-5.5 μ , dextrinoid. Veil pale yellow,
submembranous, heavy.

Thiers - 14583 GYMNOPIIUS SPECTABILIS (Fr.) Singer

Solitary on living cypress tree, Patricks Point State Park, Humboldt Co., Calif., Dec. 9, 1965.

Spores $7.5 - 9 \times 4.5-5.5 \mu$, dextrinoid. Veil strongly fibrillose-membranous.

Thiers - 17617 GYMNOPIIUS SPECTABILIS (probably)

Cespitose on conifer stump, Patricks Point State Park, Humboldt Co.,
Calif., Sept. 24, 1966.

"Button" stage; spores few, 7-9 x 4.5-5.5 μ .

Thiers - 17900 GYMNOPIIUS SPECTABILIS (Fr.) Sing.

Solitary at base of living Eucalyptus tree, campus, San Francisco State College, Calif., Dec. 3, 1966.

Spores 7.5-9(10) x 4.5-5.5 μ .

Thiers - 18376

GYMNOPIIUS SPECTABILIS

On log, San Mateo Co., Calif., Jan. 6, 1967 (det. as G. junonius by Thiers).

Spores 7.5-9.5 x 5-5.5 μ , dextrinoid.

Cooke - 21415

GYMNOPIIUS SPECTABILIS

At base of conifer stump, Idaho, 1949.

Spores 7.5-9(10) x 5-5.5 μ .

SM = 27386

GYMNOPIIUS SPECTABILIS

Mt. Hood National Forest, Ore., Oct. 6, 1947.

Spores 7.5-9 x 5-5.5 μ .

SM - 28524

GYMNOPIIUS SPECTABILIS

On fir stump, Sandy, Ore., Nov. 6, 1947.

Spores 7.5-9.5 x 5-5.5 μ .

SM - 28548

GYMNOPIIUS SPECTABILIS

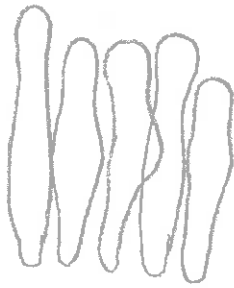
On conifer log, Sandy, Ore., Oct. 5, 1947.

Spores 7.5-9 x 5-5.5 μ .

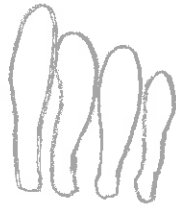
Gymnopilus ~~mapasan~~ spectabilis

Teru- 2858!

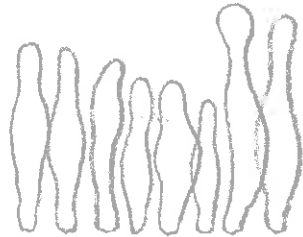
(Barrow-1340)



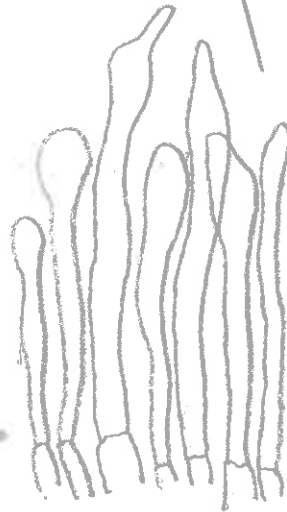
Pl (colorless)
x 1000



Pl (br,
basidioides)
x 1000



Ch - x 1000



Caulo - x 1000

Shafer-3581

GYMNOPIIUS SPECTABILIS

On stump, in mixed woods, Franklin County, Mass., leg.
Bigelow, September 6, 1961.

Veil submembranous in part, at times fibrillose and
fugacious. Otherwise, as in Sm-47366.

Sm-3646

GYMNOPIIUS SPECTABILIS

Trinidad, Humboldt County, Calif., November 29, 1935, leg. &
det. A. H. Smith (labelled G. junonius).

Spores 8-10 x 5-5.5(6) μ , dextrinoid. Fragments of
the more or less membranous annulus found.

Thiers-4048

GYMNOPIIUS SPECTABILIS

On log, in mixed woods, Tahquamenon Falls State Park,
Michigan, August 14, 1956.

Spores 7.5-9.5 x 5-6 μ , ferruginous, dextrinoid at
once. Veil apparently fibrillose-submembranous, more
or less persistent. Pileus densely brown, appressed-
fibrillose.

(Same as Sm-47366).

10737

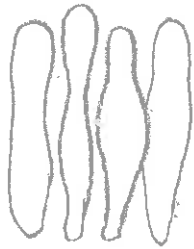
GYMNOPIIUS SPECTABILIS

On log, GSMNP, Swain Co., N.C., Aug. 1, 1937

Spores 6-⁹~~8.5~~ x 4.5-5.5 μ , ellipsoid to subvoid in face view, slightly inequilateral in profile, verrucose, dextrinoid (a few red at once, others after 30 minutes in Melzer's reagent). Basidia 24-27 x 6-7 μ , 2-4-spored. Pleurocystidia 27-30 x 4-6 μ , colorless, ventricose, scattered (no basidioles found); cheilocystidia 20-30 x 6-8 μ , ventricose, not abundant, Gill trama of subparallel hyphae, 5-9 μ broad; subhymenium not distinctive. Pileus trama interwoven. Cuticle of repent hyphae, bearing tufts or bundles of brownish hyphae.

Gymnosporium spectabile

Teru - 10737



Pl - x 1000



Ch - x 1000

Potter-13366

GYMNOPIIUS SUBDRYOPHILUS

On hardwood log, Ithaca, Michigan, September 30, 1961.

Notes by Potter

Pileus about "yellow ochre," with rusty stains.
Context white, thick; odor similar (?), taste bitter
(odor may be aromatic or pungent).

Lamellae sinuate-adnate, concolorous.

Stipe concolor, with innate white-fibrillose striae
apex pruinose, becoming hollow. Veil absent.

Notes by Hesler

(Same as Potter-12396).

Tenn-17721

GYMNOPIILUS SPECTABILIS (Fr.) Smith

On stump, Iron Mt., Elizabethton, August 28, 1946

Pileus cespitose, (3)5-10 cm broad, convex, then expanded-convex, fibrillose, hygrophanous, "antimony yellow," "deep chrome" to "xanthine orange," margin even. Context yellow, thick on disc, thin on margin; odor pleasant, taste bitter.

Lamellae narrowly emarginate, "ochraceous tawny" to "raw sienna," rather broad, close, edges fimbriate, faces rugulose.

Stipe 3-8 cm x 5-10 mm, curved, dry, fibrillose, concolor, stuffed. Annulus superior, persistent, stained brown (by spores), appressed.

Spores (6)7-8.5(9) x 4.5-5.5 μ , ellipsoid to ovoid in face view, slightly inequilateral in profile, verruculose, germ pore none, dextrinoid at once. Basidia 22-28 x 6-7 μ , 2-4-spored. Pleurocystidia (a) colorless 21-28 x 6-7 μ , ventricose, scattered, inconspicuous; (b) brown, 20-30 x 5-6(8) μ , clavate, buried, scattered; cheilocystidia 24-30 x 5-6 μ , ventricose, not capitate to subcapitate. Gill trama of subparallel hyphae 3-6 (10) μ broad. Pileus trama interwoven. Cuticle of repent hyphae, bearing clusters of more or less incrustated brownish hyphae. Clamp connections present. Pileus and gill trama yellowish in KOH; dark yellowish brown in Melzer's reagent. Caulocystidia none[?]. A yellowish pigment dissolves out in KOH.

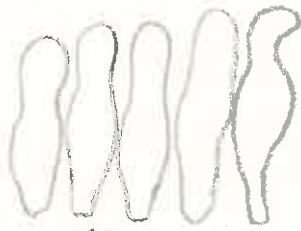
Overholts (1927) states that the gills are fairly bright but not quite so bright as in aeruginosus or pulchrifolius. He also thinks lutens Pk. is the same as spectabilis; but is usually less robust than Fries' spectabilis in Europe. Likewise ventricosus the same as spectabilis. He further concludes that spectabilis in Europe and America is about equally variable (medium to large plants; cylindric or enlarged stems; nearly glabrous to fibrillose-squamulose pileus).

Gymnospilus spectabilis (Fr.) Smith

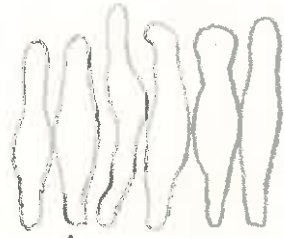
Temu-19721



(a)

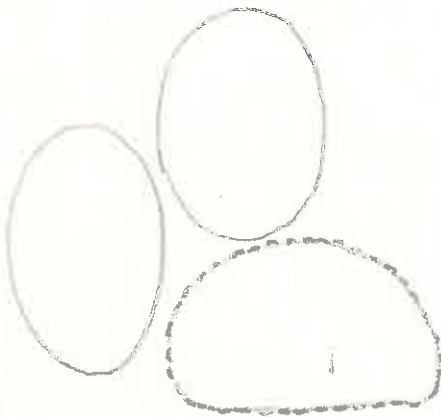


(b)



Ch - x 1000

Pl. - (a) brown; (b) colorless - x 1000



Spores - x 4000

Tenn-19725

GYMNOPIIUS SPECTABILIS (Fr.) Smith

On trunk of living spruce, Indian Gap, August 27, 1950

Pileus 5-8 cm broad, glabrous, "ochraceous orange" to "sudan brown" when moist, brighter when dry, glabrous, margin even. Context thin, except on disc, concolorous with pileus, red-brown in KOH; odor slight, taste bitter.

Lamellae emarginate-decurrent, "ochraceous buff" to yellowish-tawny, spotted red-brown, broad, close (almost crowded), edges rough-serrulate.

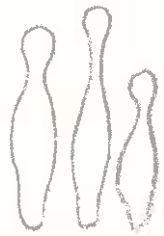
Stipe 5-9.6 cm x 7-14 mm, clavate-enlarged at base (3.5 cm diameter), apex yellowish, elsewhere watery brown, spongy. Veil membranous, collapsed.

Spores 8-10 x 5.5-7 μ , ellipsoidal, not truncate, verruculose, no germ-pore. Pleurocystidia as in 17721; cheilocystidia 15-30 x 5-7 μ , bottle-shaped, capitate.

In KOH, the trama of pileus exudes a yellowish pigment.

Gymnopilus spectabilis (Fr.) Sm.

Tem. - 19725



ch - x 1000

Tenn-20181

GYMNOPIIUS SPECTABILIS (Fr.) Sm.

On trunk of living spruce, Clingman's Dome, September 15, 1951

Spores 7-9.5 x 5.5-7.5 μ . Otherwise as in Tenn-19725
(cheilocystidia flask-shaped, capitate).

24033

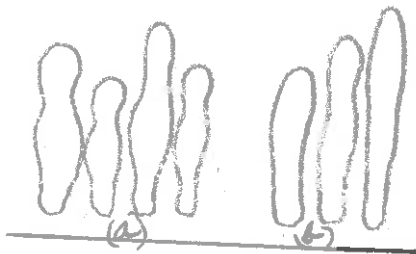
GYMNOPIIUS SPECTABILIS (Fr.) Sing.

Base of old stump (Betula or Alnus), Bedfordshire, England,
coll. D. A. Reid, Nov. 10, 1959

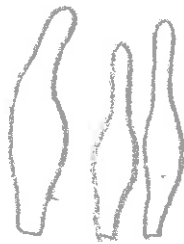
Spores 7.5-9(9.5) x 4.5-5.5 μ , ellipsoid, inequilateral, verrucose, ferruginous in KOH, dextrinoid after 30 minutes in Melzer's reagent. Basidia 26-30 x 6-7 μ , 4-spored. Pleurocystidia (a) colorless, 18-25 x 4-6 μ , ventricose, scattered; (b) brown, as basidioles, 20-24 x 4-5 μ . Cheilocystidia 25-30 x 5-8 μ , ventricose-flask-shaped, not capitate. Gill trama of subparallel hyphae, 6-9 μ broad; subhymenium not distinctive. Pileus trama of interwoven hyphae. Cuticle of repent hyphae, with scattered bundles of brown hyphae (fibrillose-scales). Caulocystidia not found.

Gymnopilus spectabilis

Tem-24033 (Reid, Kew)



Pl. (a) colorless; (b) brown
(basidia) - X 1000



Ch - X 1000

TENN-28581 (Barrows-1340) GYMNOPIIUS SP ECTABILIS

On rotting ponderosa pine, Glorietta Mt., coll. Barrows, New Mexico, August, 1962.

Notes by Barrows

Pileus bright golden ochre, up to 20 cm broad. Context thick, white to yellow; odor like almonds, taste very bitter.

Lamellae yellow to bright rust.

Stipe bright lemon-yellow. Ring thin, almost membranous or in some basidiocarps persistent and membranous, yellowish.

Notes by Hesler

Spores 7.5-9.5(10.5) x (4.5)5-5.5(7) μ , ellipsoid to ovoid in face view, inequilateral in profile, verrucose, germ pore none, plage smooth; basidia 27-34 x 6-7.5 μ , 2-4-spored. Pleurocystidia of two types: (a) colorless, ventricose or subventricose, 27-34 x 5-7 μ , inconspicuous, often rare, (b) brown, basidioles, 16-24 x 3-6 μ , irregularly present. Cheilocystidia 18-24(33) x 4-6 μ , subventricose or flask-shaped, slightly or not at all capitate. Gill trama of subparallel hyphae, 4-7 μ broad; subhymenium not distinctive. Pileus trama interwoven. Cuticle of repent hyphae; but with brown fascicles of hyphae, the terminal elements often cystidioid. Clamp connections present. Caulocystidia cylindrical, cylindrical-capitate or clavate, 35-60 x 3-7 μ , as terminal elements on a hyphal-mat. Lactifers present in trama of pileus and gills (red in KOH).

TENN-28581 (Barrows-1340) GYMNOPIIUS SPECTABILIS

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view, inequilateral in profile, verrucose, germ pore none, plage smooth;
basidia 27-34 x 6-7.5 μ , 2-4-spored. Pleurocystidia of two types:
(a) colorless, ventricose or subventricose, 27-34 x 5-7 μ , inconspicuous,
often rare, (b) brown, basidioles, 16-24 x 3-6 μ , irregularly present.
Cheilocystidia 18-24(33) x 4-6 μ , subventricose or flask-shaped, slightly
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subhymenium not distinctive. Pileus trama interwoven. Cuticle of
repet hyphae; but with brown fascicles of hyphae, the terminal elements
often cystidioid. Clamp connections present. Caulocystidia cylindric,
cylindric-capitate or clavate, 35-60 x 3-7 μ , as terminal elements on a
hyphal-mat. Lactifers present in trama of pileus and gills (red in KOH).

Sm-30691

GYMNOPIIUS SPECTABILIS

MRNP, Washington, August 27, 1948

Spores 8-9.5 x 5-7 μ . (Same as Sm-47366).

Pileus fibrillose, not scaly. Veil fibrillose-submembranous, more or less persistent.

Sm-41706

GYMNOPIIUS SPECTABILIS

On wood, Tahquamenon, Michigan, July 27, 1953.

(Same as Sm-47366).

Cap brown, watersoaked, appressed-fibrillose. Veil forming a more or less membranous, persistent annulus.

Sm-41757

GYMNOPIIUS SPECTABILIS

On hardwood, Tahquamenon, August 3, 1953

(Same as Sm-47366). Pileus fibrillose; veil forming a more or less fibrillose-submembranous, persistent annulus.

Sm-46480

GYMNOPIIUS SPECTABILIS

Shingle Creek, 7-Deviis, Idaho, August 23, 1954

Not fully mature, but the veil, spores, cystidia, and cuticle suggest spectabilis. Veil yellow, heavy, membranous. Pileus fibrillose-appressed, not scaly.

Sm-47366

GYMNOPIIUS SPECTABILIS

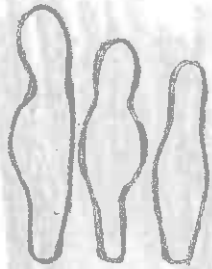
On conifer tree, Carbon River Road, MRNP, Wash., Sept. 11, 1954

Spores (7.5)8-9.5(10) x (5.5)6-7 μ , ellipsoid in face view, slightly inequilateral in profile, verruculose, no germ pore, ferruginous in KOH, dextrinoid at once in Melzer's reagent. Basidia 27-34 x 7-8 μ , 2-4-spored. Pleurocystidia 26-33 x 7-8 μ , ventricose; cheilocystidia 28-43 x 4-8 μ , flask-shaped or ventricose, rarely filamentous, capitate or subcapitate. Gill trama of subparallel hyphae, 3-6 μ broad; subhymenium not distinctive. Pileus trama more or less interwoven, becoming vesiculose. Cuticle a zone of dark-brown, repent incrustated hyphae, at times with bundles of brown, more or less erect hyphae (scales); Clamp connections present. Caulocystidia 36-107 x 6-10 μ , somewhat variable: ventricose, flask-shaped; long-filamentous, rarely forked, often capitate, in tufts, or sometimes forming a turf. Lactifers in stipe and pileus flesh. Pigment in gill trama, soluble in KOH, yellowish and tinged brown.

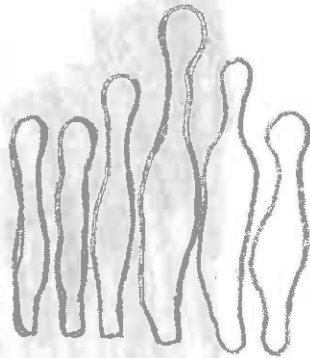
Pileus appressed-fibullose. Annulus membranous, persistent.

Gymnopilus spectabilis

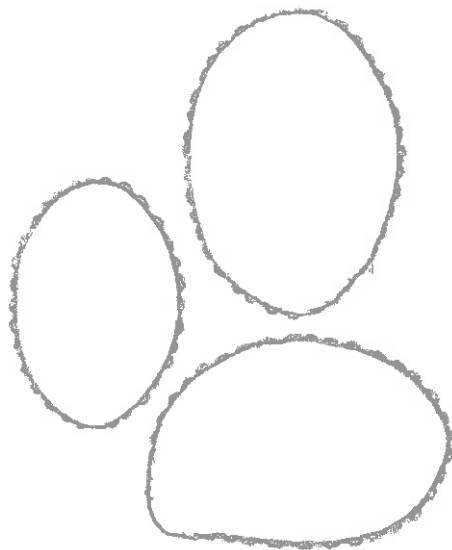
Sm - 47366



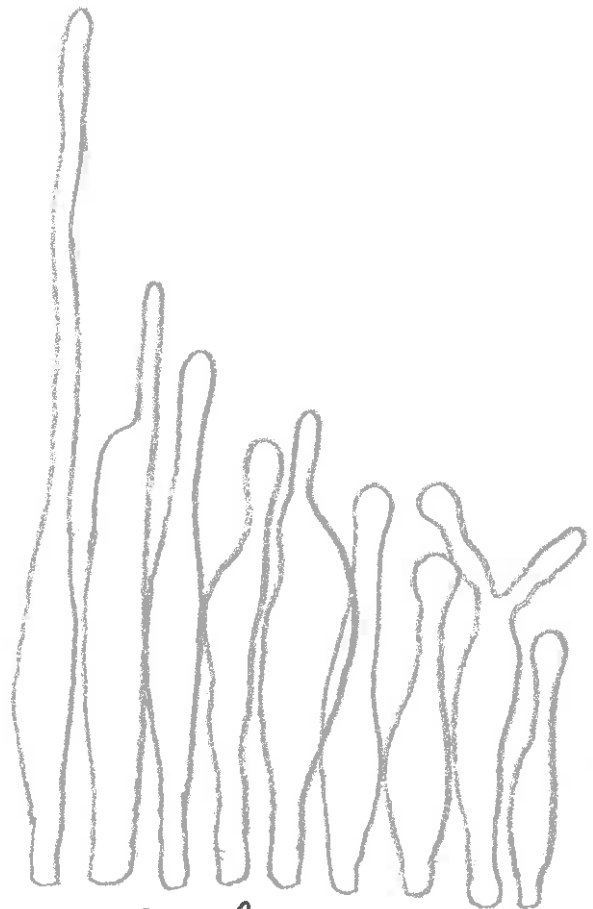
Gl - x 1000



Ch - x 1000



Spores - x 4000



Caulo - x 1000

Sm-50251

GYMNOPIIUS SPECTABILIS

On conifer wood, Tahquamenon, Michigan, August 22, 1955.

These are all small, very young basidiocarps (in the button stage). The veil is conspicuous, fibrillose-submembranous, only a few of the spores (in any given field) are dextrinoid, and generally about 1 μ shorter than in mature basidiocarps. Caps are thinly fibrillose-appressed-squamulose. (Same as Sm-47366).

Solheim-51379

GYMNOPIIUS SPECTABILIS

On rotting conifer wood, Grand Teton Nat'l. Park, Wyo.,
6850 ft., July 21, 1957.

(There are no notes; thus my identification is based on
a few assumptions).

Spores 7-10 x 4.5-5.5 μ , ellipsoid, inequilateral,
verruculose, ferruginous, only an occasional spore at
first dextrinoid, all dark or purple-red (dextrinoid)
after 20 minutes, no germ pore. Basidia 26-30 x 5-6 μ ,
4-spored. Pleurocystidia 22-26 x 5-6 μ , ventricose;
cheilocystidia 20-37 x 5-7 μ , flask-shaped, capitate or
subcapitate. Gill trama of subparallel hyphae, 4-11 μ
broad; subhymenium not distinctive. Pileus trama inter-
woven. Cuticle a brown zone, repent. Pileocystidia none;
caulocystidia in tufts, filamentous-capitate, 30-70 x
2-5 μ . Clamp connections present.

Veil remnants few. It is assumed that the veil was
sparsely developed, and the few fibrils present were
fugacious ! The non-scaly cap, and the spores indicate
spectabilis.

Sm-54696

GYMNOPIIUS SPECTABILIS

On hemlock, Kaniksu Nat'l. Forest, Idaho, October 14, 1956.

Spores 7-10 x 5-6.5 μ , ferruginous in KOH, dextrinoid at once. Cap appressed, fibrillose-scaly. Annulus membranous, subpersistent. (Same as Sm-47366).

Sm-56158

GYMNOPIIUS SPECTABILIS

On hemlock, Humboldt State Park, Calif., November 30, 1956

Same as Sm-47366, except the spore-wall is more coarsely verrucose. Veil leaving a fibrillose to sub-membranous, more or less persistent annulus.

Sm-56224

GYMNOPIIUS SPECTABILIS

On fir stub, Trinidad, Calif., Dec. 3, 1956

Notes by Smith

Pileus 3-6 cm broad, pale-orange-buff, fibrillose (under lens). Taste bitter.

Lamellae pinkish buff, dingy yellow when first mature.

Stipe 4-5 cm long, 5-8 mm thick, pallid yellowish. Veil present, white, cortinate ^{or submembranous,} leaving a brown (from spores) annular zone.

Spores orange-ferruginous.

Notes by Hesler

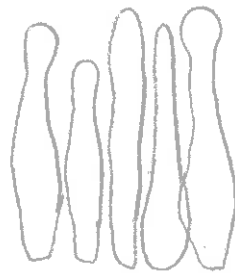
Spores 7-9 x 4.5-5.5 μ , ellipsoid, slightly inequilateral, verruculose, ferruginous in KOH, dextrinoid. Basidia 24-28 x 5-7 μ , (2)4-spored. Pleurocystidia 25-28 x 6-7 μ , ventricose; basidioles 18-25 x 4-6 μ , clavate, ventricose, brown; cheilocystidia 26-34 x 4-8 μ , flask-shaped or ventricose, more rarely filamentous, subcapitate or non-capitate. Gill trama of subparallel hyphae, 5-15 μ broad; subhymenium not distinctive. Pileus trama interwoven. Cuticle of loose, repent, pale-brown hyphae; pileocystidia none. Clamp connections present. Caulocystidia 33-54 x 2.5-5 μ , as terminal elements on surface hyphae, clavate or cylindrical, more or less capitate, colorless.

Gymnopilus spectabilis

Sm - 56224



Sp - x 1000



ch - x 1000

Sm-58269

GYMNOPIIUS SPECTABILIS

On birch tree, Millers Bog, Burt Lake, Mich., Sept. 19, 1957.

Notes by Smith

Pileus glabrous, "buff yellow," shaded more rusty from spores, surface moist, neither viscid nor hygrophanous. Context yellow to orange-yellow; odor distinctly of shinola shoe polish, taste bitterish.

Lamellae adnexed, "tawny," close, edges eroded.

Stipe silky, with a fibrillose ring near apex.

Notes by Hesler

Microscopic characters as in Sm-47366.

Sm-60600

GYMNOPIIUS SPECTABILIS

On fir-tree roots, Burgdorf, Idaho, August 28, 1958

Spores 7.5-10 x 5.5-7 μ , ferruginous. Same as Sm-47366. Cap appressed-fibrillose. Annulus membranous, persistent.

Sm-60765

GYMNOPIIUS SPECTABILIS

PHOTO

South Fork, Salmon River, Idaho, August 30, 1956.

Pileus densely appressed-fibrillose-scaly, scales of brown, incrustated fibrils. Veil (annulus) membranous.

Spores 7-10 x 5-6.5 μ . (Same as Sm-47366).

Sm-61100

GYMNOPIIUS SPECTABILIS

On beech, Tahquamenon, July 15, 1959

Smith says taste bitter. (Labelled G. junonius, nsm).

Spores 6-8 x 4.5-5(5.5) μ , about 1/4 dextrinoid at once. Cf. closely with spectabilis.

The two basidiocarps both show a membranous veil, persistent annulus; and the pileus is fibrillose but not scaly.

Sm-64696 GYMNOPIIUS SPECTABILIS (pallid form) PHOTO

On hardwood, Haven Hill, Michigan, August 15, 1961.
(Labelled junonius ?)

Notes by Smith

Pileus whitish then cream-buff from standing, matted-fibrillose breaking into obscure areolae. Odor disagreeable, taste bitter. (Gills narrow, close).

Stipe staining lemon-chrome in cortex; olive-gray in FeSO_4 , dingy salmon in KOH. Annulus band-like, persistent in one.

Notes by Hesler

Spores 7-9.5 x 4.5-5(5.5) μ , about 1/2 dextrinoid at once.

Dried specimen pale buff, fibrillose-scaly, not conspicuously areolate (dried). Yellow pigment, soluble in KOH, present in gills.

Sm-72104

GYMNOPIIUS SPECTABILIS

On hardwood, Emerson, Michigan, August 16, 1965, (labelled G. spectabilis by Smith).

Notes by Smith

Pileus color pale-orange-ochraceous. Context yellow; taste bitter. FeSO_4 olive. Veil membranous. Base of stipe rusty;

Notes by Hesler

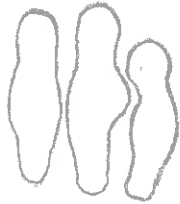
Pileus 1.5-2.5 cm broad, convex, broadly umbonate, with appressed fibrils. Context dark red-brown in 2% KOH. Lamellae close, medium broad, adnate with a decurrent tooth. Stipe 4-6 cm long, 4-6 mm thick, Veil forming a superior, membranous, persistent annulus.

Spores (6.5)7-9 x 4.5-5.5 μ , ellipsoid to subovoid, slightly inequilateral, verruculose, no germ pore, in KOH at first yellow-brown, then ferruginous after 1 1/2 hours, dextrinoid only after 1 1/2 hours. Basidia 23-27 x 7-8 μ , 4-spored. Pleurocystidia 20-25 x 6-8 μ , ventricose; basidioles 17-20 x 5-7 μ , brown, clavate to ventricose; cheilocystidia 18-28 x 5-8 μ , flask-shaped, capitate or more rarely non-capitate, scattered (many sections not showing cheilocystidia). Gill trama of subparallel hyphae, 3-6 μ broad; subhymenium not distinctive. Pileus trama of interwoven hyphae. Cuticle not sharply differentiated, bearing bundles of brown, incrusted hyphae (obscure scales).

Clamp connections present. Caulocystidia 38-63 x 5-8 μ , somewhat variable: clavate, ventricose, flask-shaped, capitate, more rarely non-capitate, often as terminal elements of tangled hyphae. Yellow pigment, soluble in KOH, present in gill trama.

Gymnopilus

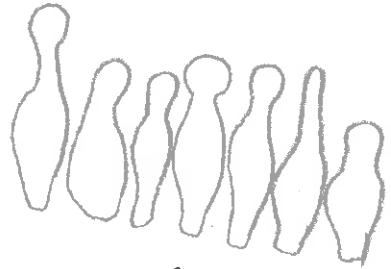
Sm - 72104



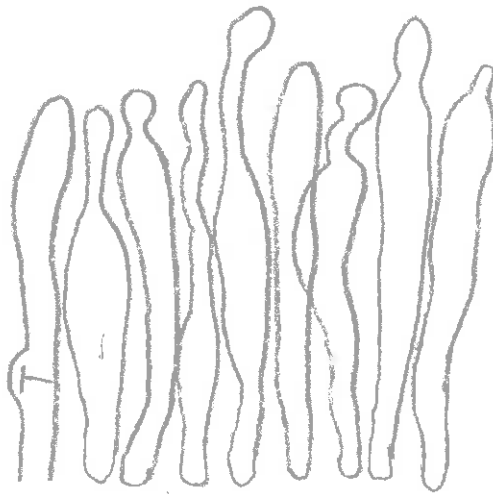
Pl - x 1000



Basidioses
- x 1000



Ch - x 1000



Caulo - x 1000

Sm-72814

GYMNOPIIUS SPECTABILIS

On hardwood, Washtanaw Co., Michigan, leg. F. Hosney (date ?)

Cap obscurely fibrillose scaly. Veil forming a *yellow*,
membranous, persistent annulus.

This is slightly immature, but agrees essentially
with Sm947366.

Sm-72862

GYMNOPIIUS SPECTABILIS

PHOTO

Cespitose on pine stump, Ann Arbor, Michigan, October 22, 1965

Notes by Smith

Pileus 4-10 cm broad, obtusely conic expanding to broadly umbonate with sloping sides, surface matted fibrillose, in age appressed-squamulose, at least near margin, dry, color near "ochraceous orange" to "zinc orange" (dull or orange-ochraceous wet). Context thick, fleshy, original color bright yellow to watery yellow, FeSO_4 slowly olive, KOH rusty reddish; odor slight, taste bitter.

Lamellae adnexed, close, moderately broad, "ochraceous buff" becoming duller, brownish spotted from injury, edges becoming slightly eroded.

Stipe 5-9 cm long, 6-10 mm at apex, tapered at base, solid, yellow within but in base soon dingy orange-brown, surface dingy orange-brown from base up, apex concolor with gills, scurfy. Veil forming a superior, membranous, thin annulus which soon collapses.

Notes by Hesler

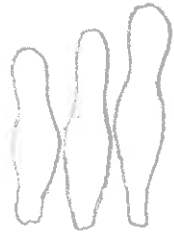
Spores 7.5-9(9.5) x 4.5-5.5 μ , ellipsoid, inequilateral, verrucose, ferruginous in KOH, dextrinoid, no germ pore. Basidia 25-28 x 6-7 μ , 4-spored. Pleurocystidia 23-26 x 5-6 μ , ventricose; cheilocystidia 20-28 x 5-7 μ , flask-shaped to ventricose, subcapitate. Gill trama of subparallel hyphae, 5-8 μ broad; subhymenium not distinctive. Pileus

trama interwoven. Cuticle of repent hyphae, bearing loose bundles of brown, incrustated hyphae. Caulocystidia 20-68 x 4-9 μ , in large, loose tufts, quite irregularly and variably shaped (flask-shaped, clavate, ventricose, cylindric, sometimes capitate, at times septate, colorless. Clamp connections present.

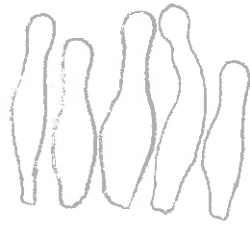
Yellow pigment, soluble in KOH, present in gill trama.

Gymnopilus spectabilis

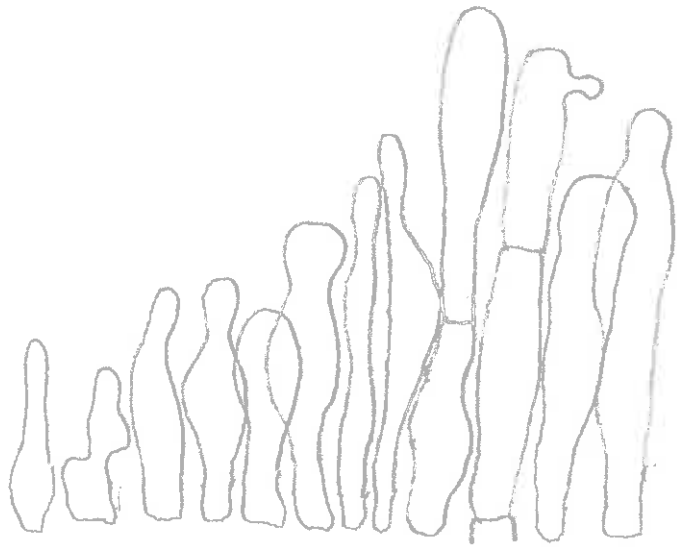
Sm - 72862



Pl - x 1000



Gh - x 1000



Caulo - x 1000

Sm-73836

GYMNOPIIUS SPECTABILIS

PHOTO
CARD (not
found)

Coeur d' Alene, Idaho, Oct. 2, 1966

Spores 6.5-9 x 4-5.5 μ , dextrinoid at once.

Notes on Dried Basidiocarps by Hesler

Large, bulky. Pileus not fully expanded, 3-8 cm broad, with scattered, appressed fibrillose scaly, not areolate, more or less buff to ochraceous, incurved. Context thick. Lamellae narrow, close. Stipe 6-16 cm long, 10-30 or 40 mm thick, more or less ventricose, concolor, bases connate. Veil membranous, forming a persistent annulus.

Yellow pigment in KOH.

Marsden-74237

GYMNOPIIUS SPECTABILIS

North Tonawanda, New York, September 13, 1958

Pileus 4-7 cm broad, tawny, smooth, appressed-fibrillose, disc at times subscaly. Lamellae close, rather broad. Stipe more or less 7 cm long, 8-11 mm thick, tawny. Veil remnants as a "ring," which is submembranous and persistent, or fibrillose and fugacious.

Spores 7-10 x 4.5-5.5 μ , verrucose, ferruginous in KOH, dextrinoid at once. Yellow pigment, soluble in KOH, present in gill trama.

Sm-74246

GYMNOPIIUS SPECTABILIS

Portland, Oregon, leg. & det. A. H. Smith, October 1954.

Spores 7-10 x 5-6 μ . Caulocystidia in tufts or as a turf. Same as Sm-47366. Yellow pigment in KOH.

Pileus appressed-fibrillose. Veil and its remains appear to have been torn away.

Sm-74249

GYMNOPIIUS SPECTABILIS

On yellow pine stump, Flagstaff, Arizona, leg. Lamphere,
September 1966.

Pileus buff, appressed fibrillose. Veil forming a
persistent, membranous annulus. Spores 8-10 x 4.5-5.5 μ .

Andrews-89852

GYMNOPIIUS SPECTABILIS

On Abies grandis, near Jericho, Idaho, leg. L. S. Gill,
R. E. Millenbaugh, and S. R. Andrews, Sept. 8, 1948

Same as Sm-47366. Not fully mature.

Pileus appressed-fibrillose; veil membranous, persistent.

Galerina?

NAUCORIA SPINULIFER Murr.

Mycologia 4: 79. 1912

On dead wood, Morce's Gap, Jamaica, Dec. 3, 1908, Murrill 705.

Type (= Gymnopilus)

Spores 7-9 x 4-5 μ , ovoid to subamygdaliform, wrinkled-rough or verrucose, pore none. Basidia (indistinct) ^{in poor condition for study}. Pleurocystidia 42-64 x 7-13 μ , ventricose with a neck, apices often crystallate; cheilocystidia 32-45 x 9-11 μ , ventricose. Gill trama a mediostrate, of slightly interwoven hyphae, 2-5 μ broad, rusty brown in 2% KOH, flanked by a gelatinous subhymenium. Pileus trama floccose. Cuticle gelatinous. Hypodermium not sharply differentiated. Clamps not observed.

Cortinarius?
~~*Hypholoma*~~
NAUCORIA SPINULIFER Murr.

Mycologia 4: 79. 1912

On dead wood, Morce's Gap, Jamaica, Dec. 3, 1908, Murrill 705.

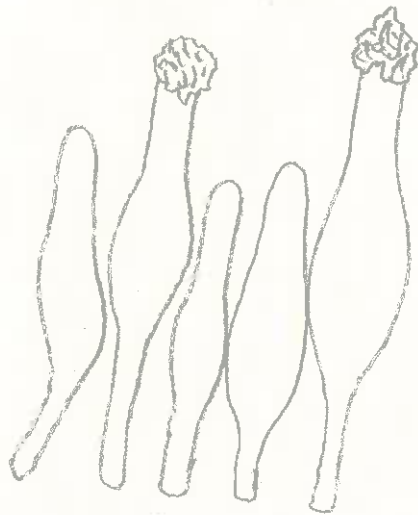
Type (= Gymnopilus)

Spores 7-9 x 4-5 μ , ovoid to subamygdaliform, wrinkled-rough or verrucose, pore none. ^{in poor condition for study} (Basidia ~~(indistinct)~~). Pleurocystidia 4.2-6.4 x 7-13 μ , ventricose with a neck, apices often crystallate; cheilocystidia 3.2-4.5 x 9-11 μ , ventricose. Gill trama a mediostrate, of slightly interwoven hyphae, 2-5 μ broad, rusty brown in 2% KOH, flanked by a gelatinous subhymenium. Pileus trama floccose. Cuticle gelatinous. Hypodermium not sharply differentiated. Clamps not observed.

Naucoria spinulifer Murr.

Type (= Gymnopilus)

Not typical
pl + ch for *Gymnopilus*



pl - x 1000



ch - x 1000

AGARICUS STICTICUS Fr., Epicr., Myc. p. 195. 1838.

(Translation from Fries)

Pileus plano-convex, sparsely minutely granular, superficially punctate, hyphrophanous, fuscescent-ochraceus (wet?), alutaceus when dry.

Lamellae adnate, close, dilute cinnamon.

Stipe fusco-ferruginascent, lightly stuffed, base enlarged, villose.

Tribe XX. Naucoria: Veil none to fugaceous; pileus subsquamulose, small, margin not striate.

I. Gymnoti - Pileus glabrous. Spores not fuscescent. Veil absolutely none.

Romell-10301

NAUCORIA STICTICA ?

Near Femsjö, October 5, 1911, leg. L. Romell.

(This is labelled doubtfully N. stictica, but it certainly is not a Gymnopilus. It might best be placed under Ramicola).

Spores 8.5-10 x 5-6.5 μ , ellipsoid, smooth, pale-yellowish in Melzer's, yellowish brown in KOH, not truncate, no germ pore. Basidia 26-30 x 6-7 μ , 4-spored. Pleurocystidia 23-30 x 9-12 μ , fusoid-ventricose, often mucronate, more rarely subpyriform, often with an irregular, refractive content (Chrysocystidia ?); cheilocystidia of 2 types: (1) cylindrical to clavate, 23-27 x 5 μ ; (2) fusoid-ventricose, more or less mucronate-capitate (similar to pleurocystidia), at times with a refractive content. Gill trama of interwoven hyphae, 5-7 μ broad; subhymenium not distinctive. Pileus trama of loosely interwoven hyphae. Cuticle repent. Pileocystidia and caulocystidia none.

Romell-10301

NAUCORIA STICTICA ?

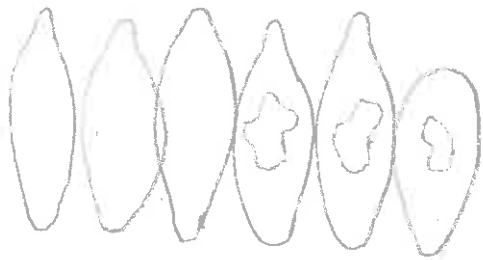
Near Femsjö, October 5, 1911, leg. L. Romell.

(This is labelled doubtfully N. stictica, but it certainly is not a Gymnopilus. It might best be placed under Ramicola).

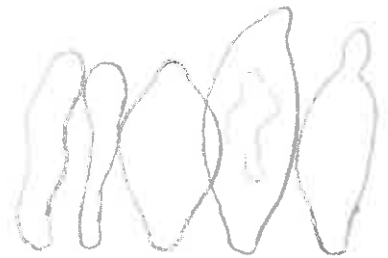
Spores 8.5-10 x 5-6.5 μ , ellipsoid, smooth, pale-yellowish in Melzer's, yellowish brown in KOH, not truncate, no germ pore. Basidia 26-30 x 6-7 μ , 4-spored. Pleurocystidia 23-30 x 9-12 μ , fusoid-ventricose, often mucronate, more rarely subpyriform, often with an irregular, refractive content (Chrysocystidia ?); cheilocystidia of 2 types: (1) cylindric to clavate, 23-27 x 5 μ ; (2) fusoid-ventricose, more or less mucronate-capitate (similar to pleurocystidia), at times with a refractive content. Gill trama of interwoven hyphae, 5-7 μ broad; subhymenium not distinctive. Pileus trama of loosely interwoven hyphae. Cuticle repent. Pileocystidia and caulocystidia none.

Naucoria stictica ?

(*N. stictica* ? leg. Romell, 10301, from Stockholm)



Pl - x 1000
(*Brysoecystidia* ?)



Ch - x 1000

NAUCORIA STICTICUS

Uppland. Uppsala. Kungsparken. December 11, 1900.
H. von Post. (Borrowed from Riksmuseum, Stockholm, May
30, 1967).

Spores 8-11.5 x 5-7 μ , ellipsoid or more often ovoid
to subvoid, slightly inequilateral, verrucose, ferruginous
in KOH, dextrinoid, with a hilum, no germ pore, apiculate.
Basidia 22-26 x 5-6 μ , 4-spored. Pleurocystidia none;
cheilocystidia 30-54 x 6-12 μ , flask-shaped, rarely capitate.
Gill trama of subparallel hyphae. Pileus trama of radial
hyphae. Cuticle of repent hyphae. Pileocystidia none.
Caulocystidia none. Clamp connections present.

NAUCORIA STICTICUS

Uppland. Uppsala. Kungsparken. December 11, 1900.
H. von Post. (Borrowed from Riksmuseum, Stockholm, May
30, 1967).

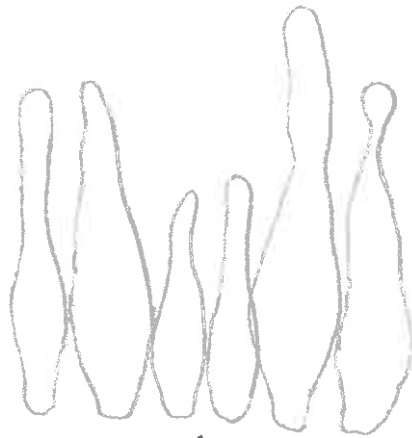
Spores 8-11.5 x 5-7 μ , ellipsoid or more often ovoid
to subvoid, slightly inequilateral, verrucose, ferruginous
in KOH, dextrinoid, with a hilum, no germ pore, spiculate.
Basidia 22-26 x 5-6 μ , 4-spored. Pleurocystidia none;
cheilocystidia 30-54 x 6-12 μ , flask-shaped, rarely capitate.
Gill trama of subparallel hyphae. Pileus trama of radial
hyphae. Cuticle of repent hyphae. Pileocystidia none.
Caulocystidia none. Clamp connections present.

Naucoria sticticus

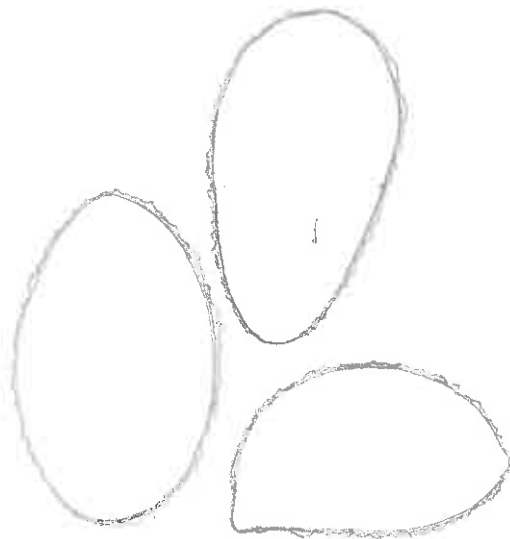
Fungi Suecici

Uppsala, Kungsparken

leg. H. von Post Dec 11, 1900



oh - x 1000



Spores - x 4000

Sm-49838

GYMNOFILUS SUB-BELLULUS sp. nov.

TYPE

On old conifer log, Tahquamenon State Park, Michigan, August 1, 1955.

(Smith, in notes, says: "near humicola but taste mild, color paler, on wood.")

Notes by Smith

Pileus 10-20 mm broad, plane with an inrolled margin, rarely slightly umbonate, between "yellow ocher" and "ochraceous tawny", fading slightly and distinctly furraceous, opaque at all times. Context brittle, thin, dull watery yellow-brown; odor and taste mild.

Lamellae adnate to adnexed, between "buckthorn brown" and "cinnamon brown" when young, subdistant, narrow, edges even.

Stipe 3-5 cm long, 3-4 mm thick, equal or enlarged downward, evenly dingy ochraceous and unpolished from matted fibrils, not discolored below. Veil none.

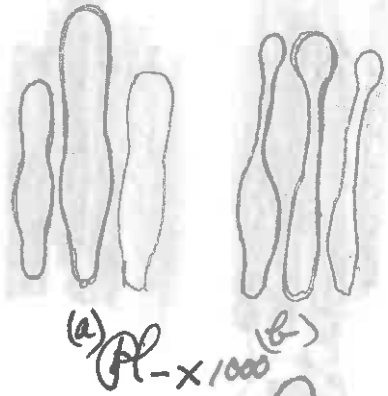
Notes by Hesler

Spores 3.5-5 x 2.4-3.8 μ , ellipsoid, ovoid, or subglobose, verruculose, ferruginous, not dextrinoid. Basidia 22-26 x 4-5 μ , 2-4-spored, some scattered basidia with only one sterigma, 10-15 μ long. Pleurocystidia 23-27 x 4-6 μ , ventricose, accompanied by flask-shaped, capitate pleurocystidia, 32-37 x 3-6 μ ; cheilocystidia 23-32 x 3-6 μ flask-shaped, neck long, slender, capitate (more rarely non-capitate), extending up the sides, 50-75 μ . Gill trama of subparallel hyphae, 2-5 μ broad; subhymenium not distinctive. Pileus trama radial. Cuticle densely fibrillose, fibrils often in tufts, the terminal elements as pileocystidia, 30-50 x 5-9 μ , clavate to ventricose, brown, or colorless, flask-shaped, capitate. Caulocystidia 27-42 x 4-5 μ , slender flask-shaped, capitate, scattered.

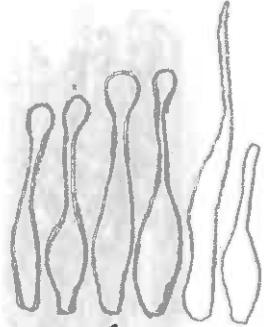
This has the general aspect of bellulus, but in bellulus the taste is bitter, gills at first bright yellow, spores promptly dextrinoid, one kind of pleurocystidia, and one kind of pileocystidia, and caulocystidia which are brown, clavate, spathulate. The spores are similar in shape to bellulus.

Gymnopilus sub-bellulus sp. nov.

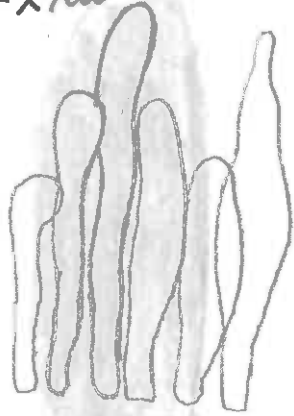
Sm-49838 - Type



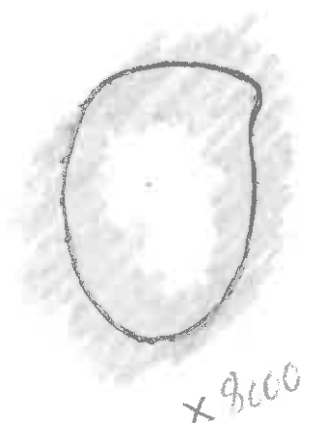
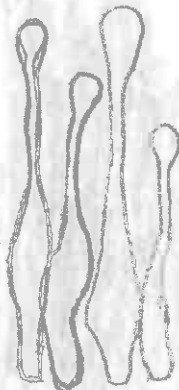
(a) Pl - x 1000 (b)



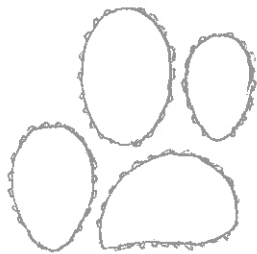
Ch - x 1000



(a) Pileo - x 1000 (b)



x 800



Spores - x 4000



Cono - x 1000



Sm-56336

GYMNOPIIUS SUB-BELLULUS sp. nov.

On red-wood, Prairie Creek Park, California, December 5, 1956.

Notes by Smith

Cap cinnamon on disc, pale pinkish cinnamon on margin.

Gills cinnamon-buff, broadly adnate, broad.

Stipe 1.5 cm x 1.5 mm, base white-mycelioid.

Notes by Hesler

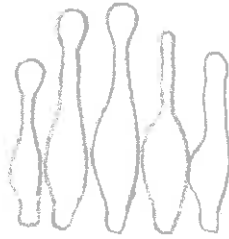
Spores 4-5.5 x 3-3.5 μ , ellipsoid, ovoid, inequilateral, pale-ferruginous, not dextrinoid. Basidia 21-24 x 4-5 μ , 4-spored. Pleurocystidia 22-25 x 4-6 μ , ventricose; cheilocystidia 21-30 x 3-6 μ , flask-shaped, capitate or often non-capitate. Gill trama subparallel. Pileocystidia 25-40 x 5-7 μ , clavate, ventricose, irregular, more or less capitate. Caulocystidia in tufts, as in Sm-49838.

Gymnophilus sub-bellulus sp. nov.

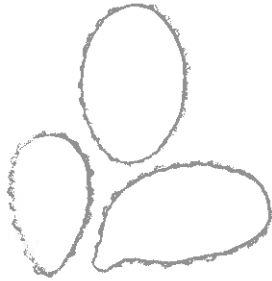
Sm - 56336



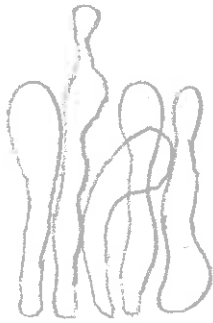
St - x 1000



Ch - x 1000



Spores - x 4000



Pileo -
x 1000

Gyromyces
~~*Flammula*~~ subdryophilus Murrill

Murrill's description (Torrey Bot. Club Bul.
67:228-229. 1940):

"Pileus convex to subexpanded, gregarious to caespitose, 5-6 cm. broad; surface becoming smooth and glabrous, fulvous, margin even, entire; context very bitter at once; lamellae sinuate-decurrent, broad, rather crowded, inserted, entire, ochroleucous to ferruginous, at length fulvous; spores ellipsoid, smooth, ferruginous, 5-6 x 3-4 μ ; stipe tapering upward, smooth, glabrous, whitish-mycelioid at the base, pale-yellowish, 4-6 x 0.3-0.5 cm., reaching 1 cm. at times at the base.

"Type collected by W. A. Murrill on an oak log near Magnesia Springs, Fla., May 27, 1938 (F 16226). Also collected by E. West on an oak log at Newnan's Lake, July 7, 1938 (F 17486). Not rare on oak logs about Gainesville. It is not scaly like G. dryophilus Murrill and the taste is exceedingly bitter instead of mild. From G. amarissimus Murrill it differs in growing on hardwood and having much smaller spores."

GYMNOPIIUS SUBDRYOPHILUS Murr.

On oak log, Magnesia Springs, Fla., April 27, 1938. F 16226

TYPE

Spores 7-8.5 x 4-5 μ , ellipsoid in face view, slightly inequilateral in profile, verruculose, no germ pore, ferruginous in KOH, dextrinoid at once in Melzer's reagent. Basidia 24-30 x 5-6 μ , (2)4-spored. Pleurocystidia colorless, 23-30 x 5-6 μ , ventricose, projecting slightly; basidioles brown, 27-30 x 5-6 μ , clavate, buried or projecting; cheilocystidia 25-33 x 4-7 μ , ^{subcapitate or non-capitate.} ventricose, Gill trama subparallel, hyphae somewhat variable from section to section, 4-9 μ broad. Pileus trama interwoven, ~~vesiculose.~~ Cuticle repent, bearing some brown, more or less erect hyphae (perhaps lactiferous; Harding thinks so!), the terminal elements pileocystidia 32-38 x 6-7 μ , cylindrical-capitate, or ventricose or clavate. Clamp connections present. Pileus and gill trama yellowish brown in KOH; reddish brown in Melzer's reagent. Caulocystidia 22-28 x 3-7 μ , ventricose, scattered.

Harding (note in box) says it is same as F. liquiritiae (Fr.) Karst., but Singer recognizes it as a taxon (Agar., p. 635. 1962.)

GYMNOPIIUS SUBDRYOPHILUS Murr.

On oak log, Magnesia Springs, Fla., April 27, 1938. F 16226

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Harding (note in box) says it is same as F. liquiritiae (Fr.) Karst., but Singer recognizes it as a taxon (Agar., p. 635. 1962.)

Flammula subdryophila Murr.

Type - 716226



(a) colorless

Pl - x 1000



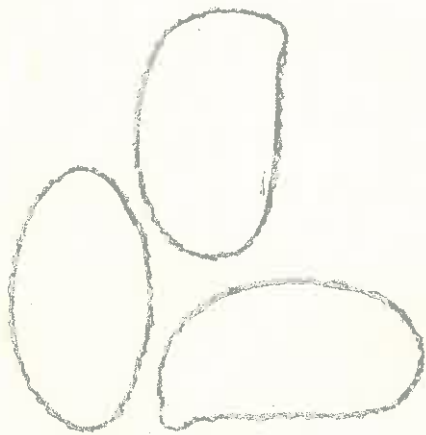
(b) brown



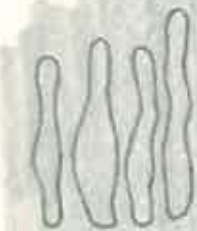
Ch - x 1000



Pileo - x 1000



Spores - x 4000



Caulo - x 1000

Potter-12396

GYMNOPIIUS SUBDRYOPHILUS

On rotten hardwood, stick, Edgewood, Michigan, Sept. 27, 1959

(Label says "notes", but none found)

Spores 6.5-8 x 4-5 μ , ellipsoid, slightly inequilateral, verruculose, ferruginous in KOH, dextrinoid, no germ pore. Basidia 24-28 x 4-5 μ , 4-spored. Pleurocystidia 26-32 x 5-7 μ , ventricose; cheilocystidia 24-30 x 4-6 μ , flask-shaped, capitate or subcapitate, more rarely non-capitate. Gill trama of subparallel hyphae, 6-10 μ broad; subhymenium not distinctive. Pileus trama of loosely interwoven, colorless hyphae, 5-12 μ broad. Cuticle thin of repent hyphae, with scattered, erect, colorless or pale brown pileocystidia, mostly slender, hyphoid, 12-20 x 0.8-1.2 μ , a few filamentous-capitate, ~~XXXX~~ 52 x 5. Caulocystidia 20-40 x 3-5 μ , filamentous or more rarely flask-shaped-capitate, scattered.

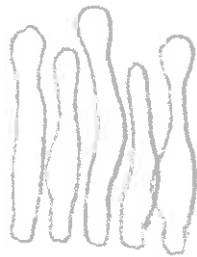
It is not liquiritiae which has a radial pileus trama. It is the same as Potter-13366, and both are G. subdryophilus.

Gymnopleus sub-dryophilus

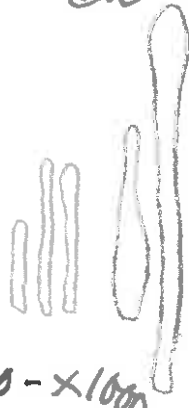
Botter - 12296



Pl - x 1000



Ch - x 1000



Piles - x 1000



Carlo - x 1000

geminellus

GYMNOPIIUS SUBPENETRANS Murr.

On dead royal palm trunk, Managua, Cuba, leg. C.F. Baker, (Earle 526), May 25, 1906.

TYPE

Spores 7-8.5 x 4.5-5 μ , ellipsoid to subvoid in face view, inequilateral in profile, warty, no germ pore, ferruginous in KOH, dextrinoid. Basidia 24-30 x (5)6-7 μ , 4-spored. Pleurocystidia 22-30 x 4-6 μ , clavate or ventricose, colorless or brown, usually buried; cheilocystidia 15-27 x 3-7 μ , ventricose, usually conchyloid, more or less capitate, colorless or brown. Gill trama subparallel, hyphae 5-10 μ broad. Pileus trama radial. Cuticle of brown repent hyphae, some more or less uplifted. Clamp connections present. Caulocystidia none. Pileus and gill trama pale yellowish in KOH, exuding a yellowish pigment in KOH; dark reddish brown in Melzer's reagent.

Faintly amber colored pigment, soluble in KOH, present in gill trama.

GYMNOPIIUS SUBPENETRANS Murr.

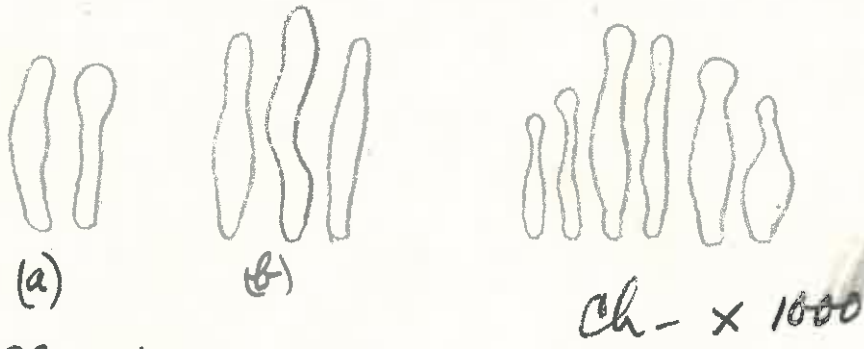
On dead royal palm trunk, Manag^Uua, Cuba, leg. C.F. Baker,
(Earle 526), May 25, 1906.

TYPE

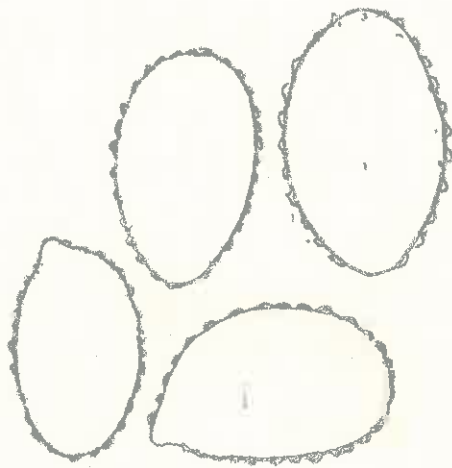
Spores 7-8.5 x 4.5-5 μ , ellipsoid to subovoid in face view, inequilateral in profile, warty, no germ pore, ferruginous in KOH, dextrinoid. Basidia 24-30 x (5)6-7 μ , 4-spored. Pleurocystidia 22-30 x 4-6 μ , clavate or ventricose, colorless or brown, usually buried; cheilocystidia 15-27 x 3-7 μ , ventricose, usually concybooid, more or less capitate, colorless or brown. Gill trama subparallel, hyphae 5-10 μ broad. Pileus trama radial. Cuticle of brown repent hyphae, some more or less uplifted. Clamp connections present. Caulocystidia none. Pileus and gill trama pale yellowish in KOH, exuding a yellowish pigment in KOH; dark reddish brown in Melzer's reagent.

Gymnopilus subpenetrans Murr.

Type



Pl - (a) brown; (b)
colorless - x 1000



Spores - x 4000

Sipe-1271

GYMNOPIIUS SUBSAPINEUS sp. nov.

TYPE

On rotted wood, Oregon, October, 1959.

Notes by Sipe

Pileus 2-5 cm broad, convex, expanding, appearing glabrous, "Mars yellow", smooth, dry, context yellowish; taste bitter. Gills emarginate, with a decurrent tooth, yellowish, narrow, close. Stipe 4-6 cm long, 3-6 mm thick, white, silky striate. (I found veil remnants on the stipe.)

Notes by Hesler

Spores 6-8.5 x 4.5-5 μ , ellipsoid, inequilateral, verruculose, ferruginous in KOH, dextrinoid, no germ pore. Pleurocystidia of two general types: (1) 25-28 x 5-6 μ , ventricose, (2) 22-42 x 5-7 μ , flask-shaped and capitate (similar to the cheilocystidia), ^{the capitellum} apices often acute; cheilocystidia 23-27 x 4-6 μ , flask-shaped, capitate or non-capitate, sometimes the apex acute. Gill trama of subparallel hyphae, 3-6 μ broad; subhymenium not distinctive. Pileus trama of radial hyphae. Cuticle fibrillose, the hyphae brown, incrustated; pileocystidia none. Clamp connections present, small. Caulocystidia 44-68 x 4-10 μ , more or less cylindrical-capitate, at times ventricose, in distinct tufts. Pale yellow pigment, soluble in KOH, present in the gill trama.

Gymnoplus subsapineus sp. nov.

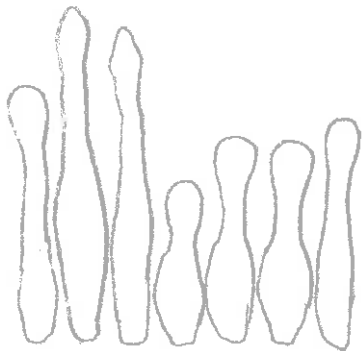
Sipe-1271 - Type



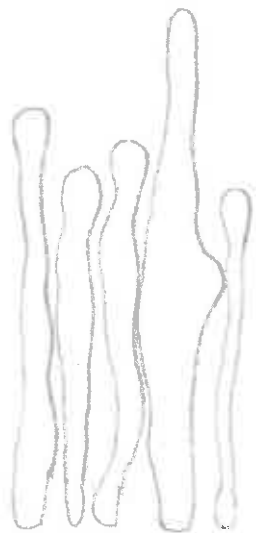
Pl - x 1000



Ch - x 1000



Pl - x 1000



Caulo (tufts)
- x 1000



Spore - x 4000

Thiers - 21275 GYMNOPIIUS SUBSPECTABILIS sp. nov.

Boulder Creek, Santa Cruz Co., Calif., Jan. 5, 1962, Coll. H. Christensen;
det. Thiers (as G. spectabilis).

Notes by Hesler

Pileus 9-12 cm broad, somewhat tawny, conspicuously brown-fibrillose, fibrils in coarse strands, no fibrillose squamules (as in Type).

Lamellae brown, close, rather broad to medium narrow.

Stipe short (apparently inserted in woody substratum).

Spores 8.5 - 13 x 5-7 μ , sublimoniform, or subfusoid, verrucose, dextrinoid. Pleurocystidia and cheilocystidia as in type. Pileus trama interwoven. Cuticle a zone of brown, repent hyphae, with surface fibrils.

This differs from the type of G. subspectabilis which is generally slightly paler (dried), and which has a distinct stipe. In this collection (by Christensen), described above, the stipe may have been buried in the substrate, or it may have been attached to the substrate at a point below the soil-line, and may have been separated from the pileus.

Sm-64755 GYMNOPIIUS SUBSPECTABILIS sp. nov.

On hardwood, Ann Arbor, Michigan, October 25, 1961, leg.
Smith who labelled it "spectabilis."

TYPE

Notes on Dried Material (by LRH)

Pileus 5-8 cm broad, pale yellowish tawny, closely appressed-fibrillose-squamulose. Context yellowish, thick on disc, abruptly thin on margin. Smith says taste bitter; KOH on flesh orange-brown, FeSO_4 olive at gill-line.

Lamellae adnate, close, medium narrow, "clay color" to "tawny olive."

Stipe 3.5-8(10) cm long, 8-14 mm thick, equal, rarely ventricose, whitish. Veil as a submembranous annulus.

Spores (8.5)9-12.5 x (5)5.5-7.5 μ , ellipsoid, fusoid to sublimoniform in face view, inequilateral in profile, coarsely verrucose, no germ pore, pale ferruginous in KOH, dextrinoid. Pleurocystidia 27-30 x 6-8 μ , ventricose; cheilocystidia 17-27 x 3-8 μ , flask-shaped, capitate. Gill trama of subparallel hyphae, 5-11 μ broad; subhymenium not distinctive. Pileus trama of loosely interwoven broad hyphae, 8-28 μ diameter. Cuticle of narrow pale brownish zone of repent hyphae, with bundles of brownish, more or less erect or repent hyphae (scales). Clamp connections present. Caulocystidia 30-53 x 5-7 μ , ventricose to subcylindric, capitate, as terminal elements on epicuti-

cular hyphae. Yellow pigment, soluble in KOH, present in gill trama.

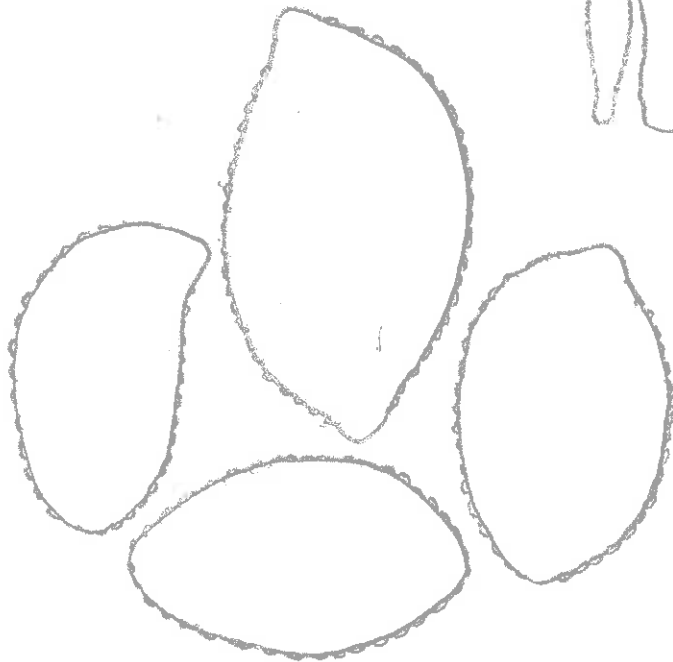
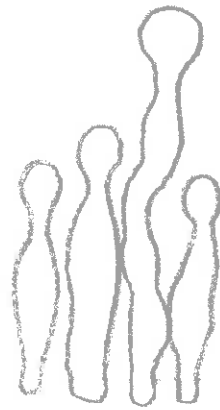
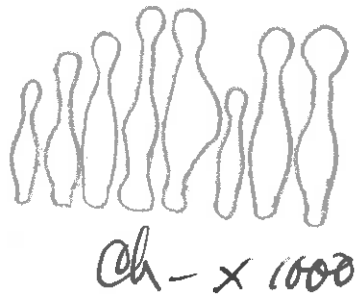
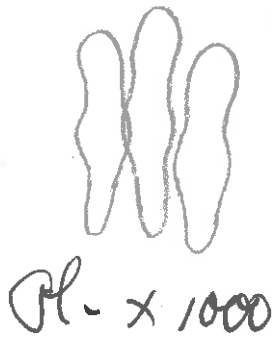
Characterized by: (1) pallid, yellowish tawny pileus, which is often more or less appressed-squamulose; (2) large spores, often amygdaliform to fusoid; (3) distinctive, loosely interwoven pileus trama, the hyphae unusually broad.

The spores somewhat suggest Cortinarius, but they are ferruginous in KOH, dextrinoid at once; moreover the cheilocystidia are rather typical of Gymnopilus, and the basidiocarps ~~are~~ wood-inhabiting.

Gymnopilus subperfectabilis

Sm - 64755

Type
Jm



G. subspectabilis

sm - 64755 - Type



Spore - x 8000

Sm-68785

GYMNOPIILUS SUBSPECTABILIS

On oak stump, San Gabriel Valley, Calif., leg. Richard Morrison, det. Hesler, November 1964.

Pileus 7-14 cm broad, convex-expanded, surface appressed-fibrillose, at times obscurely squamulose, fibrils brown over a pallid base, margin even. Context rather thin, whitish or pallid.

Lamellae adnate with a decurrent tooth, broad, or medium broad, close or crowded, edges rough.

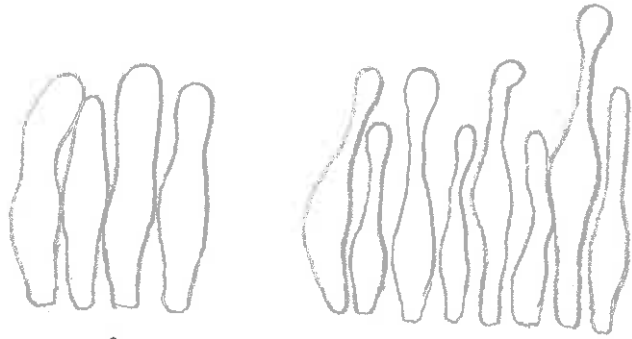
Stipe 8-14 cm long, 10-25 mm thick, crooked, concolorous, longitudinally grooved, minutely fibrillose, finally hollow. Veil remnants on stipe, somewhat membranous.

Spores 8-12 x 5.5-7 μ , ellipsoid, inequilateral, verruculose, ferruginous in KOH, dextrinoid at once, no germ pore. Basidia 30-42 x 6-8 μ , 2-4-spored. Pleurocystidia 27-32 x 5-7 μ , ventricose; cheilocystidia 24-43 x 4-6 μ , flask-shaped to ventricose, capitate to non-capitate. Gill trama of subparallel hyphae, (3)5-12 μ broad; subhymenium not distinctive. Pileus trama loosely interwoven. Cuticle a thin zone of repent hyphae, with scattered, small bundles of brown, incrusted epicuticular hyphae. Caulocystidia 38-55 x 5-6 μ , filamentous to subventricose, often obscurely capitate. Clamp connections present.

~~WATERBURY HERBARIUM~~

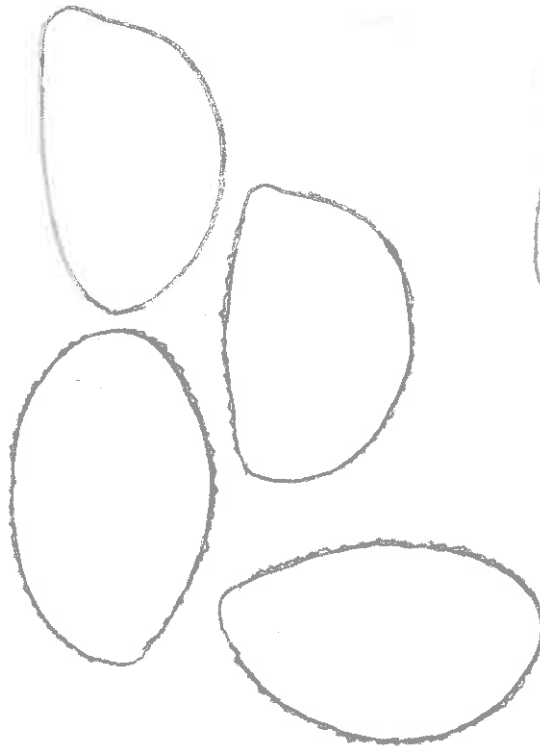
Gymnopilus sub-spectabilis
~~*magnus*~~

Sm - 68785

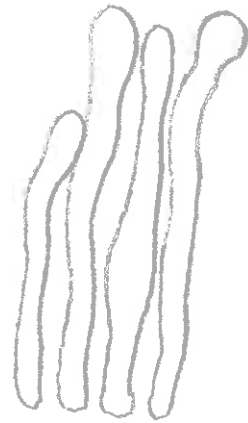


Pl - x 1000

Ch - x 1000



Spores - x 4000



Canls - x 1000

subtropicum

Bessey-497 GYMNOPIIUS HAWAIIENSIS sp. nov.

On fence post of Metrosideros collina-polymorpha (a shrub of family Myrtaceae), Oaha, Hawaii, leg. Ernest Akamine, March 25, 1940.

All Notes by Hesler (on dried material)

Pileus 3-4 cm broad, convex, yellowish (near "antimony yellow"), densely brownish fibrillose, fibrils often in fascicles to form fibrillose scales, other fibrils more or less repent, dry. Context yellowish, reddish brown in 2% KOH.

Lamellae adnate-decurrent, close, broad, edges obscurely pale.

Stipe 3.5-4 cm long, 3-5 mm thick, yellowish above, tawny below, fibrillose, striate, solid, clavate-enlarged at base. Veil arachnoid, fugaceous, remnants on the stipe forming an indistinct ring.

Spores 6-7 x 4-4.5 μ , ellipsoid in face view, slightly inequilateral in profile, verruculose, ferruginous in KOH, dextrinoid, no germ pore. Basidia 24-28 x 6-7 μ , 4-spored. Pleurocystidia 23-30 x 5-7 μ , ventricose; cheilocystidia of two types: (1) 16-25 x 3-6 μ , ventricose, non-capitate, (2) 13-23 x 4-5 μ , clavate (more rare). Basidioles 24-30 x 5-9 μ , clavate or ventricose, at times capitate, brown;

Gill trama of subparallel hyphae, 5-12 μ broad; subhymenium not distinctive. Pileus trama interwoven. Cuticle of repent, brownish hyphae, scarcely differentiated from the trama, the surface bearing pallid-brown hyphae which are

often in erect or semi-erect fascicles (fibrillose scales),
these hyphae 5-18 μ broad. Caulocystidia cylindric or
clavate, 38-52 x 5-9 μ . Clamp connections present. *Yellow pigment,*
soluble in KOH, present in gill trama.

Near aureobrunneus in which the spores are not dextrinoid,
and pileocystidia present. Cf. chrysotrichus which lacks
pleurocystidia, and chrysopellus which is umbilicate,
larger spores, and no veil.

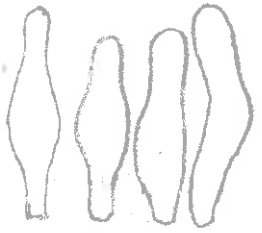
subtropicalis

Bessey-607 GYMNOPIIUS ~~HAWAIIENSIS~~ sp. nov.

On old stump, probably Metrosideros collina polymorpha,
Oaku, Hawaii, leg. Ernest Akamine, Spring, 1940.

Spores 6-7 x 4-4.5 μ . Otherwise same as Bessey-497.

Gymnopus hawaiiensis
subtropicus
Bessy - 497



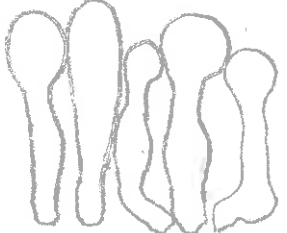
Bl - x 1000



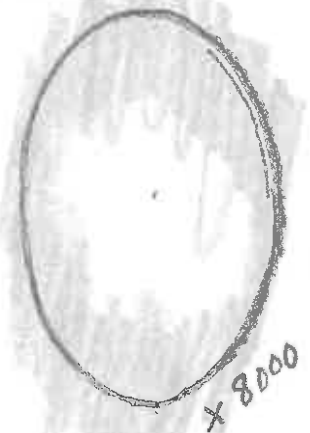
Ch (usual) x 1000
(Most common type)



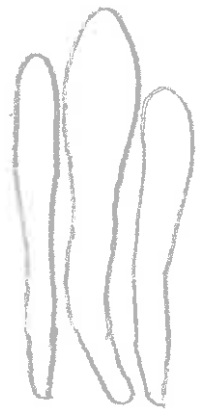
Ch (occasional
or rare) x 1000



Basidioles
x 1000



x 8000



Caule - x 1000



Spores - x 4000

Thiers - 4754

GYMNOFILUS SUBTROPICUS

On palm log, near Gainesville, Fla., July 23, 1958.

Note by Thiers

Pileus fibrillose, scaly.

Notes by Hesler

Spores 5.5-7 x 4-4.5 μ , ellipsoid, inequilateral, wrinkled-verruculose, ferruginous, slightly to moderately and slowly dextrinoid, no germ pore. Basidia 24-30 x 5-7 μ , 4-spored. Pleurocystidia 24-28 x 6-8 μ , ventricose; basidioles 15-12 x 3-5 μ , cylindric, clavate, brown. Cheilocystidia 12-30 x 3-6 μ , flask-shaped, non-capitate or more rarely subcapitate, often rare and inconspicuous. Gill trama of subparallel hyphae, 4-10 μ broad; subhymenium not distinctive. Pileus trama of interwoven hyphae, often loosely so. Cuticle not greatly differentiated, bearing loose to close⁺ tufts of ⁺ erect to repent brown hyphae (scales: some erect and subhispid, others flat-squamules). Pileocystidia none. Clamp connections present.

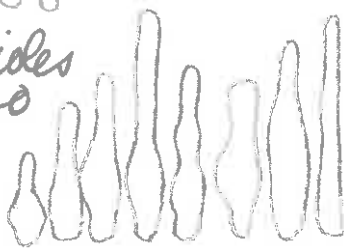
Gymnopilus Ravviensis
subtropicus
Thiers - 4754



Pl - x 1000



Basidiales
x 1000



Ch - x 1000

Thiers - 4766

GYMNOPIIUS SUBTROPICUS

Gregarious on palm log, Rochelle Hammock, east of Gainesville, Fla.,

July 24, 1958.

Spores 5.5-7 x 4-4.5 μ , dextrinoid (dark red) after 10 min.

Thiers - 5238

GYMNOPIIUS SUBTROPICUS

On oak log, Devils Millhopper, west of Gainesville, Fla., Aug. 18, 1958.

Spores 5-7 x 4-4.5 μ , dextrinoid.

Thiers - 5239

GYMNOPIIUS SUBTROPICUS

On log, Devils Millhopper, west of Gainesville, Fla., Aug. 18, 1959.

Spores 5.5-7 x 4-4.5 μ , dextrinoid.

Thiers - 5312

GYMNOPIIUS SUBTROPICUS

Solitary, on hardwood log, Micanopy, Fla., Aug. 19, 1958.

Spores 5.5-7 x 4-4.5 μ , dextrinoid.

Thiers - 5358

GYMNOPIIUS SUBTROPICUS

Solitary on oak log, Newman's Lake, east of Gainesville, Fla., Aug. 21, 1958.

Cap yellow, scaly. Spores 5.5-7 x 4-4.5 μ , dextrinoid.

Thiers - 6428

GYMNOPIIUS SUBTROPICUS

On log, Ocean Springs, Miss., June 17, 1959.

Cap 2-4.5 cm broad, yellow, fibrillose scaly.

Spores 5.5-7 x 4-4.5 μ , dextrinoid.

Thiers - 6345

GYMNOPIIUS SUBTROPICUS SP. NOV.

TYPE

On oak log, Biloxi, Miss., June 5, 1959.

Cap yellow, fibrillose scaly.

~~Spores (5) 5.5-7 x 4-4.5 μ , dextrinoid.~~

Spores (5) 5.5-7 x 4-4.5 μ , ellipsoid, slightly inequilateral, wrinkled-warty, ferruginous in KOH, dextrinoid, no germ pore. Basidia 24-28 x 6-7 μ , 4-spored. Pl 23-30 x 5-8 μ , ventricose; ~~in~~ basidioles 20-30 x 5-9 μ , clavate or ventricose, some capitate, with brown contents; ch 12-30 x 3-6 μ , flask-shaped or ventricose, non-capitate or more rarely subcapitate. Gill trama subparallel, hyphae 5-12 μ broad; subhymenium not distinctive. Pileus trama interwoven. Cuticle repent, ~~brownish~~ brownish, scarcely differentiated from trama, with erect to semi-erect pallid-brown hyphae in bundles (scales). Pileocystidia none. Caulocystidia 22-62 x 4-9 μ , ventricose, cylindric, or clavate, at times capitate. Clamps present. A yellow pigment, soluble on KOH, present in gill trama.

Thiers - 7831 SUBTROPICUS SP. NOV.
GYMNOFILUS ~~HAWAIIENSIS~~ sp. nov.

Gregarious on oak log, Chicot State Park, Louisiana, July 20, 1960.

All Notes by Hesler (from dried specimens)

Pileus 1-3 cm broad, convex, expanding, slightly depress, tawny, fibrillose on margin, with erect conic (\pm hispid) fibrillose scaly on center. Context thin.

Lamellae adnate, subdecurrent, close, medium broad, brown.

Stipe 2-5 cm long, 2-4 mm thick, dingy, equal. Veil fugacious, a few remnants on upper portion of stipe.

Spores 6-7(7.5) x 4-4.5 μ , ellipsoid, slightly inequilateral, verruculose, ferruginous in KOH, dextrinoid, no germ pore. Basidia 16-20 x 4-5(6) μ , 4-spored. Pleurocystidia 16-24 x 4-6 μ , ventricose; basidioles 20-23 x 5-6 μ , clavate to ventricose, brown; cheilocystidia 17-26 x 4-6 μ , flask-shaped with a neck, non-capitate, in widely scattered groups. Gill trama of subparallel hyphae, 2-4 μ broad; subhymenium not distinctive. Pileus trama of interwoven hyphae. Cuticle repent, with \pm conic, erect, brown, hyphal tufts (scales). Clamp connections present. Pileocystidia none. Caulocystidia 22-62 x 4-9 μ in scattered tufts, somewhat variable (ventricose, clavate, capitate, cylindrical, rarely septate).

Agrees in essentials with the type. Differs from bryophilus in which the pileus is ferruginous, scales not erect, pileus trama radial; from pacificus in which the pileocystidia are spatulate, the cheilocystidia short-necked or jug-shaped; hispidellus in which the spores are non-dextrinoid, the pileus trama radial, and the veil subannulate.

Gymnopilus lawsoniensis sp. nov.
subtropicus
Thiers-7831 (from Louisiana)



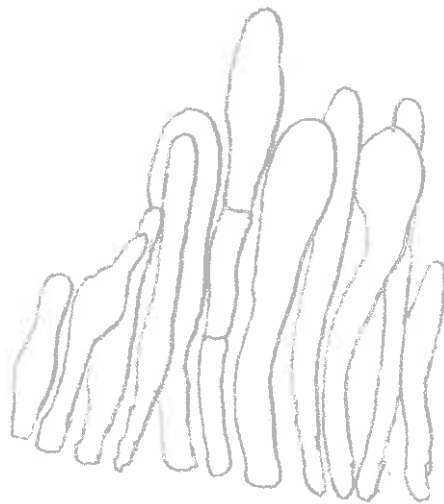
Pl- x 1000



Parasoles
x 1000



Ch- x 1000



Caulo - x 1000

Thiers - 7899

GYMNOPIIUS SUBTROPICUS

Cespitose, on hardwood stump, Chicot State Park, near Ville Platte, La.,
July 23, 1960.

Spores 5.5-7 x 4-4.5 μ , dextrinoid.

Thiers - 7913

SUBTROPICUS SP. NOV.
GYMNOPIIUS ~~MAXIMUS~~

Gregarious to subcespitose on hardwood log, Chicot State Park, near Ville Platte, La., July 24, 1960.

Pileus pale tawny, densely brown-fibrillose, often as fibrillose-scales.

Spores 6-7 x 4-4.5 μ , dextrinoid. Pleurocystidia ventricose, 22-26 x 6-7 μ ; cheilocystidia 20-25 x 4-6 μ , flask-shaped, non-capitate. Pileus trama interwoven. Gill trama of subparallel hyphae, 7-18 μ broad.

GYMNOPIIUS SUBVIRIDIS Murr.

On decayed fir stump, Olympia, Wash., leg. Miss M. McKenny,
November 27, 1914.

TYPE

Spores 4.5-6 x 3.5-4 μ , mostly ovoid or subovoid, some short-ellipsoid in face view, slightly inequilateral in profile, verruculose to somewhat asperulate, with an apiculate hilum, no germ pore, dextrinoid at once. Basidia 27-34 x 5-7 μ , 4-spored. Pleurocystidia of two types: (a) clavate, brown, buried, 23-30 x 3-5 μ , (b) slender-ventricose, capitate, 27-43 x 3-5 μ ; cheilocystidia 20-30 x 3-4 μ , ventricose, flask-shaped, capitate, more rarely filiform. Gill trama subparallel, hyphae 4-8 μ broad. Pileus trama radial. Cuticle a repent zone of brown hyphae, bearing a turf of slender, erect, filamentous to subventricose, capitate pileocystidia, 36-57 x 1.5-2 μ . Clamp connections present. Pileus and gill trama reddish brown in KOH, and Melzer's reagent. (The specimen lacked stipe material for the determination of the presence or absence of caulocystidia).

yellow pigment, soluble in KOH, present in gill trama.

G. punctifolius a synonym.

GYMNOPIIUS SUBVIRIDIS Murr.

On decayed fir stump, Olympia, Wash., leg. Miss M. McKenny,
November 27, 1914.

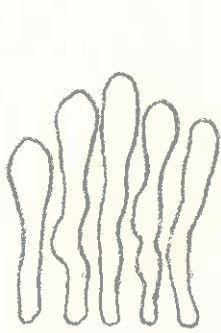
TYPE

Spores 4.5-6 x 3.5-4 μ , mostly ovoid or subovoid, some short-ellipsoid in face view, slightly inequilateral in profile, verruculose to somewhat asperulate, with an apiculate hilum, no germ pore, dextrinoid at once. Basidia 27-34 x 5-7 μ , 4-spored. Pleurocystidia of two types: (a) clavate, brown, buried, 23-30 x 3-5 μ , (b) slender-ventricose, capitate, 27-43 x 3-5 μ ; cheilocystidia 20-30 x 3-4 μ , ventricose, flask-shaped, capitate, more rarely filiform. Gill trama subparallel, hyphae 4-8 μ broad. Pileus trama radial. Cuticle a repent zone of brown hyphae, bearing a turf of slender, erect, filamentous to subventricose, capitate pileocystidia, 36-57 x 1.5-2 μ . Clamp connections present. Pileus and gill trama reddish brown in KOH, and Melzer's reagent. (The specimen lacked stipe material for the determination of the presence or absence of caulocystidia).

G. punctifolius a synonym.

Gymnopilus subviridis Murr.

Type

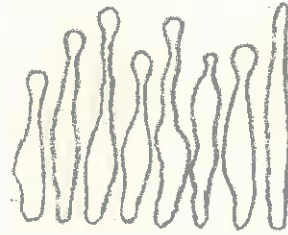


(a) brown

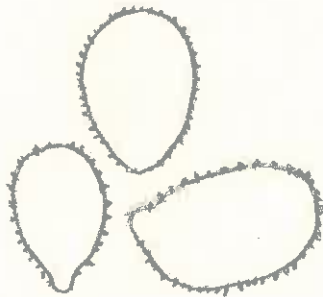


(b) colorless

Pl - x 1000



Ch - x 1000



Spores - x 4000



Pileus - x 1000



x 8000



Sm-55911

GYMNOPIIUS SUBVIRIDIS

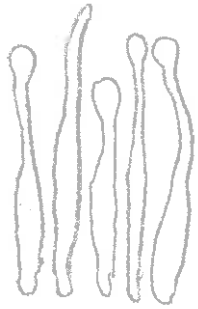
On rotten conifer log, Crescent City, Calif, Nov. 21, 1956

(Same as G. punctifolius)

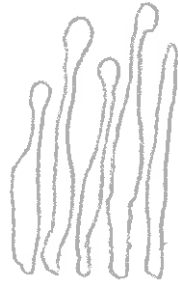
Spores 4.5-5.5 x 4-4.5 μ , ellipsoid or ovoid, inequilateral, verruculose, no germ pore, ferruginous in KOH, dextrinoid at once. Pleurocystidia 28-38 x 2-4 μ , filamentous to sub-ventricose, capitate or occasionally non-capitate; cheilocystidia 25-36 x 2-4 μ broad; subhymenium not distinctive. Pileus trama radial. Cuticle of repent hyphae, bearing scattered pileocystidia (similar to pleurocystidia and cheilocystidia). Caulocystidia 18-44 x 2-3 μ , similar to pleurocystidia and cheilocystidia, scattered.

Gymnopilus subviridis
(= *punctifolius*)

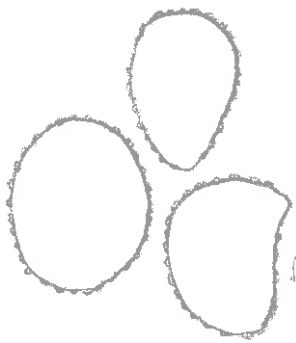
Sm - 55 - 9111



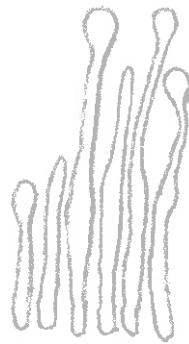
Pl - x 1000



ch - x 1000



Spores - x 4000



Caulis - x 1000

(Piles as pl, ch, caulis)

GYMNOPIIUS TENUIS Murr.

On dead wood, Port Antonio, Jamaica, leg. F.S. Earle,
November 24, 1902, No. 612.

TYPE

Spores 7-8.5 x 4-5 μ , ellipsoid to subvoid in face view, inequilateral in profile, verruculose, no germ pore, not dextrinoid. Basidia 23-30 x 5-6 μ , 4-spored. Pleurocystidia (a) brown (basidioles ?), buried, scattered, 20-30 x 6-8 μ , clavate, (b) colorless, ventricose, 23-27 x 7-8 μ , scattered; cheilocystidia 16-25 x 3-7 μ , ventricose or sometimes more or less conocyboid. Gill trama undulating subparallel, hyphae 3-5 μ broad. Pileus trama radial. Cuticle of repent, brownish hyphae, bearing clusters (scales) of brown hyphae, at times incrustated. Clamp connections present. Caulocystidia none. Pileus and gill trama yellowish brown in KOH; reddish brown in Melzer's reagent.

When sections of pileus are mounted in KOH, a yellowish pigment diffuses out.

GYMNOPIIUS TENUIS Murr.

On dead wood, Port Antonio, Jamaica, leg. F.S. Earle,
November 24, 1902, No. 612.

TYPE

Spores 7-8.5 x 4-5 μ , ellipsoid to subvoid in face view, inequilateral in profile, verruculose, no germ pore, not dextrinoid. Basidia 23-30 x 5-6 μ , 4-spored. Pleurocystidia (a) brown (basidioles ?), buried, scattered, 20-30 x 6-8 μ , clavate, (b) colorless, ventricose, 23-27 x 7-8 μ , scattered; cheilocystidia 16-25 x 3-7 μ , ventricose or sometimes more or less conocyboid. Gill trama undulating subparallel, hyphae 3-5 μ broad. Pileus trama radial. Cuticle of repent, brownish hyphae, bearing clusters (scales) of brown hyphae, at times incrustated. Clamp connections present. Caulocystidia none. Pileus and gill trama yellowish brown in KOH; reddish brown in Melzer's reagent.

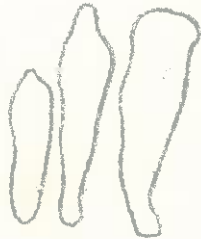
When sections of pileus are mounted in KOH, a yellowish pigment diffuses out.

Gymnopilus tenuis Murr.

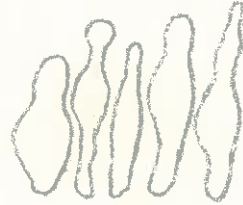
Type



(a)

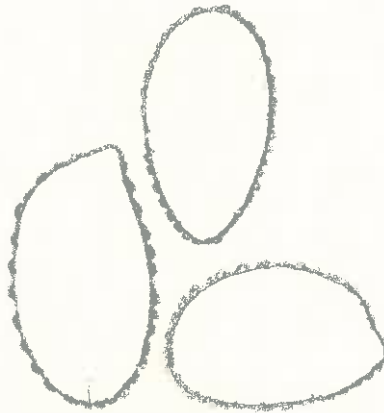


(b)



ch - x 1000

Pl. - (a) coloratus; (b)
brown - x 1000



Spores - x 4000

Thiers - 1112

GYMNOPIIUS TERRESTRIS

Solitary in mixed woods, Cheboygan Co., Mich., Aug. 3, 1951 (det. as
Naucoria stictica by Smith).

Spores 5.5-7(7.5) x 4-5 μ .

Shafer-1201

terrestris
GYMNOPILUS ~~STICTIGUS~~

Big Payette Lake, McCall, Idaho, September 17, 1956.

Spores 5.5-8 x 4.5-5 μ . (Same as Sm-40156).

Sm-3121

terrestris
GYMNOPILUS ~~STICTICUS~~

On humus, along a road, Lake Crescent, Wash., Oct. 13, 1935.

(Same as Sm-40156).

SM - 3312

GYMNOPIIUS TERRESTRIS

Roadside, under bushes, Lake Crescent, Wash., Oct. 23, 1935.

Spores 5.5-7(7.5) x 4.5-5.5 μ . Pleurocystidia and cheilocystidia none. Otherwise as in Type (SM - 40156).

SM - 17452

GYMNOPIIUS TERRESTRIS

CARD, PHOTO

Olympic Nat. Park, Washington, Sept. 30, 1941 (det. Smith as
Naucoria stictica).

Spores 5.5-7.5 x 4.5-5.5 μ .

Sm-19668

terrestris
GYMNOPIIUS ~~STICTICUS~~

Rhododendron, Oregon, October 13, 1944

(Same as Sm-40156).

Sm-37101

terrestris
GYMNOPIIUS ~~SPICIFICUS~~

Wilderness Park, Michigan, July 25, 1951, leg. Don Palmer,

(Same as Sm-40156).

Sm-39986

terrestris
GYMNOPILUS ~~SPICIFICUS~~

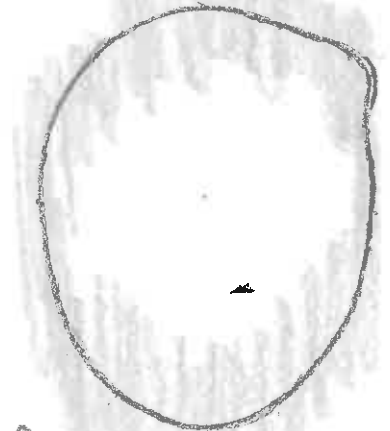
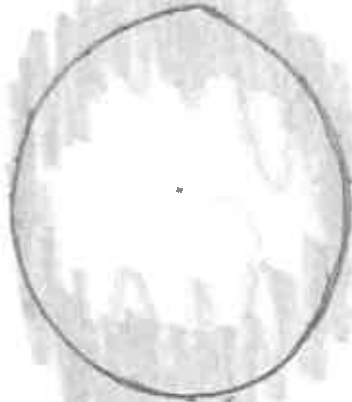
Carbon River, MRNP, Washington, September 16, 1952.

(Same as Sm-40156).

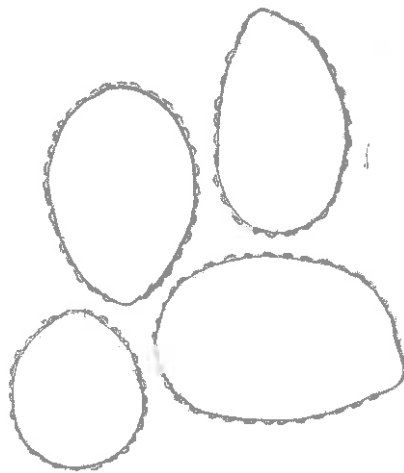
Gymnopilus sticticus terrestris sp. nov.

FM - 40156

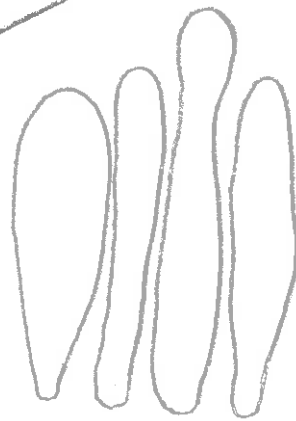
Type



x 8000



Spores - x 4000



Caulo - x 1000

Sm-40156

GYMNOPIIUS TERRESTRIS sp. nov.

On soil, Longmire, Washington, September 22, 1952

TYPE

Spores (5)5.5-7(8) x (4)4.5-5.5(6) μ , ellipsoid, short-ellipsoid to subglobose, or ovoid in face view, slightly inequilateral in profile, verruculose, no germ pore, ferruginous in KOH, slightly dextrinoid at first, then entirely so after one hour. Basidia 30-36 x 6-7 μ , 4-spored. Pleurocystidia and cheilocystidia none. Gill trama of subparallel hyphae, 4-10 μ broad; subhymenium not distinctive. Pileus trama of radial hyphae. Cuticle a zone of repent, colorless hyphae, sometimes incrustated, and with occasional uplifted elements, the terminal cells of which are clavate or fusoid pileocystidia, 33-50 x 6-10 μ . Clamp connections present. Caulocystidia 42-52 x 6-13 μ , cylindric, ventricose, to subclavate, usually as terminal elements of tangled hyphae. No yellow pigment in gill trama, in KOH.

The pileus cuticle is narrow to very thin zone of colorless hyphae, which often suggest a gelatinous surface; however, these hyphae are usually not gelatinized; but at times, a slight gelatinization occurs.

Smith (Mycologia 29:58) says cap at first "Sanford's brown."

Sm-42352

Terrestris
GYMNOPIIUS ~~STICTICUS~~

Under spruce, ^{WAUS}~~Wang~~ Pt., Michigan (X), August 26, 1953.

(Same as Sm-40156).

Sm-42956

Terrestris
GYMNOPIIUS ~~STICTICUS~~

Wilderness Point, Michigan, Sept. 21, 1953

(Same as Sm-40156).

Sm-43523

terrestris
GYMNOFILUS ~~SPICIFICUS~~

Wilderness, Michigan, September 28, 1953

(Same as Sm-40156).

Sm-44204

terrestris
GYMNOPIIUS ~~STICTICUS~~

On conifer debris, Payette Lakes, Idaho, June 26, 1954.

Spores range in size a bit greater than in most other collections: in a given field, 6-9 x 4-5.5 μ , majority about 7.5 x 5 μ . (Otherwise as in Sm-40156).

Sm-44205

terrestris
GYMNOPILUS ~~SPICIFICUS~~

Payette Lakes, Idaho, June 25, 1954

(Same as Sm-40156).

Sm-44239

terrestris
GYMNOPIIUS ~~STICTICUS~~

Payette Lakes, Idaho, June 27, 1954

(Same as Sm-40156).

Sm-44253

Terrestriis
GYMNOPIIUS ~~STICTICUS~~

Payette Lakes, Idaho, June 28, 1954

(Same as Sm-40156).

Sm-44275

Terrestris
GYMNOPIIUS STICTICUS

Payette Lakes, Idaho, June 28, 1954

(Same as Sm-40156).

Sm-44382

terrestris
GYMNOPIIUS ~~SPICIFICUS~~

Payette Lakes, Idaho, June 30, 1954

(Same as Sm-40156).

Sm-44422

terrestris
GYMNOPIIUS STIGTIGUS

Payette Lakes, Idaho, June 30, 1954

(Same as Sm-40156).

Sm-44715

terrestris
GYMNOPIIUS STICTICUS

Brundage Mt., Valley Co., Idaho, July 6, 1954

(Same as Sm-40156).

Sm-45301

Terrestris
GYMNOPIIUS ~~STICTICUS~~

Hell's Canyon Rim, (Idaho ?), July 23, 1954

(Same as Sm-40156).

Sm-46087

terrestris
GYMNOPIIUS ~~SPICIFICUS~~

Payette Lakes, Idaho, August 7, 1956

(Same as SM-40156).

Sm-47369

terrestris
GYMNOPIIUS STICTICUS

Carbon River, MRNP, Washington, September 11, 1954

Label (by Smith) says: viscid. [Sections show the pileus cuticle is a zone of colorless hyphae, but no gelatinization; I would guess ^{it} ~~or~~ ^{in this collection} is not truly viscid. - *Art.*]

(Same as Sm-40156).

Sm-48274

terrestris
GYMNOPIIUS ~~STICTICUS~~

Carbon River, MRNP, Washington, October 1, 1954

(Same as Sm-40156).

Sm-51390

GYMNOPIIUS ^{*terrestris*}
~~STICTICUS~~

On soil, Lizard Head Pass, San Juan Mts., Colo., July 27, 1956

(Same as Sm-40156).

Sm-53121

terrestris
GYMNOPIIUS STICTICUS

On soil, under spruce, Trout Lake, San Juan Mts., Colo.,
July 24, 1956

(Same as Sm-40156).

Sm-53810

terrestris
GYMNOPIIUS STICTICUS

On conifer duff, Priest Lake, Idaho, October 1, 1956

(Same as Sm-40156).

Sm-55186

terrestis
GYMNOPIIUS ~~STICTIGUS~~

PHOTO

On soil, under hemlock and pine, Priest Lake, Idaho,
October 21, 1956.

Smith says: Large cap, up to 10 cm broad. (Same
as Sm-40156).

Sm-58812

terrestris
GYMNOPIIUS ~~STICTIGUS~~

Lake Fork Creek, Payette Lakes, Idaho, July 13, 1958

(Same as Sm-40156).

Sm-59452

terrestris
GYMNOPIIUS ~~STICTICUS~~

Heavens Gate Ridge, 7-Devils Mts, Idaho, August 2, 1958

(Same as Sm-40156).

Sm-65297

GYMNOPIIUS ^{*terrestris*}
~~STICTICUS~~

Brundage Mt., McCall, Idaho, July 9, 1962

(Same as Sm-40156).

Sm-66649

terrestris
GYMNOPIIUS ~~STICTICUS~~

On duff, Huron Mt., June 17, 1963

Smith says: FeSO_4 slowly olive fuscous. (Same as
Sm-40156).

Sm-69705

terrestris
GYMNOPIIUS ~~STICTIGUS~~

On soil, Burgdorf, Idaho, August 25, 1964

(Same as Sm-40156).

Sm-70207

terrestris
GYMNOPIIUS ~~SPICIFICUS~~

Salmon River, Idaho, September 6, 1964

(Same as Sm-40156).

J. Trueblood-74247 *terrestris*
GYMNOPIIUS ~~STICTICUS~~

Under conifers, Payette Lakes, Idaho, July 1, 1958.

Spores 6-7.5 x 4.5-5.5 μ . Same as Sm-40156).

GYMNOPIIUS (FLAMMULA) UNDERWOODII (Pk.) Murr.

On pine log, under bark, leg. L. M. Underwood, Auburn,
Alabama, November 28, 1895.

TYPE

Spores 6-7 x 4-4.5 μ , ellipsoid to subovoid in face view, inequilateral in profile, verruculose, no germ pore, dextrinoid. Basidia 22-28 x 5-6 μ , 4-spored. Pleurocystidia none; cheilocystidia 20-30 x 3-5 μ , flask-shaped or ventricose, capitate to non-capitate, rare and inconspicuous. Gill trama interwoven — undulating. Pileus trama interwoven. Cuticle repent, epicuticular hyphae, forming surface squamules, brown. Clamp connections present. Caulocystidia 33-53 x 4-7 μ , filamentous, clavate to ventricose, as terminal elements of tufts of erect hyphae, rare.

Material extremely hard and difficult to section;
long soaking softened it only slightly.

GYMNOPIIUS (FLAMMULA) UNDERWOODII (Pk.) Murr.

On pine log, under bark, leg. L. M. Underwood, Auburn,
Alabama, November 28, 1895.

TYPE

Spores 6-7 x 4-4.5 μ , ellipsoid to subvoid in face view, inequilateral in profile, verruculose, no germ pore, dextrinoid. Basidia 22-28 x 5-6 μ , 4-spored. Pleurocystidia none; cheilocystidia 20-30 x 3-5 μ , flask-shaped or ventricose, capitate to non-capitate, rare and inconspicuous. Gill trama interwoven -- undulating. Pileus trama interwoven. Cuticle repent, epicuticular hyphae, forming surface squamules, brown. Clamp connections present. Caulocystidia 33-53 x 4-7 μ , filamentous, clavate to ventricose, as terminal elements of tufts of erect hyphae, rare.

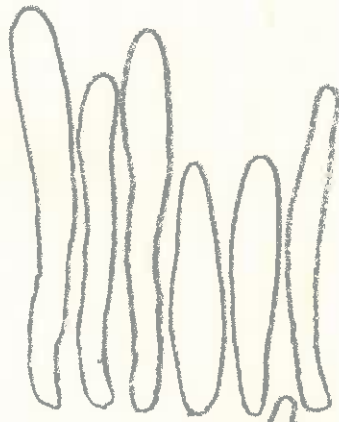
Material extremely hard and difficult to section; long soaking softened it only slightly.

Gymnopilus (Flammula) underwoodii (Pk.) Murr.

Type



Ch - x 1000



Caulo-
x 1000



Spores - x 4000



Styphal tufts on stipe
apex, with associated
caulocystidia (c) - x 1000

GYMNOPIIUS UNDERWOODII (Pk.) Murr.

New York Bot. Garden No. 2834, leg. F. S. Earle, Auburn, Ala.,
Dec. 26, 1899.

Not the Type

Spores 6-8.5 x 4-5 μ , ellipsoid, in face view, anequilateral in profile, wrinkled-rough, no germ pore, ferruginous in KOH, reddish brown in Melzer's reagent. Basidia 22-28 x 5-6 μ , (2)4-spored. Pleurocystidia none; cheilocystidia 22-30 x 3-5 μ , flask-shaped or ventricose, sometimes capitate, rare and inconspicuous. Gill trama subparallel to interwoven, undulating, hyphae 4-10 μ broad. Pileus trama interwoven. Cuticle repent, surface hyphae forming brown squamules; pilocystidia none; caulocystidia present as brown, terminal elements of hyphal tufts, 32-53 x 4-7 μ , cylindric, ventricose, clavate. Clamp connections present.

GYMNOPIIUS UNDERWOODII (Pk.) Murr.

New York Bot. Garden No. 2834, leg. F. S. Earle, Auburn, Ala.,
Dec. 26, 1899.

Not the Type

Spores 6-8.5 x 4-5 μ , ellipsoid, in face view, inequilateral in profile, wrinkled-rough, no germ pore, ferruginous in KOH, reddish brown in Melzer's reagent. Basidia 22-28 x 5-6 μ , (2)4-spored. Pleurocystidia none; cheilocystidia 22-30 x 3-5 μ , flask-shaped or ventricose, sometimes capitate, rare and inconspicuous. Gill trama subparallel to interwoven, undulating, hyphae 4-10 μ broad. Pileus trama interwoven. Cuticle repent, surface hyphae forming brown squamules; pilocystidia none; caulocystidia present as brown, terminal elements of hyphal tufts, 32-53 x 4-7 μ , cylindric, ventricose, clavate. Clamp connections present.

Galerina
GYMNOPIIUS UNICOLOR Murrill

North Amer. Flora 10:202. 1917

Pileus 3-5 cm broad, convex to subexpanded, obtuse, gregarious, not cespitose, surface glabrous, hygrophanous, not viscid, dark-umbrinous, becoming dull-brownish-ochraceous when dry, margin not striate, always decurved.

Lamellae heterophyllous, rather long-decurrent, subdistant, broad, arcuate to subplane, dull-yellow, becoming dull-cinnamon.

Stipe 4-6 cm long, 4-6 mm thick, tough, cylindric, subglabrous, subconcolorous, solid but stuffed with fibers within. Veil brownish, soon evanescent or subannulate.

Spores 7-9 x 4.5-5.5 μ , ellipsoid to subovoid in face view, inequilateral in profile, ^{rough, often calyptrate.} ~~smooth~~ germ-pore present. Basidia 18-28 x 5-6(7) μ , 2-4-spored. Pleurocystidia 50-72 x 8-14 μ , ventricose, a long neck projecting; cheilocystidia 34-48 x 7-14 μ , ventricose more or less capitate, or more rarely subcylindric-capitate. Gill trama subparallel, hyphae 4-10 μ broad. Pileus trama radial, somewhat interwoven. Cuticle a zone of repent, brown hyphae, some more or less loosened, and incrustated. Clamp connections present. Caulocystidia none. Pileus and gill trama yellowish brown in KOH; rusty brown in Melzer's reagent.

Galerina

GYMNOPIIUS UNICOLOR Murr.

(= Galerina)

On rotten log, in swamp, Auburn, Ala., leg. Esther S. Earle,
Jan. 6, 1900

Type

Spores 7-11 x (4)4.5-5.5 μ , ellipsoid to subovoid in face view, inequilateral in profile, warty or wrinkled, often calyptrate, germ-pore present. Basidia 18-28 x 5-6(7) μ , 2-4-spored. Pleurocystidia 50-72 x 8-14 μ , ventricose, a long neck projecting; cheilocystidia 34-48 x 7-14 μ , ventricose more or less capitate, or more rarely subcylindric-capitate. Gill trama subparallel, hyphae 4-10 μ broad. Pileus trama radial, somewhat interwoven. Cuticle a zone of repent, brown hyphae, some more or less loosened, and incrustated. Clamp connections present. Caulocystidia none. Pileus and gill trama yellowish brown in KOH; rusty brown in Melzer's reagent.

GYMNOPIIUS UNICOLOR Murr.

(= Galerina)

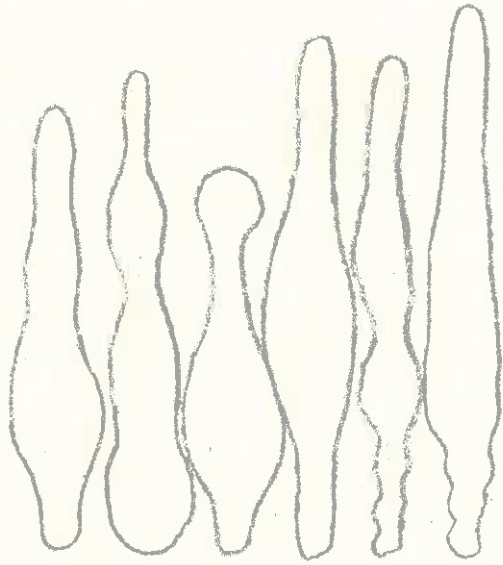
On rotten log, in swamp, Auburn, Ala., leg. Esther S. Earle,
Jan. 6, 1900

Type

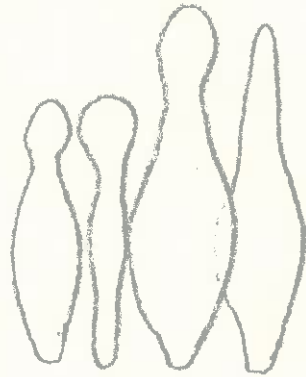
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Gymnopus unicolor Murr.

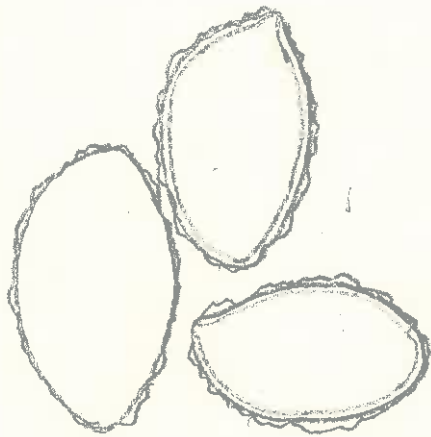
Type = Galerina



Pl - x 1000



Ch - x 1000



Spores - x 4000

GYMNOPIIUS VALIDIPES (Pk.)

In a small excavation, near a farm-house, Cooper's Plains, Steuben Co., N. Y., September.

TYPE

Spores 7.5-10 x 4.5-5(5.5) μ , ellipsoid, more rarely subvoid in face view, slightly inequilateral in profile, verrucose, ferruginous in KOH, a few dextrinoid at once and all dextrinoid after one hour. Basidia 23-28 x 5-7 μ , (2)4-spored. Pleurocystidia 23-28 x 5-7 μ , ventricose, inconspicuous; cheilocystidia 23-30 x 3-7 μ , flask-shaped, capitate or subcapitate. Gill trama of subparallel hyphae, 5-9 μ broad; subhymenium not distinctive. Pileus trama of radial hyphae. Cuticle of repent hyphae, bearing, toward the center, bundles of brown hyphae (scales). Pileocystidia and caulocystidia none.

Cf. junonius and spectabilis.

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In a small excavation, near a farm-house, Cooper's Plains, Steuben Co., N. Y., September.

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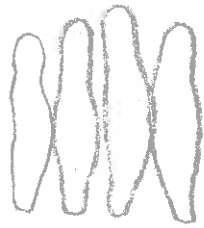
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Cf. junonius and spectabilis.

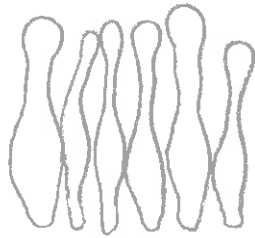
Corticium validipes PK.

= *Gymnopilus validipes* (PK.)

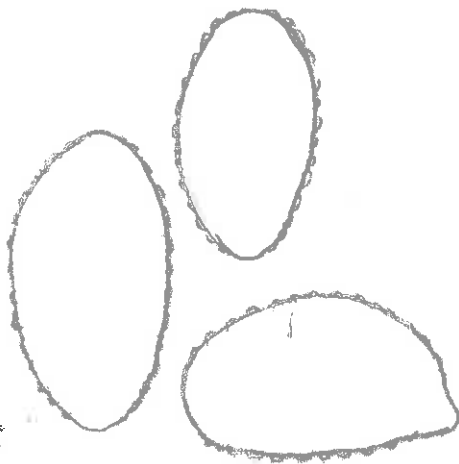
Type



Pl. - x 1000



Ch. - x 1000



Spores - x 4000

PHOLIOTA VENTRICOSA Earle

Dense colony, base of living pine tree, Stanford, Calif.,
leg. C.F. Baker, December 12, 1901.

TYPE

Spores 7.5-9 x 4-5.5 μ , ellipsoid, ovoid, or subamygdaliform in face view, inequilateral in profile, verruculose, no germ pore, with a slight hilum, slightly and slowly dextrinoid. Basidia 23-27 x 6-8 μ , 4-spored. Pleurocystidia 27-31 x 6-7 μ , fusoid-ventricose or flask-shaped, often with a brown pigment; cheilocystidia 26-33 x 5-8 μ , flask-shaped or fusoid-ventricose with a neck, usually more or less capitate. Gill trama subparallel to parallel, hyphae 5-7 μ broad. Pileus trama interwoven. Cuticle of more or less repent hyphae bearing tufts of pallid to brownish hyphae. Clamp connections present.

Harding lists this as a synonym of Gymnopilus junonius; and lists other synonyms including Pholiota spectabilis, P. cerasina, P. lutea, F. magna. Singer lists it as a synonym of G. spectabilis (Fr.) Sing.

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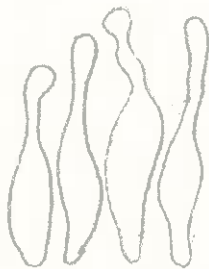
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Pholiota ventricosa Earle

Type



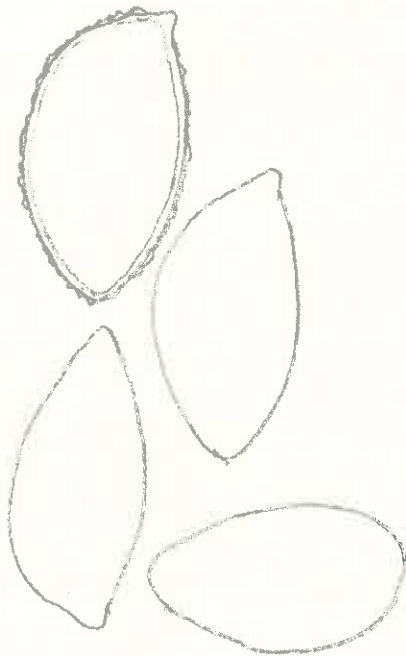
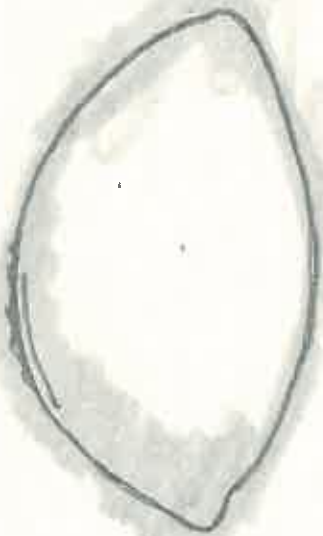
B - x 1000



Ch - x 1000



Basidiole - x 1000



Spores - x 4000

FLAMMULA VINICOLOR Pat.

Coll. Duss, Saint Pierre, Martinique, on dead wood, July
1889, Farlow Herb.

TYPE

Spores (5.5)6.5-8 x (3.5)4-4.5 μ , ellipsoid to sub-
ovoid, truncate from a broad germ pore, smooth, brown
in KOH, yellowish brown in Melzer's reagent. Basidia
unsuitable for study. Pleurocystidia and cheilocystidia
not found. Gill trama undulating subparallel, hyphae 3-5 μ
broad; subhymenium not distinctive. Pileus trama radial.
Cuticle repent, with scattered, low mounds of colorless,
clavate to cylindric pileocystidia 23-32 x 3-6 μ . Clamp
connections none found. Caulocystidia none.

This is a Pholiota (Kuehneromyces)!

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This is a Pholiota (Kuehneromyces).

3-4 centim., transparent, très mince, couvert de stries rouges pulvérulentes, allant du centre à la circonférence. Lames inégales, peu nombreuses, étroites. Stipe long de 2-3 centim. épais de 1 1/2 millim.

Troncs pourris dans les grands bois.

Obs. — Le genre *Heliomyces* est très voisin du genre *Marasmius*; il n'en diffère que par la consistance plus molle de son chapeau. Un certain nombre de *Marasmius* à lames réticulées anastomosées (*Marasmius stenophyllus* Mtg., *Mar. tessellatus* Mtg., etc.), doivent rentrer dans le genre *Heliomyces* et former avec l'*Hel. ptiropus* Lev. une section spéciale (*Dictyoploca* Mtg.)

7. **Lentinus vellereus** Berk. et Curt. *Journ. Soc. Lin.* X p. 331. — Sur différents bois pourris : *Artocarpus incisa*, *Tecoma pentaphylla*, etc. (n^{os} 21 et 64).

Planté utilisée comme aliment dans son jeune âge. Spore 10 × 3-4 μ.

8. **Lentinus Berterii** Fr. *El.*, p. 46. — Sur le bois mort (n^o 3).

Obs. — Les lames sont plus ou moins crénelées sur la tranche et ont les deux faces couvertes de petites aspérités incrustées de calcaire. Ces aspérités sont formées par des touffes d'hyphes fortement accolées qui émergent de la trame en traversant la couche hyménienne; ces productions ne sont pas homologues des cystides et ne sauraient leur être comparées : elles sont caractéristiques du genre *Lentinus* et de son proche voisin le genre *Favolus*. La présence de ces organes pileux n'exclue pas celle de véritables cystides dans l'un et l'autre genre.

Dans le *Lentinus Berterii* les spores sont incolores, lisses, ovoïdes atténuées à la base et mesurent 6-7 × 3 μ.

9. **Lentinus calvescens** Berk. *Dec.*, n^o 536. — Tronc pourris (n^{os} 2 et 54).

Comme dans l'espèce précédente, les lames sont hérissées de touffes pileuses.

10. **Panus eugrammus** (Mtg.). — *Lentinus* Mtg. *Cub.* t. XVII, f. 2. — Sur différents bois tendres (*Spondias Monbin* etc.) (n^o 56).

11. **Schizophyllum commune** Fr. *Syst.*, I, p. 333. — Sur beaucoup de bois pourris, mais surtout sur les bois tendres

12. *Locellina hiatuloides* Pat. n. sp. — Chapeau séparable du stipe, très mince, mou, campanulé puis étalé, mamelonné au centre, ondulé et profondément incisé lobé sur les bords, glabre, luisant, brun fauve, plus foncé vers la partie moyenne, couvert de stries longues et serrées provenant de craquelures de la pellicule; marge droite ou à peine recourbée en dessous. Lames ocracées, minces, molles, serrées, atténuées aux deux extrémités, libres, insérées au pourtour d'un large collarium. Basides à quatre stérigmates; spores ovoïdes, lisses, atténuées à la base, à une seule gouttelette, jaunes d'ocre ($8-10 \times 5 \mu$). Cystides peu nombreuses, saillantes, ventruées, étirées au sommet en un mucron aigu. Stipe central, grêle, blanchâtre, strié sur toute sa longueur, égal, élargi sous le mamelon du chapeau. Anneau nul. Volve blanche, engainante, membraneuse, dressée, laciniée sur les bords, un peu renflée à la base.

Sur du fumier de cheval (n° 23).

Chapeau mesurant 10 centim. de diamètre; lames larges de 6-7 millim., de la couleur de celles du *Galera tener*; stipe long de 10-12 centim., épais de 6 millim.; volve atteignant 5 centim. de hauteur.

Les espèces du genre *Locellina* sont rares et ont peu d'affinités les unes avec les autres: celle qui nous occupe a exactement le port d'un *Hiatula*, son chapeau est également réduit à une pellicule très mince; d'autre part la forme des cystides la rapproche des *Pluteus*, mais ses spores jaunes et sa longue volve la distinguent suffisamment.

13. *Flammula vinicolor* Pat. n. sp. — Chapeau charnu, convexe plan, orbiculaire, lisse, profondément ombiliqué au centre, rouge lie de vin à l'état frais, brun fauve sur le sec. Lames nombreuses, serrées, larges, horizontales, à peine décurrentes, fauves. Spores ovoïdes, lisses, ocracées, mesurant $6-7 \times 3-4 \mu$. Stipe tenace, grêle, cylindrique, strié, brun rougeâtre, plus pâle au sommet.

Fasciculé sur le bois pourri (n° 44).

Chapeau large de 1-2 centim.; stipe épais de 2 millim., long de 3-4 centim.

Espèce voisine du *F. anepsia* Mtg.

14. *Coprinus discipes* Pat. n. sp. — Chapeau mince, con-

Journal de Botanique 3; 339. 1889.

GYMNOPIIUS VIRIDANS Murr.

On conifer log, near Seattle, Wash., Murrill 657, October 20 — November 1, 1911.

TYPE

Spores (6)7-8.5(9.5) x (4)4.5-5 μ , ellipsoid, inequilateral in profile, verruculose, no germ pore, not dextrinoid (at first and after 24 hours, using concentrated NH_4OH , yellow brown in Melzer's reagent). Basidia 20-24 x 6-7 μ , 4-spored. Pleurocystidia none; cheilocystidia 20-26 x 5-7 μ , fusoid-ventricose, neck filiform, capitate or subcapitate. Gill trama subparallel, hyphae 4-10 μ broad; subhymenium not distinctive. Pileus trama of interwoven hyphae. Cuticle of repent, brown, more or less incrustated hyphae. Clamp connections present. Pileocystidia none. Caulocystidia 35-43 x 4-7 μ , as terminal elements of more or less aerial hyphae, cylindrical to flask-shaped, apices at times subcapitate.

Material of the type of G. viridans badly riddled by insects.

GYMNOPIIUS VIRIDANS Murr.

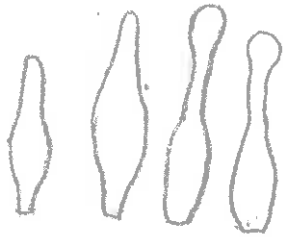
On conifer log, near Seattle, Wash., Murrill 657, October 20 -- November 1, 1911.

TYPE

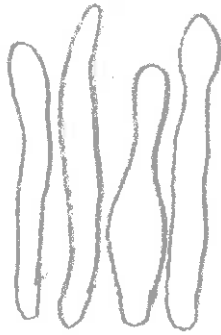
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Gymnopilus vridans Murr.

Type



Ch - x 1000 (after Harding)



Cauls - x 1000

Gymnospilus?

Flammula Weberi Murrill

Murrill's description (Lloydia 8:285. 1945):

"Pileus convex to plane, 4-5.5 cm. broad; surface slimy-viscid, smooth, glabrous, luteous, margin even, entire, concolorous; context thin, water-pallid, odorless, very bitter at once; lamellae sinuate, inserted, close, broad, entire, pallid to pale-isabelline; spores ellipsoid, smooth, uniguttulate, ochraceous, about 7 x 5 μ ; cystidia none; stipe bulbous, stuffed, smooth, white, glabrous, dry, about 6 x 1 cm., bulb onion-shaped, up to 1.7 cm. broad.

"Type collected by G. F. Weber under laurel oaks at Gainesville, Fla., Jan. 16, 1944 (F 22492). A rare species characterized by its luteous, slimy cap; white stem, which is not viscid; and very bitter flesh."

Hebeloma?

FLAMMULA WEBERI Murr.

Under laurel oaks, Gainesville, Fla., leg. G.F. Weber,
January 16, 1944. F 22492.

TYPE

Spores 7-8.5 x 4-5 μ , ellipsoid in face view, inequilateral in profile, verruculose, no germ pore, yellow-brown in KOH, at first yellow-brown in Melzer's reagent. Basidia 25-30(35) x 6-8 μ , 4-spored. Pleurocystidia none; cheilocystidia 18-25 x 6-8 μ , clavate, apices more or less conic, rare. Gill trama subparallel, hyphae 5-10 μ broad. Pileus trama radial. Cuticle a gelatinous zone of slender, colorless hyphae, resting on a brownish hypodermium. Clamp connections present. Caulocystidia none. Pileus and gill trama pale yellowish in KOH; dingy reddish brown in Melzer's reagent.

This is not Gymnopilus; probably an Hebeloma. Harding (note in specimen box, and in thesis) says this is a good Hebeloma. It has ochraceous (not ferruginous) spores, viscid pileus, and grows on soil.

FLAMMULA WEBERI Murr.

Under laurel oaks, Gainesville, Fla., leg. G.F. Weber,
January 16, 1944. F 22492.

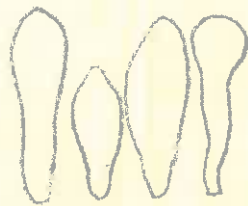
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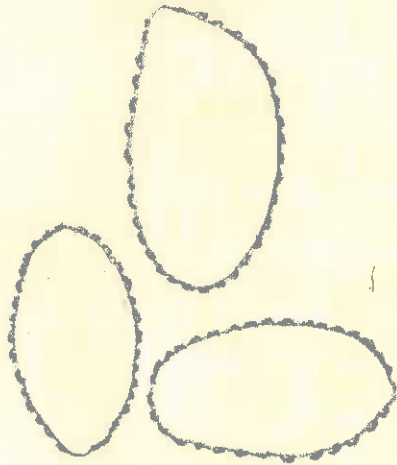
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Flammula weberi Murr.

Type - 722492



Ch - x 1000



Spores - x 4000