



November 2013

## Crepidotus Notebook 3

L. R. Hesler

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CREPIDOTUS MONTANUS sp. nov.

(H-8934)

Pileus 5-10 mm broad, sessile, flabelliform, tawny, glabrous or appearing so, margin striatulate when wet.

Lamellae close, moderately narrow, white, finally brown, edges serrulate.

Spores 5-7.5  $\mu$  in diameter, globose or ovoid, punctate. Basidia 23-27 x 5-6  $\mu$ , 4-spored. Pleurocystidia 27-38 x 5-7  $\mu$ , clavate, appendiculate; cheilocystidia 28-45 x 5-10  $\mu$ , clavate, ventricose, or somewhat flask-shaped. Gill trama undulating-subparallel to slightly interwoven, hyphae 4-7  $\mu$  broad. Pileus trama interwoven. Cuticle of repent hyphae, with scattered to numerous pilocystidia, clavate, ventricose, or fusoid, at times subcapitate, 30-72 x 4-10  $\mu$ . Clamp connections present.

Habit, Habitat, and Distribution - On log, Tennessee, July.

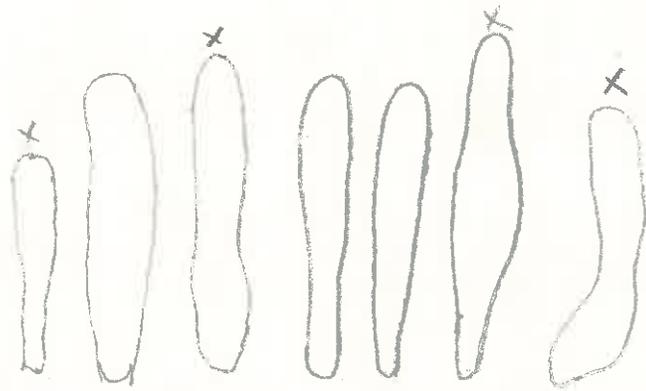
Material Studied - TENNESSEE: Healer 8934, type, along trail from Indian Gap to Chimneys, Great Smoky Mountains National Park, July 26, 1936.

Observations - This is rather close to C. roseus, differing chiefly in color, and also in the form of the pleurocystidia.

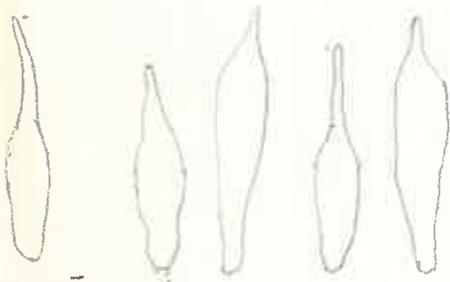
*Crepidotus montanus* sp. nov.  
*Crepidotus* ~~*applanatus* (F.) Kummer~~

No. 8934

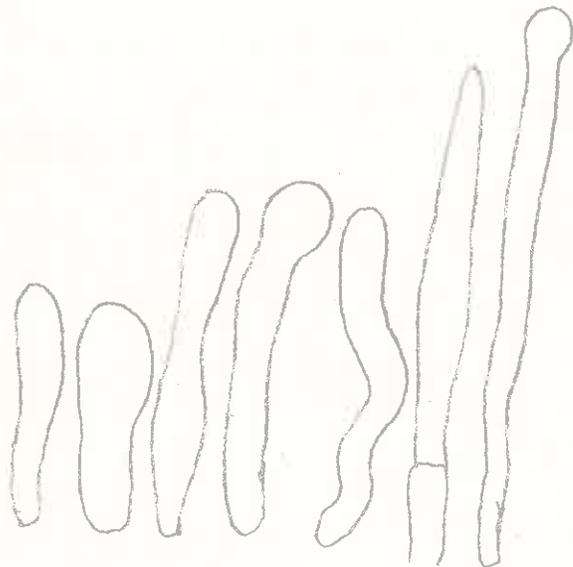
Type



Ch - x 1000



Pl - x 1000



Pilo - x 1000

CREPIDOTUS MONTANUS sp. nov.

(H-8934)

On log, trail, Indian Gap to Chimneys, July 26, 1936.

Pileus 5-10 mm broad, flabelliform, tawny, appearing glabrous, margin striatulate when wet.

Lamellae white, finally brown, close, rather narrow, edges serrulate.

Spores 5-7.5  $\mu$ , globose or ovoid, punctate. Basidia 23-27 x 5-6  $\mu$ , 4-spored. Pleurocystidia 27-38 x 5-7  $\mu$ , clavate, appendiculate; cheilocystidia 28-45 x 5-10  $\mu$ , clavate, ventricose, sub-flaske-shaped. Gill trama undulating subparallel to slightly interwoven, hyphae 4-7  $\mu$  broad. Pileus trama interwoven. Cuticle of repent hyphae, with scattered to numerous pilocystidia, clavate, ventricose, fusoid, cylindrical, at times subcapitate, 30-72 x 4-10  $\mu$ . Clamp connections present.

CLAUDOPUS MULTIFORMIS Murr.

N. A. Flora 10:78. 1910

Not a *Crocodactylus*  
Spore colored red,  
+ no cl.

Pileus 1-2.5 cm. broad, resupinate, white, tomentose.

Lamellae distant, broad, white to red.

Stipe eccentric or wanting, short, villose.

Spores (6.5) 7-8 x 4.5-5  $\mu$ , ellipsoid, smooth. Basidia 24-28 x 6-7  $\mu$ , 2-4-spored. Pleurocystidia and cheilocystidia none. Gill trama of undulating, subparallel, rather short-celled hyphae. Pileus trama radial, interwoven (appearing more or less as pseudoparenchyma in tangential section). Cuticle repent, with more or less erect, slender, colorless hyphae forming a trichodermium. Clamp connections none.

Observations. - The description of microscopic characters above is drawn from a collection from the N. Y. Botanical Garden.

The spores are described as pale red, and are larger than those of C. variabilis. The spores may place it in Phyllotopsis.

(see N. A. Flora 10:78; variabilis given as a synonym)

MELANOTUS MUSAECOLA (B. & C.) Murr. = M. flavolivens (acc)  
Mycologia 10:16. 1918

Agaricus (Crepidotus) musaecola B. & C., Jour. Linn. Soc.  
(Bot.) 10:291. 1868.

Crepidotus musaecola (B. & C.) Sacc., Syll. Fung. 5:883. 1887.

Pileus 4-10 mm broad, attached laterally, or not rarely attached dorsally, white to pale yellowish, surface subglabrous.

Lamellae obscurely fuscous, tinted purplish-violet.

Stipe small, lateral, disappearing (?)

Spores 6-8 x 4.5-5.5  $\mu$ , ellipsoid to ovoid, truncate and with a germ-pore, wall thick (double), the exosporium purplish-black. Pleurocystidia none; cheilocystidia 28-45 x 6-11  $\mu$ , subclavate, bottle-shaped, or ventricose, often with a neck, or subcapitate. Cuticle of repent hyphae, bearing scattered, purplish-brown "setae" which are obclavate, at times septate. Clamp connections present.

Habit, Habitat, and Distribution - On dead plantain leaves near the ground, Cuba.

Material Studied - CUBA: Berkeley & Curtis 86, type, collected by Wright, deposited in Herbarium, Royal Botanic Gardens, Kew.

Observations - The color of the gills and spores, and the germ-pore place this species in Melanotus.

MELANOTUS MUSAECOLA\* (B. & C.) Murr.

Mycologia 10:16. 1918

Agaricus (Crepidotus) musaecola B. & C., Jour. Linn. Soc.  
(Bot.) 10:291. 1868.

Crepidotus musaecola (B. & C.) Sacc., Syll. Fung. 5:883. 1887.

Pileus 4-10 mm broad, attached laterally, or not rarely attached dorsally, white to pale yellowish, surface subglabrous.

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Stipe small, lateral, disappearing (?)

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\* Murrill spells this musicola, Mycologia 10:16, which Dr. Mosey approves.

MELANOTUS MUSAECOLA (B. & C.) Murr.

Mycologia 10:16. 1918

Agaricus (Crepidotus) musaecola B. & C., Jour. Linn. Soc.  
(Bot.) 10:291. 1868.

Crepidotus musaecola (B. & C.) Sacc., Syll. Fung. 5:883. 1887.

(Translation from Pilát, 1950: 227-228)

Pileus 4-10 mm broad, almost pointed (behind?), always laterally attached, not rarely attached dorsally, surface subglabrous, white or sublutescens.

Lamellae close, obscurely brownish, tinted purplish-violaceous.

Stipe small, lateral, inconspicuous.

Spores 8-8.5 x 5.5-5.6  $\mu$ , ellipsoid, fuscous, tinged purplish-violaceous, with a conspicuous germ-pore.

73. A. (CREPIDOTUS) MUSÆCOLA, B. & C. (86.) Primum hemisphaericus stipite centrali, demum galeæformis, pileo tenui albo, stipite brevissimo excentrico lateraliq[ue] pulverulento; lamellis latis adnæxis pallide fuscis vel purpureo-fuscis.

On dead plantain-leaves near the ground. May. Pileus  $\frac{1}{2}$  inch across. Spores purple-brown, obovate.



*Melanotus*

CREPIDOTUS MUSAECOLA (B. & C.) Sacc.

The type, No. 86, Kew Herbarium, from Cuba, collected by Wright.

Spores 6-8 x 4.5-5.5  $\mu$ , ellipsoid to <sup>sub-</sup>ovoid, truncate and with germ-pore, wall thick, double, the exosporium purplish-black. Pleurocystidia none; cheilocystidia 28-45 x ~~4-5 (apex)~~ x 6-11  $\mu$  (below), ventricose, subclavate, bottle-shaped, often with a neck and subcapitate. Cuticle repent, with scattered "setae" which are obclavate, at times septate, purplish-brown.

The gills are dark reddish-brown. The spores have a purplish-brown tint.

Singer places this in Melanotus. But Murrill (Mycologia 10:16. 1918) proposed the new combination M. musicola (B. & C.) Murr. (mis-spelled?).

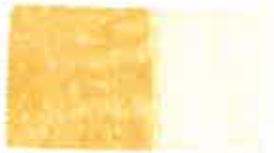
Pilat (1950) gives the spores  $8.5 \times 5.6 \mu$ ; he says ~~The lamellae~~ they are ellipsoid (his drawing shows they are smooth) fuscous, tinted purplish-violaceous, and show a germ-pore. Says the lamellae are obscurely fuscous, tinted purplish-violaceous.

Melanotus - spores strikingly truncate from a well-developed germ pore (Singer, Agar. 2<sup>ed</sup>, p. 661)

Agaricus (Crepidotus) musaeola B. & C.

Jour. Finn. Soc. 10: 291. 1868

Photo of original description:



CREPIDOTUS NEPHRODES (B. & C.) Sacc.

Agaricus (Crepidotus) nephrodes B. & C., Ann. & Mag. Nat. History,  
2nd Ser., 12: 422. 1853.

(From original English descr.)

Pileus 1 in. or more across, gregarious, sometimes imbricated, suborbicular, reniform, or subspathulate, plane, clothed with dingy yellowish-white down, margin inflected. Context thin.

Lamellae pale like the pileus, gradually attenuated behind, ventricose.

Stipe sometimes quite obsolete, but when present very short.

Spores globose, rosy ferruginous.

On damp rotten logs, South Carolina, H. W. Ravenel.

CREPIDOTUS NEPHRODES (B. & C.) Sacc.

Agaricus (Crepidotus) nephrodes B. & C., Ann. & Mag. Nat. History,  
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Spores globose, rosy ferruginous.

On damp rotten logs, South Carolina, H. W. Ravenel.

CREPIDOTUS NEPHRODES (B. & C.) Sacc.

Agaricus nephrodes B. & C.

Type collection, Kew Herbarium; collected by H. W. Ravenel, on dead wood, South Carolina.

TYPE

Spores 5-7  $\mu$ , globose or more rarely subovoid, punctate, wall double, brown. Pleurocystidia none; cheilocystidia 24-45 x 4-9  $\mu$ , clavate, ventricose, or bottle-shaped, at times appendiculate, few and inconspicuous. Gill trama subparallel, hyphae 5-9  $\mu$  broad. Pileus trama interwoven. Cuticle of dingy-brownish, not incrustated, repent hyphae, or erect hyphae, with/hyphae at the base at times incrustated. Clamp connections on the surface and brown hyphae.

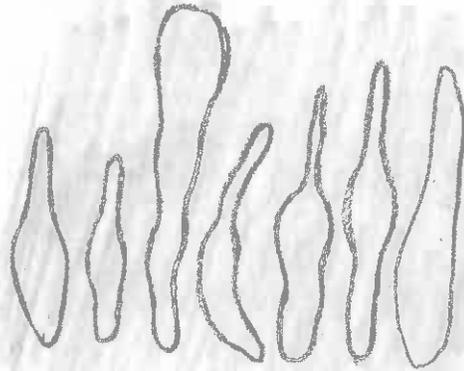
The basidia were unsuitable for study.

Pilat has studied this collection and labelled it C. applanatus. It has distinctly broader and less crowded lamellae and larger spores and incrustated hyphae than in C. applanatus. It has no stipe.

Originally described in Ann. Mag. Nat. Hist. II:12:422. 1853. Singer (Sydowia 7:258) lists several synonyms as follows: malachus, putrigenus, palmularis, leucochrysus, and hygrophanus. He says nothing in his rather full description about brown, at times incrustated, hyphae on the pileus.

*Crepidulus nephrodes* (P. & C.) Bacc.

Type



Ch - x 1000

CREPIDOTUS NEPHRODES (B. & C.) Sacc.

Collection from Cornell Univ. Herb. No. 5528, labelled C. globiger Berk. = C. crocophyllus Berk. = C. dorsalis Fr. = C. applanatus var. = C. alveolus Lasch. Leg. C. V. Smith, det. Bres., coll. on log, Six Mile Creek, Ithaca, N. Y., Nov. 3, 1900.

Spores 5.5-7.5  $\mu$ , globose, punctate. Cuticle with brown, incrustated hyphae. Clamp connections present. Gills medium broad.

If the pileus and gills were at first white, then I would call it C. nephrodes. I do not accept the synonymy above.

There were two packets, same data, same species.

29911            CREPIDOTUS NEPHRODES

On fallen limbs, Norris Dam, Tennessee, July 30, 1967

Pileus white with brown fibrillose scales, dry.

Lamellae whitish, finally brownish, close, medium broad.

Stipe none.

Spores 5-6.5(7)  $\mu$ , globose, minutely punctate.

Pleurocystidia none; cheilocystidia clavate or ventricose, sometimes with a neck. Gill trama subparallel. Pileus trama of loosely interwoven hyphae. Pileus cuticle of colorless repent hyphae, bearing brown, incrustated hyphae often in clusters (scales). Clamps present.

MICHIGAN: Smith 33169, collected by Paul Harding, Cheboygan County, Aug. 20, 1949.

Observations. - The description of microscopic characters above is based on a study of the type. Smith's Michigan collection agrees in its essential characteristics with Murrill's type.

CREPIDOTUS NYSSICOLA (Murr.) Sing.

(U-T No. 21121, part of type)

Spores 5-7 (7.8) x 5-6  $\mu$ , globose to subglobose, frequently ovoid, echinulate, wall medium thick. Basidia 21-32 x 6-7 (8)  $\mu$ , 4-spored. Pleurocystidia none; cheilocystidia <sup>24</sup>~~32~~-61 x 6-10  $\mu$ , cylindric-capitate, clavate, at times more or less strangulate. Gill trama subparallel, hyphae 5-10  $\mu$  broad. Pileus trama: (a) in tangential sections, more or less pseudoparenchymatous; (b) in <sup>radial</sup>~~tangential~~ sections, the hyphae radial and more or less subparallel or slightly interwoven. Cuticle of repent hyphae, with occasional uplifted ends. Clamp connections present on the cuticular hyphae.

*Crepidostus nysicola* (Murr.) Sing.

*Nysicola*

H-No. 21121 - part of type



~~Ch~~ Ch - x 1000

CREPIDOTUS PARVULUS Murr.

TYPE

(Coll. by Earle, No. 334, from Hope Gardens, Jamaica,  
Oct. 20 - Nov. 24, 1902.)

Spores 4-5.3  $\mu$  in diameter, globose, conspicuously punctate or echinulate, pale yellow to pallid in KOH. Basidia 16-20 x 4-6  $\mu$ , 4-spored. Pleurocystidia rare, similar to cheilocystidia; cheilocystidia 24-27 x 4-7  $\mu$ , cylindrical-clavate with irregular knob-like processes over the surface. Gill trama subparallel to slightly interwoven, hyphae 2.5-5  $\mu$  broad. Pileus trama homogeneous, interwoven. Cuticle a trichodermial turf, the hyphae thick-walled, colorless, branched, loosely arranged, 3-6  $\mu$  broad. Clamp connections none on the epicuticular hyphae, rarely at the base of the basidium.

Material of the type is sparse, and barely adequate for critical study.

CREPIDOTUS PARVULUS Murr.

TYPE

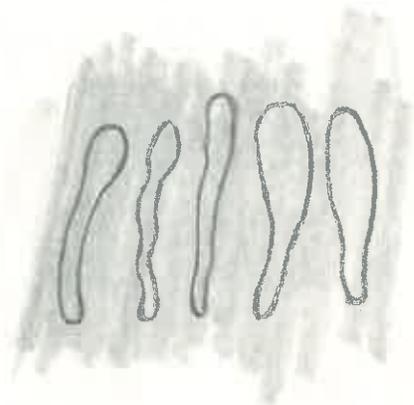
(Coll. by Earle, No. 334, from Hope Gardens, Jamaica,  
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Spores 4-5.3  $\mu$  in diameter, globose, conspicuously punctate or echinulate, pale yellow to pallid in KOH. Basidia 16-20 x 4-6  $\mu$ , 4-spored. Pleurocystidia rare, similar to cheilocystidia; cheilocystidia 24-27 x 4-7  $\mu$ , cylindric-clavate with irregular knob-like processes over the surface. Gill trama subparallel to slightly interwoven, hyphae 2.5-5  $\mu$  broad. Pileus trama homogeneous, interwoven. Cuticle a trichodermial turf, the hyphae thick-walled, colorless, branched, loosely arranged, 3-6  $\mu$  broad. Clamp connections none on the epicuticular hyphae, rarely at the base of the basidium.

Material of the type is sparse, and barely adequate for critical study.

*Gegidotus parvulus* Murr.

Type



Ch - x 1000

CREPIDOTUS PAXILLOIDES Sing.

*Filosa* 22:594. 1951.

Paxillus reniformis Berk. & Rav. apud Berk. & Curt., Ann. & Mag. Nat. Hist. II:12:424. 1853.

Crepidotus reniformis (B. & Rav. apud B. & C.) Singer, Farlowia 2:544. 1946. (Non C. reniformis Velenovsky, České houby, p. 556. 1921.)

Pileus 2.5-7.5 cm broad, pale brown, reniform, densely tomentose to fibrillose-scaly; subimbricated.

Lamellae whitish, at length subferruginous by the spores, very broad, thin, close.

Spores 7.5-9(10) x 5-6  $\mu$ , ellipsoid or ovoid in face view, slightly inequilateral and subreniform in profile, distinctly punctate, pale brown in 2% KOH. Pleurocystidia none; cheilocystidia 32-36 x 5-6  $\mu$ , ventricose to slender bottle-shaped. Pileus trama interwoven. Cuticle of repent hyphae, bearing more or less erect, brownish hyphae, singly or in clusters, and more or less clavate pilocystidia, 40-80 x 6-10  $\mu$ . Clamp connections present.

Habit, Habitat, and Distribution - On oak rail, North Carolina.

Material Studied - NORTH CAROLINA: Berkeley 1538, type from Sulphur Spring, collected by H. W. Ravenel, type at Royal Botanic Garden, Kew.

Observations - The description of microscopic characters is based on a study of the type. The subreniform spores are distinctive.

CREPIDOTUS PAXILLOIDES Sing.

Paxillus reniformis Berk. & Rav. apud Berk. & Curt., Ann. & Mag. Nat. Hist. II:12:424. 1853.

Crepidotus reniformis (B. & Rav. apud B. & C.) Singer, Farlowia 2:544. 1946. (Non C. reniformis Velenovsky, Ceske houby, p. 556. 1921.)

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Lamellae whitish, at length subferruginous by the spores, very broad, thin, close.

Spores 7.5-9(10) x 5-6  $\mu$ , ellipsoid or ovoid in face view, slightly inequilateral and subreniform in profile, distinctly punctate, pale brown in 2% KOH. Pleurocystidia none; cheilocystidia 32-36 x 5-6  $\mu$ , ventricose to slender bottle-shaped. Pileus trama interwoven. Cuticle of repent hyphae, bearing more or less erect, brownish hyphae, singly or in clusters, and more or less clavate pilocystidia, 40-80 x 6-10  $\mu$ . Clamp connections present.

Habit, Habitat, and Distribution - On oak rail, North Carolina.

Material Studied - NORTH CAROLINA: Berkeley 1538, type from Sulphur Spring, collected by H. W. Ravenel, type at Royal Botanic Garden, Kew.

Observations - The description of microscopic characters is based on a study of the type. The subreniform spores are distinctive.

Agaricus (Crepidotus) pecten B. + C.

Ann. + Mag. Nat. Hist. III: 4: 291. 1859.

(Photo of original description)

292 Rev. M. J. Berkeley and Rev. M. A. Curtis on new

minute clavate hairs; spores subelliptic, pale ochre,  $\frac{1}{8000}$  -  $\frac{1}{3500}$   
inch long.

Looks at first like a minute *Schizophyllum*.

CREPIDOTUS PECTEN (B. & C.) Sacc.

Type collection, from North Carolina, Kew Herbarium, No. 4991. (NOTE: the label says incorrectly that it is from South Carolina.)

TYPE

Spores 6.8-8 x 5.3-6  $\mu$ , more or less ovoid or more rarely ellipsoid in front view, very slightly inequilateral in profile, smooth, no germ-pore, thick (double) walled, brown in 2% KOH. Pleurocystidia none; cheilocystidia 27-63 x 5-8  $\mu$ , clavate, often subcapitate, in conspicuous clusters. Gill trama subparallel. Pileus trama interwoven. Cuticle of repent hyphae, with more or less erect, colorless, short hyphae. Clamp connections present on the hyphae of the epicutis and those of the basal tomentum, and at the base of some of the cheilocystidia.

The gills are broad, moderately close to subdistant, the edges white-fimbriate, and the pileus brownish and slightly pubescent (under lens).

Pilat (1950) gives the spores as 9-9.3 x 6.5-7  $\mu$ , globose-ovoid, smooth, without a germ-pore.

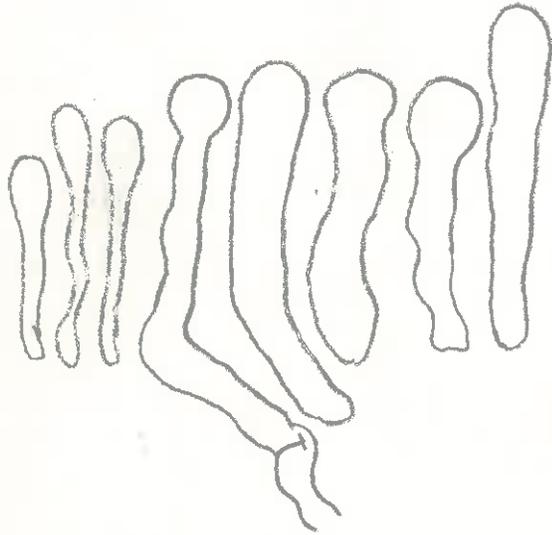
81. *A. (Crepidotus) pecten*, B. & C. Pusillus; pileo pectiniformi crenato-sulcato tomentoso e resupinato reflexo; lamellis latiusculis umbrinis. Curt. no. 4991. On dead branches Upper Carolina, M. A. Curtis.

Pileus 2 lines across, ochraceous, flabellate, strongly sulcate and crenate, tomentose, attached by a little white down; sterigmata none; gills moderately broad, umber; margin fringed with

19\*

p. 291

*Crepidotus pecten* (B+C) Jace  
Type



Ch - x 1000

CREPIDOTUS PECTEN (B. & C.) Sacc.

Syll. Fung. 5:885. 1887.

Agaricus (Crepidotus) pecten B. & C., Ann. Mag. Nat. Hist.  
III:4:291. 1859.

Pileus 4 mm broad, sessile, r supinate to reflexed, fabeliform, ochraceous, tomentose, white-downy around point of attachment, margin crenate-sulcate. Context white.

Lamellae medium broad, moderately close to subdistant, umbrinous at maturity, edged white fimbriate.

Spores 6.8-8 x 5.3-6  $\mu$ , more or less ovoid or more rarely ellipsoid in front view, very slightly ineuilateral in profile, smooth, no germ-pore, thick (double) walled, brown in 2% KOH. Basidia 18-22 x 4.5-6  $\mu$ . Pleurocystidia none; cheilocystidia 27-63 x 5-8  $\mu$ , clavate, often subcapitate, in conspicuous clusters. Gill trama subparallel. Pileus trama interwoven. Cuticle of repent hyphae, with more or less erect colorless, short hyphae. Clamp connections present on the epicuticular hyphae and at the base of some of the cheilocystidia.

The description of the microscopic characters above is based on a study of the type.

GREPIDOTUS PRAELATIFOLIUS Murr.

Bull. Torrey Bot. Club 67:230. 1940.

Pileus 1-2 mm broad, sessile, dimidiate or conchate to resupinate, imbricate, often laterally confluent, white, unchanging, with long white delicate hairs, margin even. Context white, membranous, becoming inconspicuous at maturity.

Lamellae very few, very broad, pallid to fulvous, becoming folded and irregular with age.

Spores 4.5-6  $\mu$ , globose or ovoid, punctate, brownish in 2% KOH. Basidia 16-22 x 6-7  $\mu$ , 4-spored. Pleurocystidia none; cheilocystidia 32-48 x 4-9  $\mu$ , cylindric, or more often obclavate to flask-shaped, rarely fusiform. Gill trama of subparallel-hyphae, 3-6  $\mu$  broad. Cuticle of repent hyphae, often bearing more or less erect, long, loosely tangled hyphae (2-3  $\mu$  broad), forming a turf. Clamp connections present.

Habit, Habitat, and Distribution - On magnolia log, Florida, September.

Material Studied - FLORIDA: Merrill F18107, the type, collected by A. S. Rhoads, on magnolia log, Gainesville, Sept. 8, 1938.

Observations - The description of microscopic characters above is based on a study of the type. As Merrill (1940) points out, the tiny caps are little more than tufts of hairs holding the few large gills in position. It differs from G. latifolius chiefly in its cheilocystidia.

CREPIDOTUS PRAELATIFOLIUS Murr.

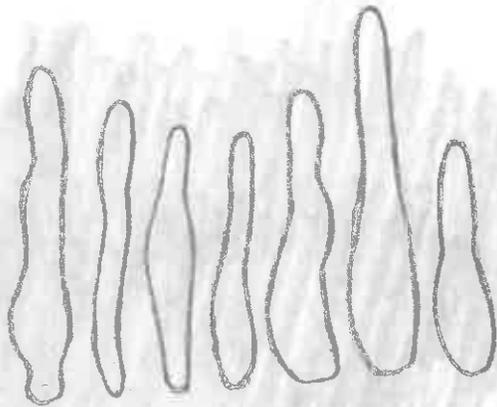
Part of Type, U-T No. 16140

Spores 4.5-6 x 4.5-6  $\mu$ , globose or ovoid, ~~smooth~~ punctate, brownish under 'scope. Basidia 16-22 x 6-7  $\mu$ , 4-spored. Pleurocystidia none; cheilocystidia 32-48 x 4-9  $\mu$ , cylindric, or more often obclavate to flask-shaped, rarely fusiform. Gill trama of narrow, subparallel hyphae. Cuticle a cutis, often bearing more or less erect, <sup>long,</sup> loosely tangled hyphae (2-~~2.5~~<sup>3</sup>  $\mu$  broad), at times approaching a trichodermium. Clamp connections on the epicuticular hyphae.

The cheilocystidia differ in shape from those of C. latifolius (U-T No. 12270), and the Lloyd collection (betatype).

Crepidotus praelatifolius Murr.

Part of Type (U-T No. 16140)



Ch - x 1000

CREPIDOTUS PUBERULUS Pk.

Type

(coll. by McClatchie, Compton, Calif., <sup>on wood,</sup> March 18, 1897)

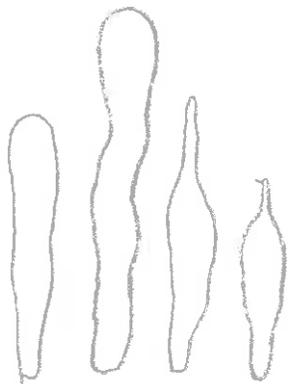
Spores 8-10 x 5-6  $\mu$ , ellipsoid, smooth, <sup>with germ-pore,</sup> brown or slightly yellowish-brown. Basidia 13-22 x 4-6  $\mu$ , 1-2-4-spored. Pleurocystidia 26-31 x 6-7  $\mu$ , (half-way up the gill) more or less fusoid to clavate-appendiculate, rare; cheilocystidia 26-48 x 6-7  $\mu$ , cylindric or subclavate to clavate-appendiculate, not abundant. Gill trama subparallel. Pileus trama interwoven. Cuticle a cutis of repent, brown hyphae bearing erect, scattered cylindric to subnodulose colorless (rarely slightly fuscous) hyphae (the pubescence)—scarcely a trichodermium. Clamp connections on the epicuticular and pileus-trama hyphae.

Singer (Lilloa 13:84-85) says this is a Pleuroflammula, and proposes (p. 85) P. puberula (Pk.) Sing.

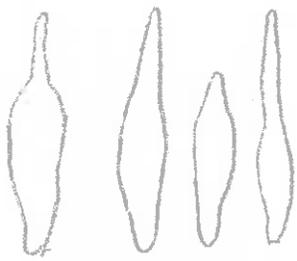
Pleuroflammula differs from Crepidotus in the presence, in most species, of a veil, and in the constant absence of gelatinized layers and the presence of clamp connections (Singer: Agar. 2nd Edition, p. 560).

The type is sparse; I found only one carpophore.

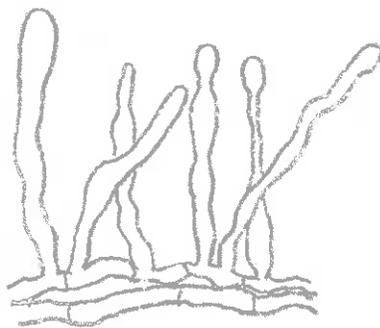
*Cepidotus puberulus* R.  
Type



Ch - x 1000



Pl - x 1000



Epicuticular Hyphae - x 1000  
(constituting the pubescence  
on the leaves)

GREPIDOTUS PUBESCENS Bres. sensu Kühn, & Romagn.

(Bas-983; H-26104)

Leg. & det., C. Bas, on dead leaves and twigs in deciduous woods,  
Holland, Dec. 8, 1955.

Pileus up to 10 mm broad, white, minutely densely felted.

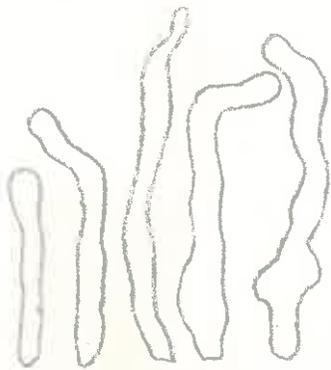
Lamellae white at first, becoming yellowish (yellow in young gills of dried pilei), then pale ochraceous brown, without pinkish tinge, close or nearly subdistant, medium broad.

Stipe none, or temporary, small (more or less 0.5 mm long).

Spores (5.5)6-8(9) x 2.5-3.5(4)  $\mu$ , often in 2's, 3's, or 4's, more or less lanceolate-fusoid in profile, slightly allantoid in side view, smooth, colorless in 2% KOH. Basidia 23-27 x 4-6  $\mu$ , 4-spored. Pleurocystidia none; cheilocystidia 26-45 x 3-7  $\mu$ , filamentous, somewhat flexuous, basal portion at times knobbed or slightly swollen. Gill trama slightly interwoven. Pileus trama interwoven. Cuticle differentiated, the surface bearing an interwoven turf of colorless, narrow (2.5-5  $\mu$ ) hyphae. Clamp connections absent.

Apparently, Sm-55561 is the same as this species.

*Ovipidatus pubescens* Bres. sensu K. + R.  
(from Bas, H-26104)



ch - x 1000

Agaricus (Crepidotus) putrigena B. & C.

Ann. & Mag. Nat. Hist. III: 4: 292. 1859.

(Photo. of original description)

82. *A. (Crepidotus) putrigena*, B. & C. Imbricatus; pileo subreniformi, albido tomentoso; margine striato; lamellis ex albido ferrugineis. Curt. no. 2566. On damp rotten logs, Dec., Santee Canal, South Carolina, H. W. Ravenel.

Densely imbricated; pileus  $\frac{1}{2}$ - $\frac{3}{4}$  inch or more across, subreniform, dirty white, tomentose, clothed with thicker white down at the point of attachment; margin slightly striate; stem none; gills broad, at first dirty white, then ferruginous from the spores; spores nearly globose,  $\frac{1}{3500}$  inch in diameter.

This is at once distinguished, without other marks, by the subglobose spores resembling those of *A. malachius* and *nephrodes*.

If this is the same as an Agaric sent me by Mr. Ravenel, which agrees in the spores, it attains much larger dimensions.

CREPIDOTUS PUTRIGENUS (B. & C.) Sacc.

Type, No. 2566, collected <sup>on rotten logs, Dec.</sup> by Ravenel, <sup>Santee Canal,</sup>  
South Carolina, Kew Herb.

Spores 5.5-6.2 x 4.3-5.5  $\mu$ , globose or subglobose, many ovoid, punctate, brownish, wall medium thick. Pleurocystidia none; cheilocystidia not found (material in poor condition). Gill trama subparallel, hyphae 3-6  $\mu$  broad. Pileus trama interwoven. Cuticle repent, with scattered, more or less erect hyphae. Clamp connections none.

A note on the packet, 15.IX.1948, by Pilat, says "Crepidotus applanatus (Pers. ex Fr.) Quel".

The gills are broad, and it seems near nephrodes.

Singer (1947) says it is a form of nephrodes but the latter has clamp connections!

Pilat (1950) says it is certainly identical with C. applanatus.

*Crepidotus putrigenus*

35565



ch x 1000

39031            CREPIDOTUS PUTRIGENUS (B. and C.) Sacc.

On fir log, Clingmans Dome, Sept. 13, 1973.

Pileus white, sessile, glabrous, tomentose at point of attachment, even. Context whitish, fleshy; odor and taste not distinctive. Lamellae radiating, white then pale brown, fragile, close, rather narrow, lamellulae ± alternating.

Stipe none.

Spores 5-7  $\mu$ , globose, punctate, brownish.

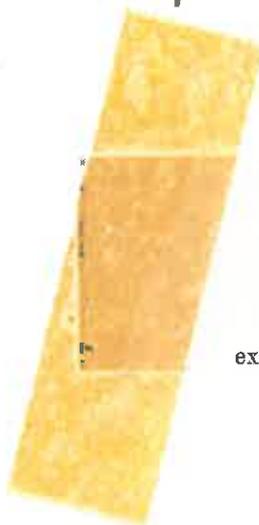
Pl none; ch ± clavate. Pileus cuticle repent, dry.

Clamps none.

Agaricus (Crepidotus) pyrrhus B & C.

Jour. Finn. Soc. 10: 291. 1868

Photo of original description :



72. A. (CREPIDOTUS) PYRRHUS, B & C. (38.) Pileo conchiformi sessili glabro rufo; lamellis latis concoloribus; sporis ferrugineis echinulatis.

On dead wood. Pileus  $\frac{1}{3}$ -1 inch across;  $\frac{1}{3}$ - $\frac{1}{2}$  inch long.

Var. sporis laevibus (38 A, 59), LEIDSPORA.

On logs. August. There appears to be no assignable difference except in the spores, as far as regards the dried specimens.



*C. substipitatus*  
+ *C. laceratus*

PYRRHOGLOSSUM PYRRHUS (Berk. & Curt.) Sing.

Mycologia 36:367. 1944  
*Agaricus (Crepidotus) pyrrhus* Berk. & Curt., Jour. Fim. Soc. 10: 291. 1868.  
Crepidotus substipitatus Murr., Mycologia 5:31. 1913.

Pileus about 1 cm. broad, orbicular-reniform, expanded, dull-ochraceous, moist, subglabrous, margin not striate. Context thin, soft, very fragile when dry.

Lamellae adnexed, ochraceous to dull-cinnamon, subcrowded, rather broad, ventricose.

Stipe 4-8 mm. x 1 mm., eccentric, curved, dark-reddish-brown, glabrous, shining, cylindric.

Spores 4.5-5.5 x 3.5-4  $\mu$ , ellipsoid to ovoid, conspicuously warty, without germ-pore, rusty brown in 2% KOH. Basidia 14-18 x 5-6  $\mu$ , 4-spored.

Habit, habitat, and distribution. - On fallen dead twigs, Cuba, March.

Material studied. - CUBA: Underwood & Earle 1236, the type of Crepidotus substipitatus Murr., Baracoa, Mch. 1903.

Observations. - The description of microscopic characters above is based on a study of the type of C. substipitatus Murr. The material is sparse, and was found to be inadequate for sectioning.

Singer (1947) says that C. substipitatus Murr. has the same characters as Pyrrhoglossum pyrrhus (B. & C.) Sing.

FYRRHOGLOSSUM FYRRHUS (B. & C.) Sing.

Mycologia 36:367. 1944

- Agaricus pyrrhus Berk. & Curt., Jour. Linn. Soc. 10:291. 1868.  
Orepidotus pyrrhus (B. & C.) Sacc., Syll. Fung. 5:879. 1887.  
Orepidotus laceratus Pat., Bull. Soc. Myc. France 18:173. 1902.  
Orepidotus substipitatus Murr., Mycologia 5:31. 1913.

Pileus 1-3 cm broad, flabelliform, semiorbicular, to conchate, ochraceous to rufous, glabrous or subglabrous, margin even. Context thin, fragile.

Lamellae close or crowded, broad, ventricose, concolorous to pileus.

Stipe absent, or if present 4-8 mm x 1 mm, curved, eccentric, reddish-brown, glabrous.

Spores 4-5.5 x 3-4.5  $\mu$ , ellipsoid or ovoid, conspicuously warty, no germ-pore, dark rusty-brown in 2% KOH. Basidia 14-18 x 5-6  $\mu$ , 4-spored. Pleurocystidia none; cheilocystidia 25-42 x 4-8  $\mu$ , cylindrical and often capitate, or flask-shaped with a neck. Gill trama undulating-subparallel, hyphae 2-5  $\mu$  broad. Pileus trama interwoven. Cuticle of repent hyphae, bearing occasional, erect, colorless hyphae. Clamp connections present.

Habit, Habitat, and Distribution - On dead wood, Cuba and Guadeloupe.

Materials Studied - CUBA: Berkeley and Curtis 38, type of Agaricus pyrrhus, collected by C. Wright, deposited at Kew; Merrill 1236, type of Orepidotus substipitatus, collected by Underwood &

Earle, Baracoa, March, 1903, deposited at New York Botanical Garden; GUADELOUPE: Patouillard, type of Grepidotus laceratus, 1886, deposited at Farlow Herbarium.

Observations - The warty spores places this species in the genus Pyrrhoglossum, as proposed by Singer (1944). The description of microscopic characters is based on a study of the type of P. pyrrhus. Pilat (1950) reports the spores of the type of P. pyrrhus to be <sup>larger</sup> 8-8.5 x 5.6-5.8  $\mu$ ) than we observed.

CREPIDOTUS PYRRHUS (Berk. & Curt.) Sacc.

Syll. Fung. 5:879. 1887

(Crepidotus)  
Agaricus pyrrhus Berk. & Curt., Jour. Linn. Soc. 10:291. 1868.

Pileus 1-3 cm. broad, sessile, conchiform, rufous, glabrous.

Lamellae broad, close, concolorous.

Stipe none.

Spores 4.7-5.5 x 4-4.5  $\mu$ , ellipsoid to ovoid, warty (verruculose), rusty brown. Pleurocystidia none; cheilocystidia 25-42 x 2-4 (apex) x 4-8  $\mu$  (base), bottle-shaped, few. Gill trama undulating subparallel, hyphae 3-5  $\mu$  broad. Pileus trama interwoven. Cuticle repent, with only an occasional colorless, more or less erect hyphae. Clamp connections on the epicuticular hyphae.

Observations. - The description of microscopic characters above is based on a study of the type.

Singer (Mycologia 36:367. 1944) proposed that this species be the type of a new genus, Pyrrhoglossum. He says (1947) that C. laceratus Pat. and C. substipitatus are identical with C. pyrrhus.

Pyrrhoglossum  
spores warty

CREPIDOTUS PYRRHUS (B. & C.) Sacc. = *laceratus*

No. 38. A. Crepidotus pyrrhus, coll. by C. Wright, Cuba, specimen from Kew Herb.

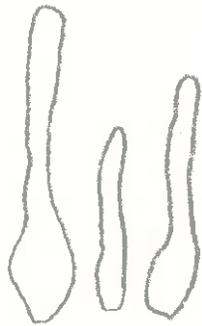
Spores 4.7-5.5 x 4-4.5  $\mu$ , ellipsoid to ovoid, warty (verruculose), rusty brown. Pleurocystidia none; cheilocystidia 25-42 x 2-4 (apex) x 4-8  $\mu$  (base), bottle-shaped, few. Gill trama undulating subparallel, hyphae 3-5  $\mu$  broad. Pileus trama interwoven. Cuticle repent, with only an occasional colorless, more or less erect hyphae. Clamp connections on the epicuticular hyphae.

Singer (1947) says he has published on the type in Mycologia 36:367. 1944, where it was proposed as the type species of a new genus, Pyrrhoglossum. He also says (1947) that Crepidotus laceratus Pat. is identical.

*Fanellae close, broad.*

*Crepidotus pyrochus* (B+C) Sacc.

No 38, coll. C. Wright, Cuba,  
Kew Herb.



Ch - x 1000

CREPIDOTUS SUBSTIPITATUS Murr.

Type

(Coll. by Underwood & Earle, No. 1236, base of El Yunque Mt., Baracoa, Cuba, March, 1903.)

Spores 4.5-5.5 x 3.5-4  $\mu$ , ellipsoid to ovoid, conspicuously warty, without germ-pore, rusty brown in 2% KOH. Basidia 14-18 x 5-6  $\mu$ , 4-spored.

The material is inadequate (sparse) for sectioning.

Singer (Lilloa 13:85) says it has the same characters as Pyrrhoglossum pyrrhus (Berk. & Curt.) Sing.

CREPIDOTUS QUITENSIS Pat. var. PHILIPPINENSIS

(Type (?): Patouillard Herbarium from Farlow Herb., No. 2124, collected by C. G. Baker, Los Banos, Philippines, Dec. 1, 1913, on dead trunks of Leucanena glauca). (This is on sheet No. 4010 with another collection labelled C. quitensis Pat. See next page.)

Spores 5-6 (7) x 5.3-5.7 (7)  $\mu$ , globose or <sup>slightly</sup> subglobose, conspicuously punctate, usually appearing finely verruculose. Basidia 16-20 x 6-7  $\mu$ , 2-4-spored. Pleurocystidia none; cheilocystidia 26-36 x 6-10  $\mu$ , ventricose or irregularly clavate, at times sub-capitate or more often with a slight neck. Gill trama (not observed). Cuticle a trichodermium, the hyphae colorless, thick-walled, somewhat branched, 3-7  $\mu$  broad. Clamp connections on the epicuticular hyphae.

~~This <sup>may</sup> seem to be the same as C. parvulus Murr. The finely but conspicuously verrucose spores and the characteristic trichodermial hyphae strengthen the resemblance. The spores of C. quitensis are slightly larger than in C. parvulus.~~

Singer says parvulus is a synonym; but that species lacks clamps.

CREPIDOTUS QUITENSIS Pat.

Bull. Soc. Myc. France 1893: 126

Pileus 1-6 mm. broad, sessile, resupinate to reflexed, semiorbicular, reniform, to conchate, at first white then brown, margin fuscous, floccose-puberulent, villose at the point of attachment. Context thin.

Lamellae narrow, close, radiating, fuscous-brown.

Spores 5-6(7) $\mu$  in diameter, globose or slightly subglobose, conspicuously punctate, usually appearing verruculose. Basidia 16-20 x 6-7 $\mu$ , 2-4-spored. Pleurocystidia none; cheilocystidia 26-36 x 6-10 $\mu$ , irregularly clavate or ventricose, at times subcapitate or with a slight neck. Cuticle of repent hyphae, bearing a turf of colorless, thick-walled, branched hyphae, 3-7 $\mu$  broad. Clamp connections present.

Habit, Habitat, and Distribution - Ecuador, February.

Materials Studied - ~~EMERSON~~ ECUADOR; Patouillard, type, collected by Lagerheim, near Quito, Feb., 1892; type deposited at Harvard University.

Observations - The notes on microscopic characters above are drawn from a study of the type. We have found no report of it from North America, but since it might occur in southern Florida or in the West Indies, we include it here. Its larger spores and distant gills separate it from applanatus. Its gill-spacing and floccose-puberulent pileus distinguish it from malachius.

CREPIDOTUS QUITENSIS Pat. Type?

(Patouillard collection, Farlow Herb., collected by Lagerheim, between Quito and Seminario mayor, February 1892.) This is probably the type. It is on sheet No. 4010 with another collection: Crepidotus quitensis var. philippinensis. The two collections are the same species.

The material is sparse, but it agrees with that in the packet labelled C. quitensis var. philippinensis. See notes on this.

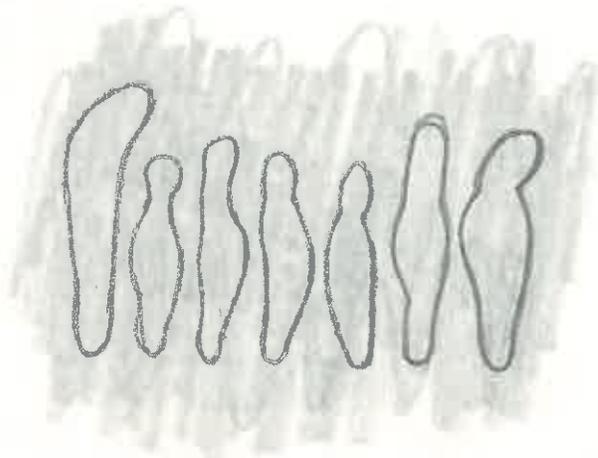
January 21, 1963

  
L.R. Hesler

Crepidotus gutensis Pat.

var. philippinensis

Type



Ch - x 1000

CREPIDOTUS RALFSII (B. & Br.) Sacc.

Syll. Fung. 5:881. 1887

Agaricus (Crepidotus) ralfsii B. & Br., Ann. Mag. Nat. Hist.  
ser. 5, 12:no.2008. 1883.

Pileus 3-5 mm broad, ochraceous, pallid to pale-brownish-fibrillose, margin even, incurved.

Lamellae brownish, broad, close, edges white fimbriate.

Spores 7-8(9) x 4.5-5(5.5)  $\mu$ , ellipsoid, slightly inequilateral in profile, smooth. Basidia 22-26 x 6-8  $\mu$ , 4-spored (rarely 2-spored). Pleurocystidia none; cheilocystidia 30-48 x 5-7  $\mu$ , fusoid or subventricose, at times slightly flexuous and constricted. Gill trama slightly interwoven, hyphae 3-5  $\mu$  broad. Pileus trama interwoven. Cuticle not sharply differentiated, the hyphae of the outer (upper) half or more of the trama somewhat gelatinous, the surface with both scattered and clustered (tufts) of pale fuscous hyphae, a few of the repent hyphae obscurely incrusted, 3-8  $\mu$  broad, the terminal portion of many hyphae as pilocystidia which more or less resemble the cheilocystidia. Clamp connections none; septa few.

Habit, Habitat, and Distribution - On wood, England.

Material Studied - ENGLAND (Penzance): Type, from Kew Herbarium.

Observations - This is near C. sububer sp. nov. (unpublished), but differs in its lack of gelatinous gill edges, in its cheilocystidia, its broad, close gills. It appears to be a good species.

Material of the type is not abundant, but it is in good condition.

Pilat (1950) interpreted this species to be a juvenile form of Crepidotus mollis.

CREPIDOTUS RALFSII (B. & Br.) Sacc.

Syll. Fung. 5:881. 1887

Agaricus (Crepidotus) ralfsii B. & Br., Ann. Mag. Nat. Hist.  
ser. 5, 12:no.2008. 1883.

Pileus 3-5 mm broad, ochraceous, pallid to pale-brownish-fibrillose, margin even, incurved.

Lamellae brownish, broad, close, edges white fimbriate.

Spores 7-8(9) x 4.5-5(5.5)  $\mu$ , ellipsoid, slightly inequilateral in profile, smooth. Basidia 22-26 x 6-8  $\mu$ , 4-spored (rarely 2-spored). Pleurocystidia none; cheilocystidia 30-48 x 5-7  $\mu$ , fusoid or subventricose, at times slightly flexuous and constricted. Gill trama slightly interwoven, hyphae 3-5  $\mu$  broad. Pileus trama interwoven. Cuticle not sharply differentiated, the hyphae of the outer (upper) half or more of the trama somewhat gelatinous, the surface with both scattered and clustered (tufts) of pale fuscous hyphae, a few of the repent hyphae obscurely incrusted, 3-8  $\mu$  broad, the terminal portion of many hyphae as pilocystidia which more or less resemble the cheilocystidia. Clamp connections none; septa few.

Habit, Habitat, and Distribution - On wood, England.

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Material of the type is not abundant, but it is in good condition.

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CREPIDOTUS RALFSII (B. & Br.) Sacc.

Notes on the Type

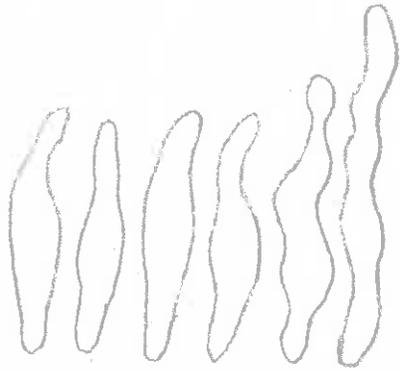
Spores 7-8(9) x 4.5-5(5.5)  $\mu$ , ellipsoid, slightly inequilateral in profile, smooth. Basidia 22-26 x 6-8  $\mu$ , 4-spored (rarely 2-spored). Pleurocystidia none; cheilocystidia 30-48 x 5-7  $\mu$ , fusoid or subventricose, at times slightly flexuous and constricted. Gill trama slightly interwoven, hyphae 3-5  $\mu$  broad. Pileus trama interwoven. Cuticle not sharply differentiated, the hyphae of the outer (upper) half or more of the trama somewhat gelatinous, the surface with both scattered and clustered (tufts) of pale fuscous hyphae, a few of the repent hyphae obscurely incrusted, 3-8  $\mu$  broad, the terminal portion of many hyphae as pilocystidia which more or less resemble the cheilocystidia. Clamp connections none; septa few.

This appears to be a good species.

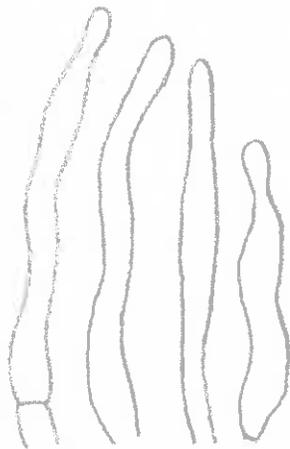
L. R. Hesler

*Grepidotus ralfsii* (B. + Br.) Jacc.

Type



Ch - x 1000



Pils - x 1000

*Crepidotus paxilloides* Sing.

CREPIDOTUS RENIFORMIS (Berk. & Rav. apud B. & C.) Singer

Farlowia 2:544. 1946.

Paxillus reniformis Berk. & Ravenel apud B. & C. Ann. Mag. Nat.

Hist. II:12:424. 1853.

Type, coll. by H. W. Ravenel, on oak rail,  
Sulphur Spring, North Carolina. From Kew  
Herb. (Herb. Berkeley, No. 1538).

Spores 7.5-9 x 5-6  $\mu$ , ellipsoid to ovoid in face view, slightly inequilateral and subreniform in profile, distinctly punctate, pale brown in 2% KOH. Basidia unsuitable for study. Pleurocystidia none; cheilocystidia 32-36 x 5-6  $\mu$ , ventricose to bottle-shaped, few. Pileus trama interwoven. Cuticle repent, but with numerous individual and clusters of hyphae which appear to form fibrillose scales—a trichodermium. The clusters often brownish. Pilocystidia more or less clavate, 40-80 x 6-10  $\mu$ . Clamp connections present on the epicuticular hyphae.

Singer (Farlowia 2:544. 1946.) says it has all the main characters of a Crepidotus, and he proposes the new combination of C. reniformis (B. & R.) Sing. He says that C. versutus Pk. is probably the same species; *but, versutus lacks clamps.*

The spores of C. ~~reniformis~~ reniformis are subreniform; those of versutus are not so.

The gills are very broad and thin, close. The pileus surface is fibrillose to fibrillose-scaly.

CREPIDOTUS PAXILLOIDES Singer

(See Agar. p. 594)

Paxillus reniformis Berk. & Rav. apud Berk. & Curt.

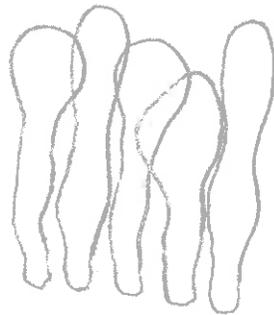
Ann. Mag. Nat. Hist. ser. II. 12:424. 1853.

Crepidotus reniformis (B. & R.) Singer. Farlowia 2:544. 1946.

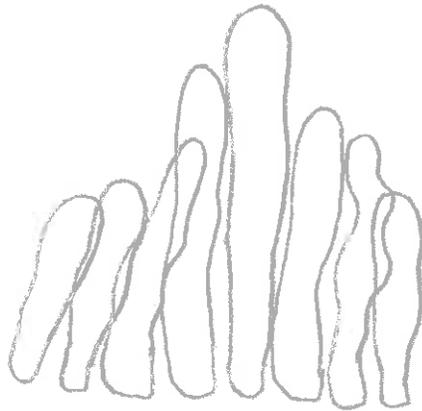
Discussion. - Singer (Farlowia 2:544) says Paxillus reniformis was described from North Carolina, but because of its verrucose spores, 8.3-10.2 x 5.5-6.5  $\mu$ , he places it in Crepidotus. He says further that C. versutus Pk. is probably the same species.

*Gepidostus putrigenus* (B+C) Race.

No. 29868



Ch. x 1000



Pileo - x 1000

(Tufts or scattered)

*regularis* sp. nov.

CREPIDOTUS H-13243

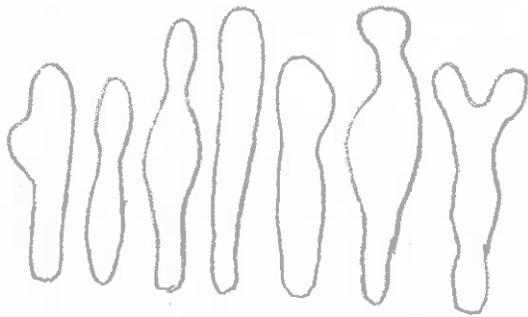
Coll. J. B. Routien, Missouri, Aug. 13, 1940.

(Routien identified it as versutus.)

Spores <sup>6-8</sup> ~~4-5~~ x (4) 4.5-5.5  $\mu$ , ellipsoid, inequilateral in profile, punctate. Basidia 22-27 x 5-6  $\mu$ . Pleurocystidia none; cheilocystidia 28-38 x 5-10  $\mu$ , clavate, ventricose, apices rounded, capitate, or, more rarely, forked. Pileus trama interwoven, hyphae broad (5-9  $\mu$ ). Cuticle of repent hyphae, bearing a turf of colorless, crooked, at times coiled, hyphae, 4-6  $\mu$  broad. Clamp connections present.

Fanellae broad, medium close or nearly subdistant.

*Crepidotus regularis*  
H-13243



Ch - x 1000

CREPIDOTUS REGULARIS sp. nov.

(H-25731)

On fallen fir twigs, Clingman's Dome, July 23, 1963.

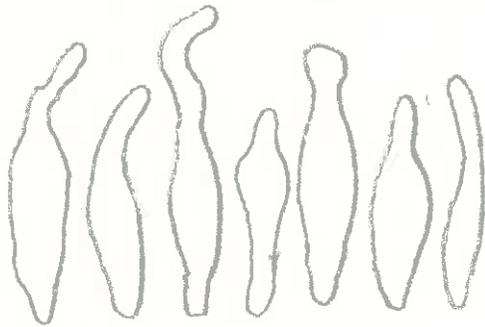
Pileus 2-5 mm broad, conchate, more or less expanding, margin remaining incurved, white, densely white-villose, dry, margin even, villose.

Lamellae close or moderately so, narrow to medium broad, white to pale ochraceous.

Stipe none.

Spores 6-8 x 5.3-6 (7)  $\mu$ , ellipsoid, equilateral in profile, punctate-echinulate. Basidia 22-27 x 6-7  $\mu$ , 2-4-spored. Pleurocystidia none; cheilocystidia 26-43 x 5-8  $\mu$ , ventricose, often with a slender neck, more rarely subcapitate. Gill trama subparallel, hyphae 4-7  $\mu$  broad. Pileus trama interwoven. Cuticle not always sharply differentiated, the surface bearing a turf of colorless, straight or crooked to coiled, hyphae, the hyphae on the margin distinctly crooked and coiled, the surface hyphae 3-5  $\mu$  broad, those on the margin 2-3  $\mu$  broad. Clamp connections present.

Prepidotus H - 25731  
regularis



Ch - x 1000

CREPIDOTUS RENIFORMIS (B. & Rav.) Singer

Farlowia 2:544. 1946

Paxillus reniformis Berk. & Rav. apud Berk. & Curt., Ann. & Mag.  
Nat. History, 2nd Ser., 12:424. 1853. (Non C. reniformis Vel.,  
České houby, p. 556. 1921.)

(from original descr.)

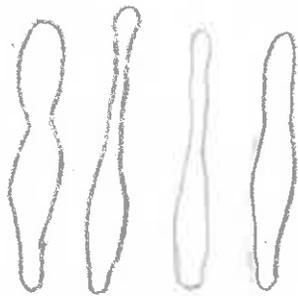
Pileus 1-3 in. across, light brown, reniform, densely  
tomentose, subimbricated.

Lamellae very broad, at first whitish, at length discolored  
by the subferruginous broadish spores.

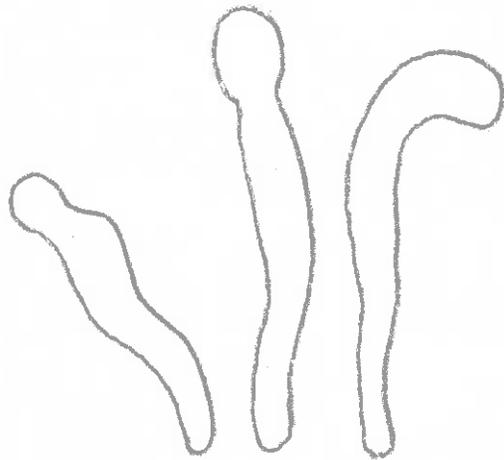
Stipe obsolete.

On oak rails, Surphur Springs, North Carolina, H. W. Ravenel.

*Orepidotus raniformis* (B.+R.) Singer  
Type = *paxilloridis*



Ch - x 1000



Pile - x 1000

CREPIDOTUS RHIZOMORPHUS Burt\*

Ann. Missouri Bot. Garden 10: 181. 1923

(adapted from Burt's description)

Pileus 5-7 mm. broad (dried), sessile, "pinkish buff" (dried), glabrous, margin even, entire, membranaceous.

Lamellae radiating from a central point, ventricose, close, snuff brown.

Rhizomorphic strand, about 1 mm. broad, bone-brown, extends along the grass culm.

Spores 6-7 x 4-4.5  $\mu$ , ochraceous under a microscope.

On culm of undet. grass, Hawaiian Islands, F. L. Stevens 340, type (in Stevens Herb.).

9?

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\* Burt, Edward Angus. 1923. Higher fungi of the Hawaiian Islands. Ann. Mo. Bot. Gard. 10: 179-189.

Aepidotus rhizomorphus Burt

Type

Coll. F. S. Stevens, No. 940, Hawaii, July 23, 1921.  
Borrowed from Univ. Illinois, Dept. Botany Herbarium,  
Mycological Collections 30029.

Spores  $5-7 \times 3.5-5 \mu$ , ellipsoid, smooth, brown.

Basidia  $17-20 \times 4-5 \mu$ . Pl. none; Ch.  $20-30 \times$

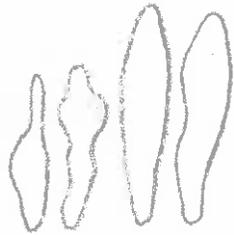
$5-6 \mu$ , versiform (fusoid, bottle-shaped, irregularly  
clavate). Gill trama slightly interwoven, hyphae

$3-5 \mu$  broad. Pileus trama interwoven. Cuticle of

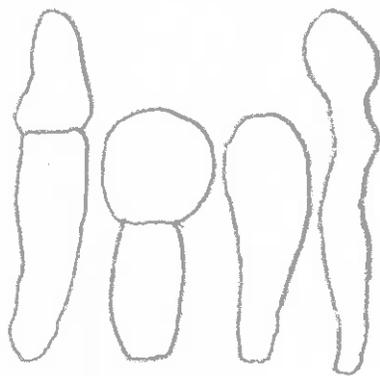
repent hyphae, at intervals bearing clusters of  
colorless, erect pilocystidia, cylindrical-capitate,

clavate, at times ~~septate~~, a ~~septum~~ septum cutting  
off a terminal cell. Clamp connections present.

*Crepidatus rhizomorphus* Burt  
Type



Ch - x 1000



Pils - x 1000

CREPIDOTUS ROSEUS Singer

Lilloa 13:87. 1947

Pileus 4-6 mm broad, dimidiate, convex to applanate, at first white, rosy, finally "congo pink" to "light congo pink," pubescent, subsilky to subglabrous, margin incurved. Context thin; odor none.

Lamellae radiating from an eccentric point, attenuated or rounded behind, subcrowded to subdistant, narrow (1-1.5 mm broad), "coral pink" to "Japan rose," then "testaceous" to "pecan brown."

Spores 5.8-7(8) x 5-5.7  $\mu$ , globose, subglobose, or ovoid to sub-ellipsoid, echinulate, brown. Basidia (15)22-27 x 6-7  $\mu$ , 2-4-spored. Pleurocystidia none, or a few near the gill-edges (60-100  $\mu$  above), 27-30 x 8-14  $\mu$ , clavate-irregular or fusoid; cheilocystidia 22-38 x 7-11  $\mu$ , versiform: cylindric, clavate, obclavate, ventricose, ampullaceous, at times (or often) constricted. Gill trama subparallel, hyphae 4-7  $\mu$  broad. Pileus trama interwoven. Cuticle of repent hyphae, often with numerous epicuticular hyphae forming a turf, the repent hyphae at times somewhat incrustated. Clasp connections present on the epicuticular hyphae.

Habit, Habitat, and Distribution - On wood, Florida, October.

Material Studied - FLORIDA: Singer, the type, on wood of Ficus sp., in tropical thicket, near Miami, October 30, 1942.

Observations - The description of microscopic characters above is based on a study of the type. The colors are distinctive.

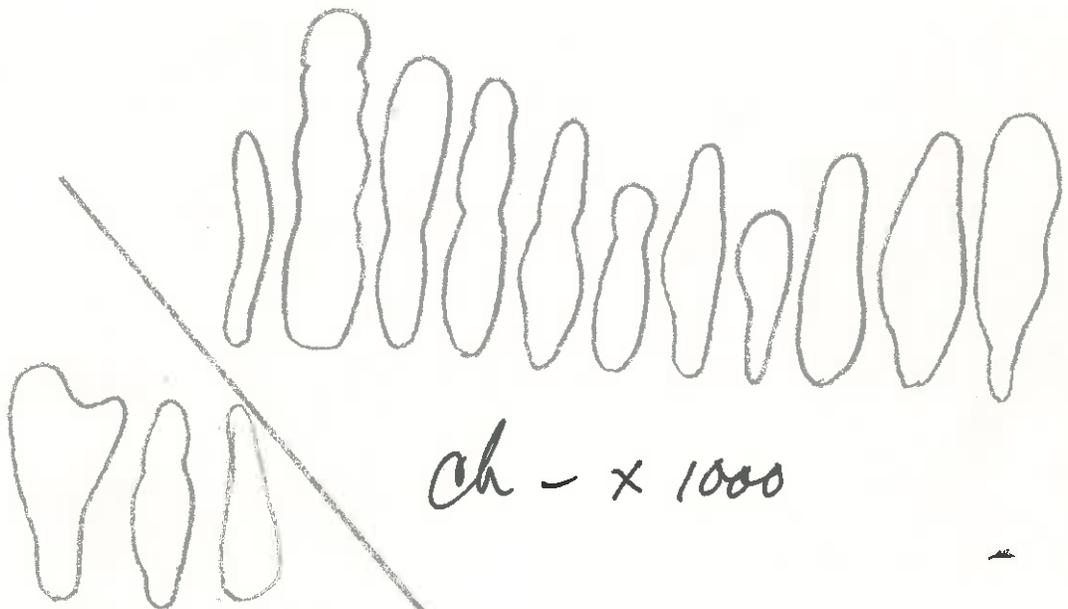
CREPIDOTUS ROSEUS Singer

(Type, No. F1361, on dead wood of Ficus sp., Dade Co., Florida, coll. & det. R. Singer, Oct. 30, 1942. From Farlow Herbarium.)

Spores 5.8-7 (8) x 5-5.7  $\mu$ , globose, subglobose, or ovoid to sub-ellipsoid, echinulate, brown. Basidia (15) 22-27 x 6-7  $\mu$ , 2-4-spored. Pleurocystidia none, or a few near the gill-edges (60-100  $\mu$  above), 27-30 x 8-14  $\mu$ , clavate-irregular or fusoid; cheilocystidia 22-38 x 7-11  $\mu$ , versiform: cylindric, clavate, obclavate, ventricose, ampullaceous, at times (or often) constricted. Gill trama subparallel, hyphae 4-7  $\mu$  broad. Pileus trama interwoven. Cuticle a cutis, more often with numerous epicuticular hyphae forming a trichodermium, the repent hyphae at times somewhat incrustated, and the aërial hyphae reminding one of those of C. quitensis. Clamp connections on the epicuticular hyphae.

*Crepidotus roseus* Finger

Type



ch - x 1000

Pl - x 1000

PHAEOMARASMIUS RUFOLATERITIUS (Bres.) Sing.

Lilloa 13:85. 1947.

Crepidotus rufolateritius Bres., Hedwigia 24:186. 1885.

Pileus 2-4 mm broad, sessile, resupinate, rarely reflexed, cupulate, latericio-rufous, glabrous, margin lobed. Context membranous.

Lamellae radiating from an eccentric point, concolorous, distant, broad, edges white, rounded at the ends.

Spores 10.5-12.5 x (6.5)7-9  $\mu$ , ellipsoid, smooth, with a germ-pore. Basidia 33-37 x 9-10  $\mu$ , 4-spored. Pleurocystidia none; cheilocystidia 38-48 x 6-8  $\mu$ , clavate, clustered, colorless. Epicuticular hyphae brown, septate, incrustated, with clamp connections.

Habit, Habitat, and Distribution - On bark of Crataegus, Missouri, March.

Material Studied - MISSOURI: Rabenhorst-Winter Passchke, Fungi No. 3941, part of the type, from N. Y. Bot. Garden, collected by C. H. Demetrie, Esna, Mch. 1892. The type is in the Bresadola Herbarium Museum, at Stockholm.

Observations - The description of microscopic characters above is based on a study of the material from New York Botanical Garden. It is sparse, and no sections of the pileus were made. Singer (1947) states that it is a native of southern United States. He has transferred it to Phaeomarasmius.

CREPIDOTUS RUFOLATERITIUS Bres.

(Type (Part of)

*on bark of Crataegus*  
(Coll. by C. H. Demetrio, ~~Evina~~, Missouri, March, 1892. No. 3941, Rab.-Wint. Paz. Fungi Eur.)

Spores 10.5-12.5 x 7-9  $\mu$ , ellipsoid, smooth, with a germ-pore. Basidia 33-37 x 9-10  $\mu$ , 4-spored. Pleurocystidia (none found); cheilocystidia 38-48 x 6-8  $\mu$ , clavate, clustered, colorless. Epicuticular hyphae brown, septate, incrustated, with clamp connections.

The material was too sparse for satisfactory study, and no sections were prepared.

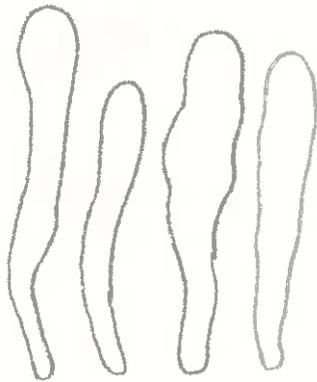
Singer (Lilloa 13:85) places this in Phaeomarasmius, and proposes the new combination P. rufolateritius (Bres.) Sing., and states further that it is a native of southern United States.

*The type is in the Bresadola Herbarium Museum at Stockholm*

*Crepidotus rufolateritius* Bres.

~~Fr~~ Type

No. 3941, Rabenhorst-Winter Pappschke, Fungi Europaei



Ch - x 1000

CREPIDOTUS SEPIARIUS Pk.

Bull. Torrey Club 25: 324. 1898.

Pileus 4-8 mm broad, convex, subumbilicate, grayish-tawny, very minutely squamulose, even. Context thin.

Lamellae adnexed, tawny, edges minutely crenulate.

Stipe 2-4 mm long, curved, generally eccentric, rarely central, brownish, sometimes mealy or pulverulent.

Spores 9-10 x 6  $\mu$ , broadly ellipsoid.

Habit, habitat, and distribution - On oak rails, Michigan, January.

Materials studied - The type has been lost. It was collected in Michigan by W. J. Beal, and apparently has not been found since.

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Bull. Torrey Club 25: 324. 1898.

Pileus 4-8 mm broad, convex, subumbilicate, grayish-tawny, very minutely squamulose, even. Context thin.

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Habit, habitat, and distribution - On oak rails, Michigan, January.

Materials studied - The type has been lost. It was collected in Michigan by W. J. Beal, and apparently has not been found since.

26245

CREPIDOTUS *smithii* sp. nov.

on oak log, Cades Cove, June 18, 1964

Pileus 5-12 mm broad, sessile, or short-stipitate, slightly concave to convex, pale pinkish brown, densely covered with dark brown, fibrillose scales, margin even. Context white, soft; odor mild, taste soon very bitter-astringent.

Lamellae radiating, adnate, close, narrow, "ochraceous orange", edges nearly even.

Stipe none, or present and very short, white.

Spores 4.5-5.5  $\mu$ , globose or ovoid, punctate, brown. Basidia 30-35 x 6-7  $\mu$ , 4-spored. Pleurocystidia 44-57 x 6-10  $\mu$ , clavate to cylindrical, with a rather long (8-15 $\mu$ ) appendiculus, conspicuous; cheilocystidia 28-40 x 5-7  $\mu$ , cylindrical or subclavate, at times slightly irregular. Gill trama subparallel, hyphae 3-6  $\mu$  broad. Pileus trama radial. Cuticle of repent hyphae, bearing numerous tufts of brown, septate, incrusting hyphae. Clamp connections present.

Near C. aureifolius, and may be a slightly immature form of that. Cf. C. appalachianensis.

*Crepidotus smithii* sp. nov.

Pileus 5-12mm broad, sessile, or with a pseudostipe, conchate to convex, pale pinkish brown, densely dark brown, fibrillose-scaly, margin even. Context white; odor mild, taste soon becoming bitter-astringent. Lamellae radiating, at first yellowish orange, then "ochraceous orange", close, narrow. Spores 4.5-5.5 $\mu$ , spherical to ovoid, punctate. Pleurocystidia 44-57 x 6-10 $\mu$ , clavate to cylindrical, scattered; cheilocystidia 28-40 x 5-7(10) $\mu$ , clavate, subcylindric or somewhat ventricose. Pileus cuticle of dry repent hyphae, becoming erect in bundles. Clamp connections present. Specimen typicum in Herb. Univ. Tenn., lectum Cades Cove, Tennessee, June 18<sup>th</sup> 1964, No. 26245 (TENN).

Pileus 5-12 mm latus, sessilis vel cum pseudostipite, conchatus demum convexus, pallido-subroseo-brunneus, valde fusco-brunneas fibrillosas squamas ferens, margine planus. Contextus albus, odor mitis, gustus mox amaro-astringens. Lamellae se radiantes, primo subflavo-aurantiae, deinde "ochraceous orange", confertae, angustae. Spores 4.5-5.5  $\mu$ , globosae demum ovoides, punctatae. Pleurocystidia 44-57 x 6-10  $\mu$ , clavata demum cylindracea, diffusa; cheilocystidia 28-40 x 5-7(10)  $\mu$ , clavata, subcylindracea vel nonnihil ventricosa. Pilei cuticula ex hyphis <sup>repentibus</sup> composita deinde fascibus arrecta. Fibulae adsunt. (Over)

Specimen ~~typicum~~ in Herb. Univ. Tenn., <sup>lectum</sup> ~~typicum~~ Cades Cove,  
Tennessee, June 18, 1964, no. 26245 (TENN).

subapplanatus

CREPIDOTUS No. 23088

On log, Blue Ridge Parkway, July 30, 1958.

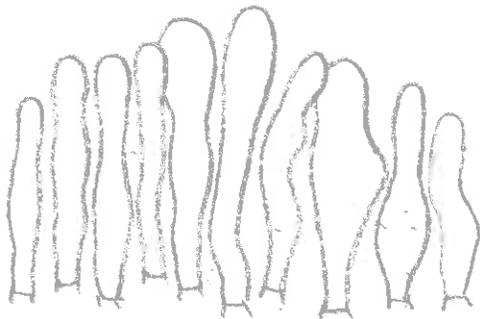
Pileus 12-24 mm broad, subcuneate to fan-shaped, white, glabrous.

Lamellae close, ~~narrow~~ narrow.

Spores 4-5.5 ~~4.5~~  $\mu$ , globose, punctate. Basidia 24-28 x 5-6  $\mu$ , 4-spored. Pleurocystidia 26-34 x 4-7  $\mu$ , clavate-appendiculate; cheilocystidia 26-52 x 5-9  $\mu$ , clavate, ventricose, at times more or less constricted, straight or slightly crooked. Gill trama slightly interwoven, hyphae 4-7  $\mu$  broad. Pileus trama interwoven. Cuticle of repent hyphae, bearing scattered to numerous pilocystidia, 30-67 x 5-10  $\mu$ , clavate, flask-shaped with a neck, some constricted. Clamp connections present, rare.

*Crepidotus smithii* sp. nov.

26245



ch x 1000



pl x 1000  
(rare!)

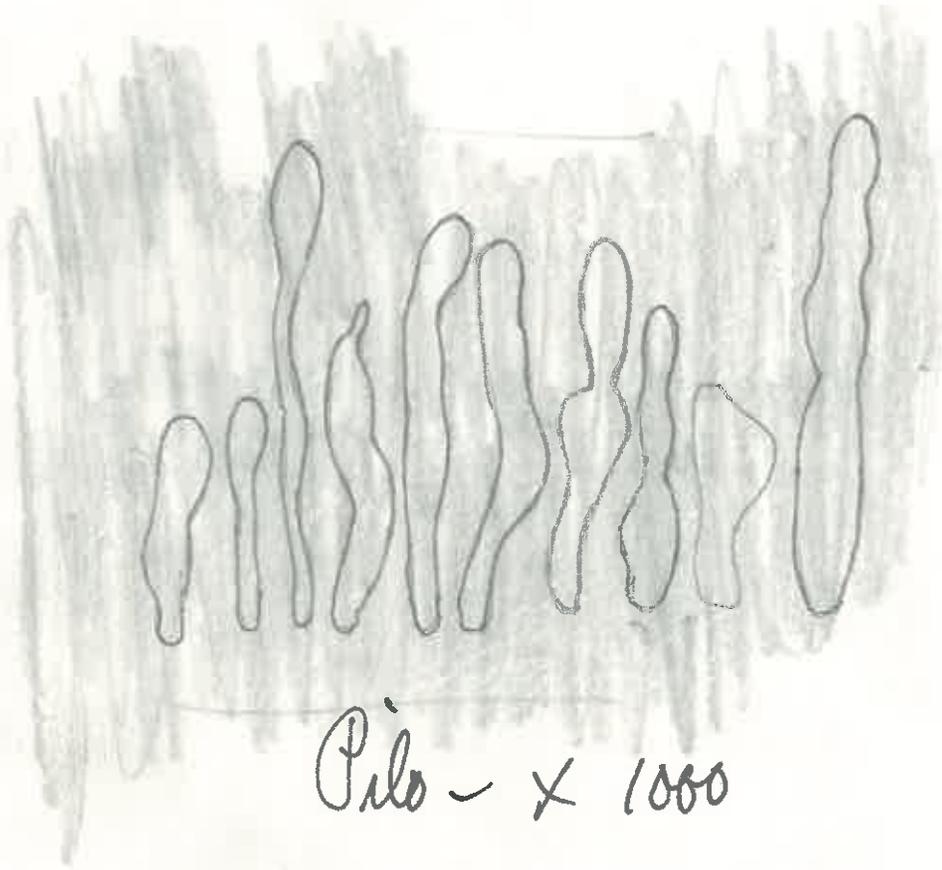
Crepidotus H-23088  
subafflanatus



Pl - x 1000



Ch - x 1000



Pilo - x 1000

~~3 copies~~

MELANOTUS SUBCUNEIFORMIS (Murr.) Sing.

Lilloa 13:87. 1947

Crepidotus subcuneiformis Murr., Mycologia 5:29. 1913.

Pileus reaching 1 cm. broad and becoming somewhat longer, fragile, broadly wedge-shaped, approaching orbicular, plane, sessile, tapering to a rather broad base which is not strigose, glabrous or pulverulent, dull isabelline to avellaneous-isabelline, moist, margin even. Context thin, rather firm.

Lamellae radiating from the base, close, medium broad, plane, dull-yellowish to umbrinous.

Spores 7-9 x 5-6  $\mu$ , ellipsoid to sublenticular, smooth, wall double, with a germ-pore. Basidia 24-28 x 6-7  $\mu$ , 4-spored. Pleurocystidia none; cheilocystidia 20-27 x 3-5  $\mu$ , cylindrical-clavate, inconspicuous. Gill trama interwoven. Cuticle of repent hyphae, slightly darker than the context. Clamp connections present on the tomentum at the base of the pileus.

Habit, Habitat, and Distribution - On decaying cocoanut husks, West Indies, September.

Material Studied - <sup>Murrill,</sup> GRENADA: ~~(West Indies)~~ ~~no~~ type, collected by W. E. Broadway, Sept. 1905.

Observations - This was transferred from Crepidotus to Melanotus by Singer (1947) because of the ~~very dark~~ spore-color.

← The description of microscopic characters above is based on a study of the type.

and the presence of a germ-pore.

MELANOTUS SUBCUNEIFORMIS (Pat.) Sing.

Lilloa 13:87. 1947

Crepidotus subcuneiformis Murr., Mycologia 5:29. 1913.

Pileus reaching 10 mm broad and becoming somewhat longer, sessile, broadly wedge-shaped, approaching orbicular, plane above, tapering to a rather broad base, glabrous or pulverulent, moist, dull-isabelline to avellaneous-isabelline, margin even. Context thin, rather firm, fragile on drying.

Lamellae radiating, plane, subcrowded, dull-yellowish to umbrinous.

Spores 7-9 x 5-6  $\mu$ , ellipsoid to sublenticular, smooth, wall double, with a germ-pore. Basidia 24-28 x 6-7  $\mu$ , 4-spored. Pleurocystidia none; cheilocystidia 20-27 x 3-5  $\mu$ , cylindric-clavate, inconspicuous. Gill trama interwoven. Cuticle of repent hyphae, slightly darker than the context. Clamp connections present on the outicular hyphae, and on the tomentum at the base of the pileus.

Habit, Habitat, and Distribution - On decaying cocconut husks, Grenada, September.

Materials Studied - GRENADA: Type collected by W. E. Broadway, Sept. 1905; on deposit at the New York Botanical Garden Herbarium.

Observations - The sublenticular spores with a germ-pore places this in the genus Melanotus (see Singer, 1947).

CREPIDOTUS SUBCUNEIFORMIS Murr.

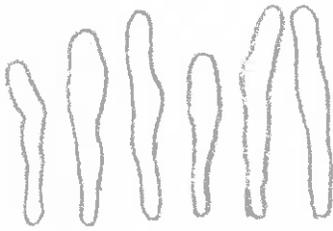
Type *on decaying coconut husks,*  
(Coll. by W. E. Broadway, Grenada, West Indies,  
Sept. 1905).

Spores 7-9 x 5-6  $\mu$ , ellipsoid to sublenticular, smooth,  
wall double, with a germ-pore. Basidia 24-28 x 6-7  $\mu$ , 4-spored.  
Pleurocystidia none; cheilocystidia 20-27 x 3-5  $\mu$ , cylindric-  
clavate, inconspicuous. Gill trama interwoven. Cuticle of  
reperit hyphae, slightly darker than the context. Clamp  
connections present on the *cuticular hyphae, and on the* tomentum at the base of the pileus.

<sup>1447</sup>  
Singer (Lilloa 13:87) says this is a Melanotus, and  
proposes M. subcuneiformis (Murr.) Singer.

*Crepidula subcuneiformis* Murr.

Type



Ch - x 1000

CREPIDOTUS SUBEPIBRYŮS Pilát

Type specimen, No. 149050, (Type), borrowed from Herb. Museum Nationale Prague, leg. V. Vacek, det. A. Pilát, Sept. 10, 1943.

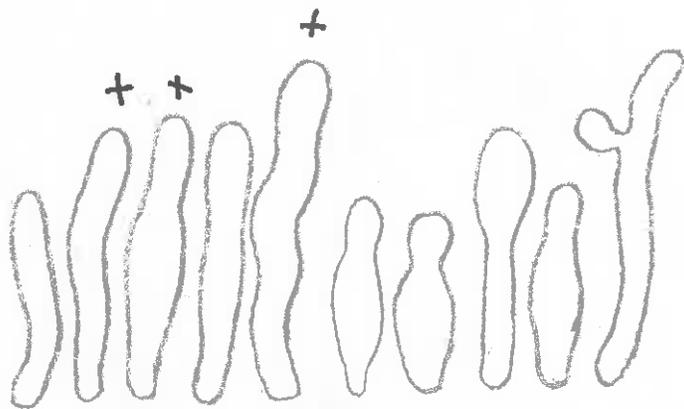
Type

ovoid to

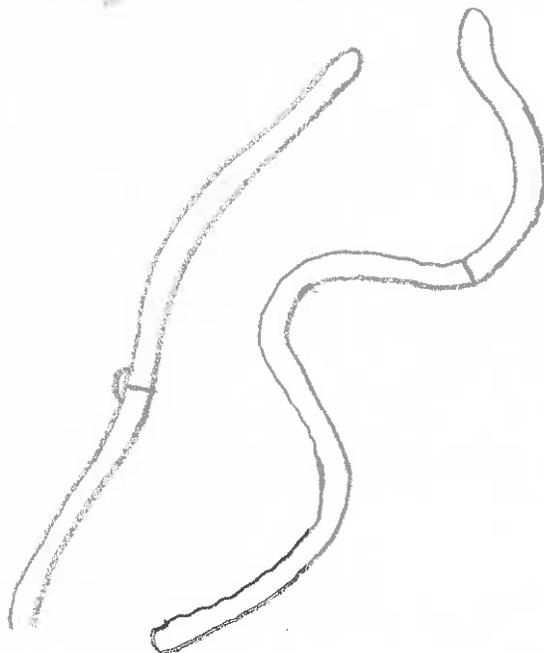
Spores 5.5-7(7.5) x 4.3-5.7  $\mu$ , <sup>^</sup>ellipsoid, only slightly or not at all inequilateral in profile, conspicuously punctate, brownish. Basidia 20-28 x 5-6  $\mu$ . Pleurocystidia none; cheilocystidia 23-45 x 5-8  $\mu$ , mostly cylindrical, at times more or less ventricose and capitate. Gill trama subparallel, hyphae 2.5-5  $\mu$  broad. Pileus trama interwoven. Cuticle only slightly or not at all differentiated, the surface bearing a turf of more or less erect, colorless hyphae, mostly straight, a few on the pileus-margin somewhat flexuous, none coiled, 2.5-5  $\mu$  broad. Clamp connections present.

*Aepidotus subepibryus* Pilät

Pilät No. 149050 : the Type



Ch - x 1000 (those checked, x,  
the most common type)



CREPIDOTUS SUBEPIBRYUS Pilát

No. 58416, Sept. 16, 1958, det. Bas., Reijksherbarium,  
Leiden, Netherlands.

Spores 6.5-7.5 x 4.5-5.5  $\mu$ , ellipsoid, obscurely punctate or nearly smooth. Basidia 20-30 x 6-7  $\mu$ , 4-spored. Pleurocystidia none; cheilocystidia not found. Gill trama subparallel, hyphae 3-5  $\mu$  broad. Pileus trama interwoven. Cuticle not strongly differentiated, the surface bearing a turf of very slender (1.5-2.5  $\mu$ ), colorless hyphae. Clamp connections none.

Spores were few.

CREPIDOTUS SUBMOLLIS Murr.

Mycologia 4:245. 1912.

Pileus 2-4 cm broad, sessile, reniform to subcircular, lobbed, white to discolored, finely silky, strigose-hirsute behind, margin sulcate or plicate.

Lamellae medium broad to broad, close, white to ferruginous, edges concolorous.

Spores 7-9.5 x 4.5-5.5  $\mu$ , ellipsoid, faintly punctate. Basidia (24) 32-39 x 6-8  $\mu$ , 4-spored. Pleurocystidia none; cheilocystidia 32-50 x 5-10  $\mu$ , variable and often irregularly-shaped, forked or knobbed, ventricose with a neck, clavate-appendiculate, obclavate, often more or less constricted. Gill trama subparallel, hyphae 5-9 (15)  $\mu$  broad. Pileus trama interwoven, Cuticle & Cutis, with scattered, or dense, short, or long, colorless hyphae 3-6  $\mu$  broad, at times approaching a trichodermium. Clamp connections on the tomentum at the pileus base and on the epicuticular hyphae.

Habit, Habitat, and Distribution - On wood, Washington, and California, Oct. - Nov., and Feb.

Material Studied - CALIFORNIA: Harper 27, Berkeley, Feb. 7, 1911; WASHINGTON: Murrill 572, the type, from

Seattle, Oct. 20- Nov. 1, 1911; Murrill 603, Seattle, Oct. 20 - Nov. 1, 1911.

Observations - The punctations on the spores at first escape notice, but are observed when the amount of light is reduced.

The description of microscopic characters above is based on a study of the type.

The other two collections agree microscopically with the type. A third collection, at the N. Y. Botanical Garden Herbarium, (by H. C. Gilbert, No. 38, from southeast of Corvallis, Oregon, Nov. 24, 1915), labelled C. submollis, has the characters of C. mollis.

Singer (1947) says C. submollis differs from C. luteolus chiefly by its white pileus, somewhat larger average size, and perhaps the more constantly shorter spores.

Very close to C. Amygdalosporus Kuhner.

CREPIDOTUS SUBMOLLIS Murr.

TYPE

(Coll. by W. A. Murrill, No. 572, Seattle,  
Washington, Oct. 20 - Nov. 1, 1911.)

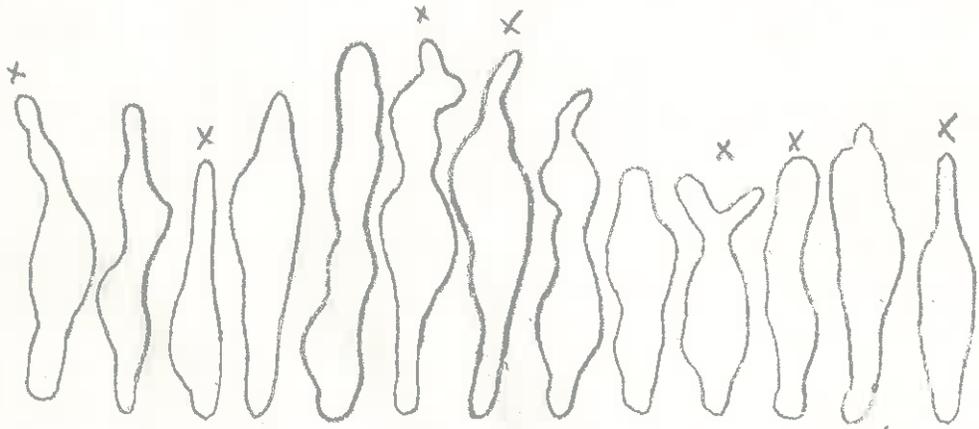
Spores 7-9.5 x 4.5-5.5  $\mu$ , ellipsoid, faintly punctate,  
Basidia (24) 32-39 x 6-8  $\mu$ , 4-spored. Pleurocystidia none;  
cheilocystidia 32-50 x 5-10  $\mu$ , variable and often irregularly  
shaped, ventricose with a neck, clavate-appendiculate, ob-  
clavate, often more or less constricted. Gill trama sub-  
parallel to more or less interwoven, hyphae 5-9/<sup>(15)</sup> $\mu$  broad.  
Pileus trama interwoven. Cuticle of repent hyphae or, at  
times, not sharply differentiated, with shattered and short, or  
numerous and long, colorless hyphae, 3-6  $\mu$  broad, more or  
less erect, forming a turf, hyphae not coiled at the tips.  
Clamp connections on the tomentum at the pileus base and on  
the epicuticular hyphae.

The punctations of the spores escape notice at first,  
but they are observed when the light is appropriately adjusted  
by the diaphragm.

Singer (Lilloa 13:79) says it differs from C. luteolus  
chiefly by its white pileus, somewhat larger average size, and  
perhaps the more constantly shorter spores.

*Crepidotus submollis* Murr.

Type

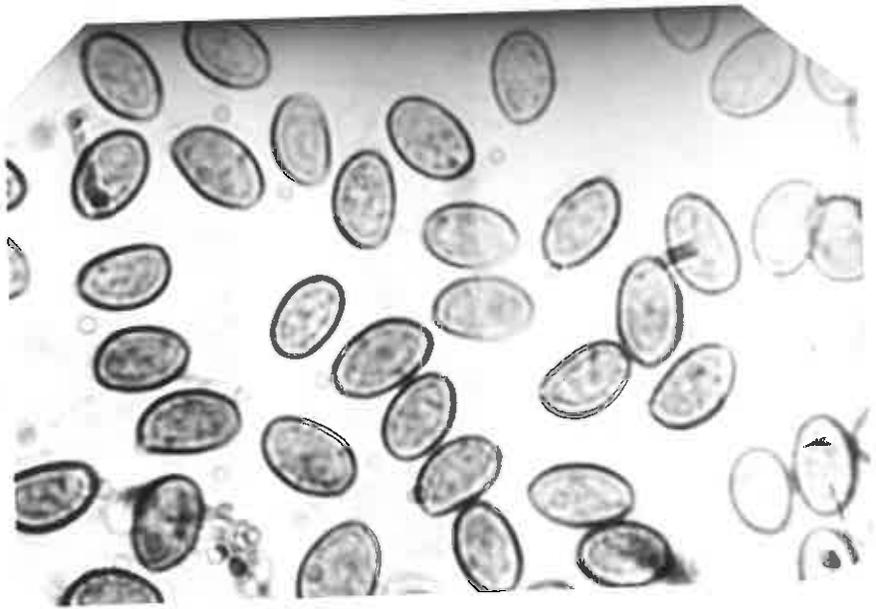


Ch - x 1000

CREPIDOTUS SUBMOLLIS Murr.

(R. A. Harper, No. 27, Berkeley, Calif., Feb. 7,  
1911.)

Agrees with the Type.



*Crepidotus submollis* Murr. - Spores of type

? mollis  
CREPIDOTUS SUBMOLLIS Murr.

(Coll. by H. C. Gilbert, No. 38, Nov. 24, 1915,  
S. E. Corvallis, Oregon.)

This has the characters of C. mollis: a thick gelatinous cuticle (an ixocutis) which occupies about half of the pileus context. Spores 7-9 x 4-6  $\mu$ .

CREPIDOTUS SUBMOLLIS Murr.

(Coll. by Murrill, No. 603, Seattle, Washington,  
Oct. 20-Nov. 1, 1911.)

This seems to agree with the type.

CREPIDOTUS SUBNIDULANS (Overh.) comb. nov.

Claudopus subnidulans Overh., Ann. Mo. Bot. Garden 3:195. 1916.

Pileus 0.5-2 cm broad, sessile, reniform or dimidiate, convex, dry, fibrillose-tomentose, bright orange-tawny, margin inrolled, even or slightly striate. Context thin, white; odor and taste none.

Lamellae radiating from the point of attachment, sub-distant, rather broad (3-5 mm), salmon colored or dull orange.

Stipe none, pileus attached by a white, tomentose base.

Spores 5.5-7.5 x 5-7  $\mu$ , globose to slightly globose, smooth, pale brown in 2% KOH. Basidia 35-41 x 10-13  $\mu$ , 2-4-spored, basidia clavate, the lower two-thirds slender. Pleurocystidia 43-53 x 3.5-6  $\mu$ , cylindric to sub-clavate, rare; cheilocystidia 38-50 x 8-13  $\mu$ , pale fuscous, clavate or bottle-shaped, apparently of tramal origin., rare. Gill trama undulating subparallel. Pileus trama radial, appearing as pseudoparenchyma in tangential sections. Cuticle of repent hyphae, bearing rather numerous, more or less erect, fuscous, septate, rarely branched hyphae, the terminal elements cystidioid (pilocystidia). Clamp connections moderately common in the epicuticular hyphae. Hactifiers none.

Habit, Habitat, and Distribution - On rotten log,  
missouri, October.

Material Studied - MISSOURI: Overholts 13045, the type,  
from Jefferson Barracks, near St. Louis, Oct. 25, 1913.

Observations- Singer (1951) doubtfully assigns this species to the genus Phyllotopsis. That genus, however, has cylindric-allantoid spores. Under modern systems, Claudopus has angular spores, and is usually placed in Rhodophyllus. The difficulty in placing subnidulans in Crepidotus is its salmon - pink spores (in deposits). They are, however, pale brownish in 2% KOH, under the microscope. Pending additional collections and observations, we are placing it in Crepidotus.

The description of microscopic characters above is based on a study of the type.

CLAUDOPUS SUBNIDULANS Overh.

Ann. Mo. Bot. Gard. 3:195. 1916

(The type, collected by L. O. Overholts, Mo. Bot. Gard. Herb. No. 13045, from Jefferson Barracks, near St. Louis, Missouri, on rotten log, Oct. 25, 1913. Borrowed from U. S. Dept. Agr., National Fungus Collections, Feb. 15, 1962.)

Notes on Type

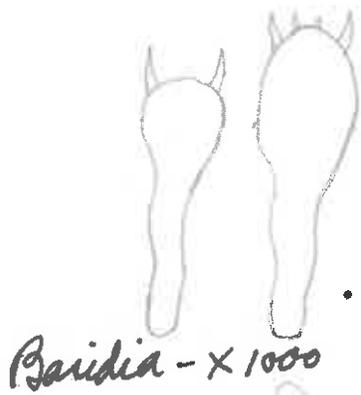
Spores 5.5-7.5 x 5-7  $\mu$ , globose to slightly subglobose, smooth, pale brown, <sup>in 2% KOH,</sup> non-amyloid. Basidia 35-41 x 10-13  $\mu$ , 2-4-spored, basidia clavate with the lower 2/3 a slender <sup>stalk.</sup> Pleurocystidia 43-53 x 3.5-6  $\mu$ , cylindrical to sub-clavate, rare; cheilocystidia 38-50 x 8-13  $\mu$ , pale fuscous, clavate or bottle-shaped, apparently <sup>of</sup> tramal ~~cheilocystidia~~ <sup>origin,</sup> rare. Gill trama undulating subparallel. Pileus trama <sup>of</sup> radial, appearing as pseudoparenchyma in tangential sections. Cuticle <sup>of</sup> repent, <sup>hyphae</sup> but with rather numerous, <sup>bearing</sup> more or less erect, fuscous, septate, rarely branched, ~~granulate~~ hyphae, the terminal elements cystidioid (pilocystidia). Clamp connections moderately common in the epicuticular hyphae. Lactifers none.

The type is considerably fragmented, but is adequate for study.

Under more recent systems, Claudopus has angular (Rhodophyllus-like) spores. Singer thought this species might belong to Phyllotopsis, - a genus in which P. nidulans is the type species, and in which the spores are allantoid. For the moment it may best be assigned to Crepidotus.

*Claudopus subnidulans* Overh.

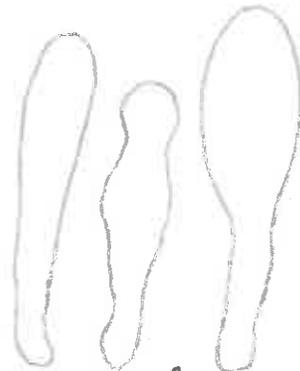
Type



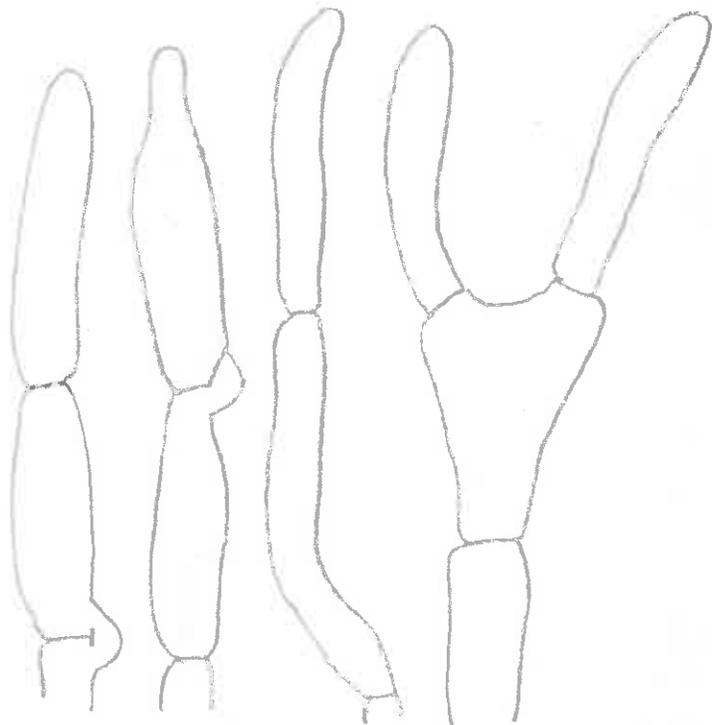
*Baidia* - x 1000



*Pl* - x 1000



*Ch* - x 1000



*Pilocystidia* - x 1000

25208      CREPIDOTUS SUBSPHAEROSPORUS (Lange) K. & R.

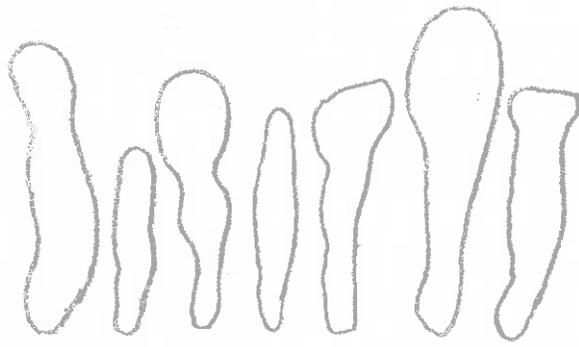
Hongo-944, Kyoto, Japan, July 13, 1954.

Spores 5.5-7 (8) x 4-5  $\mu$ , ellipsoid, inequilateral, punctate. Basidia 18-22 x 5-6  $\mu$ , 2-4-spored. Pleurocystidia none; cheilocystidia 24-45 x 5-12  $\mu$ , clavate, ventricose. Gill trama subparallel, narrow. Pileus trama interwoven. Cuticle of repent hyphae, bearing a turf of colorless hyphae; no pilocystidia. Clamp connections present.

See Lange's description.

*Pepidostus subphaeosporus* (Känge) K. R.  
(H-25208)

from Hongo, Japan



Ch. x 1000

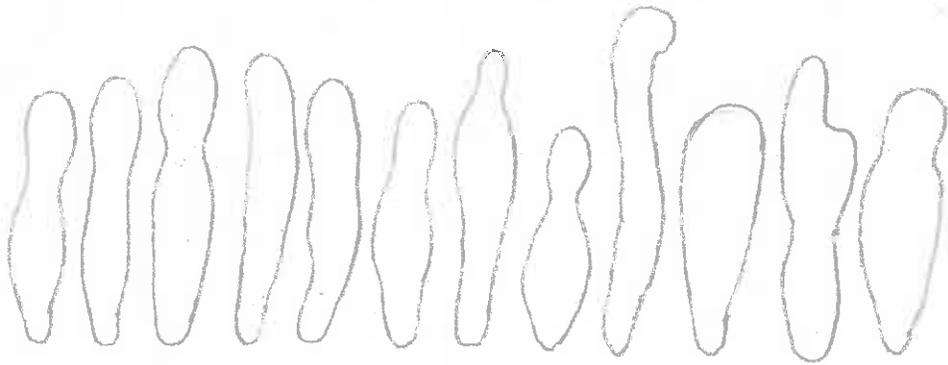
CREPIDOTUS SUBSPHAEROSPORUS Lange

On dead branches, in woods, leg. M.A. Donk, Oct. 6, 1962,  
Limburg Province, Netherlands.

Spores 5.8-8(8.5-9) x 4.5-5.5(6)  $\mu$ , ellipsoid, slightly inequilateral, obscurely punctate, yellowish brown in 2% KOH. Basidia 24-30 x 6-7  $\mu$ , 4-spored. Pleurocystidia none; cheilocystidia 29-47 x 6-10  $\mu$ , ventricose, nine-pin-shaped, or clavate. Gill trama subparallel, hyphae 3-6  $\mu$  broad. Pileus trama interwoven. Cuticle not differentiated, the surface bearing a turf of colorless hyphae, 4-7  $\mu$  broad, thick-walled. Clamp connections present.

*Crepidotus subphaerosporus* Fänge

(from Bas, on loan; leg. Donk,  
Oct 6, '62, Finburg, Netherlands)



Ch - x 1000

CREPIDOTUS SUBVERRUCISPORUS Pilat

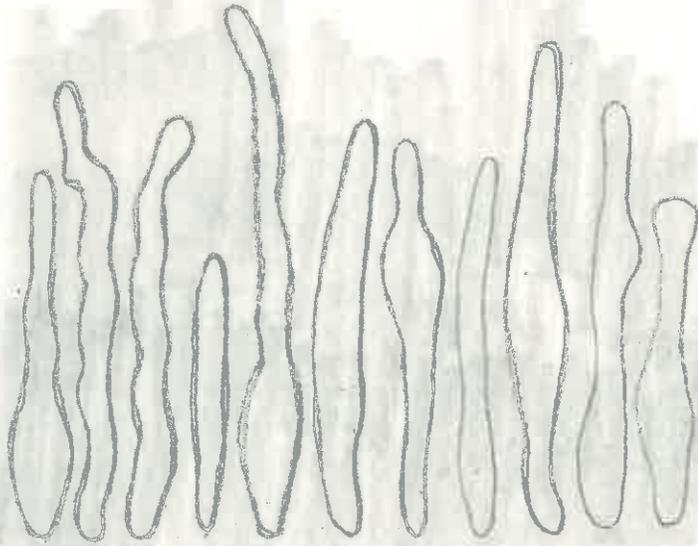
Type

Legit: Václav Vacek, det. A. Pilat, July 20, 1946, on branches of Robinia pseudocacia, Chrustenica, Bohemia, No. 149034. (Borrowed from Pilat, Herb. Kryptogamologicum Musei Pragae, April 29, 1963.)

Spores 7-9 (10) x 4.5-6  $\mu$ , ellipsoid, inequilateral in profile, ~~pubescent~~ wrinkled-rough, wall moderately thick, brown. Basidia 24-33 x 6-8  $\mu$ , 2-4-spored. Pleurocystidia none; cheilocystidia ~~37-64 x 3-7 (base) x 3-8 (middle) x 3-4 (apex)~~ <sup>37-70 x 5-8  $\mu$</sup> , filamentous, cylindric, bottle-shaped and often with a slender neck, clavate, more rarely subfusoid, at times flexuous. Gill trama subparallel to slightly interwoven, hyphae 4-10  $\mu$  broad. Pileus trama interwoven. Cuticle repent, bearing a turf of colorless, non-incrusted hyphae: (a) slender, 2-5  $\mu$  broad; (b) broader 6-9  $\mu$ , up to 14  $\mu$  broad when inflated. Clamp connections present, more abundant on the narrow hyphae.

*Cepidotus subverrucisporus* Pilat

No. 149034 : Type



Ch - x 1000

GREPIDOTUS SUBVERRUCISPORUS Pilat

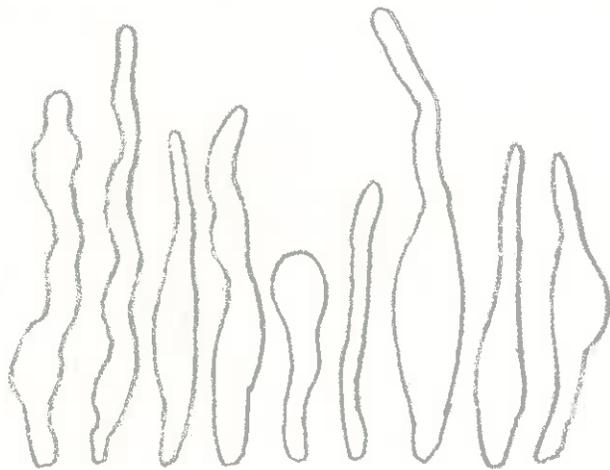
No. 189766, leg. & det. Pilat, on dead branches of Carpinus  
betulae, Polonica, from Herb. Kryptogam. Musee Nat.  
Prague, Oct. 14, 1950.

Macroscopic characters as in McKnight F-106.

Spores 7.5-9 (11) x 5-6  $\mu$ , ellipsoid or ovoid, inequilateral  
in profile, wrinkled ~~wavy~~, wall thick. Basidia 28-33 x  
7-8  $\mu$ , 2-4-spored. Pleurocystidia none; cheilocystidia 28-60 x 2-9  $\mu$ ,  
~~BA9 (base) x 2-9  $\mu$  (width) x 2-4  $\mu$  (height)~~ filamentous, clavate,  
subcapitate, bottle-shaped with a neck, flexuous. Gill trama  
subparallel to slightly interwoven, hyphae 4-8 (10)  $\mu$  broad.  
Pileus trama interwoven. Cuticle repent, bearing a turf of:  
(a) slender, 2-4  $\mu$  broad, colorless hyphae; (b) broader, 4-10  $\mu$   
broad, colorless hyphae, many cells inflated (then up to 14  $\mu$ ).  
Clamp connections present.

McKnight F-106 agrees with this. CK. gill color!

*Orepidotus subverrucisporus* Pilat  
Herb. Prague, No. 189466



Ch - X 1000

CREPIDOTUS SUBVERRUCISPORUS Pilat

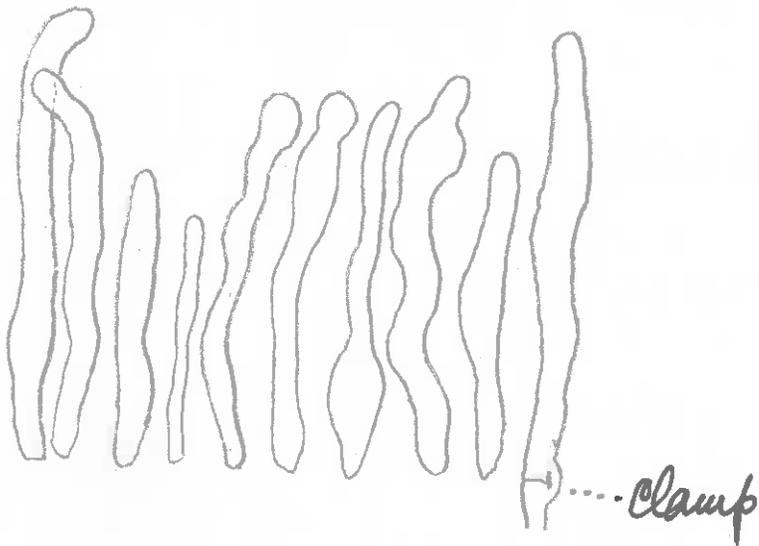
No. 189768, on beech leaves, leg. Pouzar, July 28, 1950, Prague,  
det. Pilat.,

Spores 7-9 (10) x 4.5-5.5 (6)  $\mu$ , ellipsoid or ovoid,  
inequilateral in profile, ~~irregularly~~ wrinkled. Basidia  
24-33 x 6-8  $\mu$ , 4-spored. Epicuticular hyphae of two types:  
(1) broad, 6-12  $\mu$ , at times the cells inflated (then up to  
20  $\mu$ ); (2) slender, 4-6  $\mu$ .

Seems same as McKnight F-106.

*Cepidotus subverrucisporus* Pilat

Herb. Prague, No. 189768



Ch - X 1000

CREPIDOTUS SUBVERSUTUS Pk.

Clitopilus

nom. nud. in Reid, History of Pasadena, p. 621. 1895

(Collected by A. J. McClatchie, California)

Spores 7.5-9 x 5-5.5  $\mu$ , ellipsoid, faintly angular in end-view, occasionally with faint longitudinal ridges, colorless under 'scope. Basidia 20-24 x 5-6  $\mu$ , 4-spored. Pleurocystidia and cheilocystidia none. Gill trama subparallel, noticeably undulating. Pileus trama interwoven. Cuticle a cutis bearing numerous, more or less erect, tangled, slender, colorless hyphae forming a trichodermium. Clamp connections none.

Singer (Lilloa 13:86) says it is a nomen nudum, since it was never validly published. In his Agar. (1st ed.) p. 607, he lists it as a synonym of Clitopilus septicoides (Henn.) Sing.; in Agar. (2nd ed.) p. 675, he lists it as a synonym of Clitopilus hobsonii (Berk. & Br.) Orton. <sup>Ita</sup> ~~was~~ spores place it in Clitopilus.

See my 24891.

= uber (B. + C.) Sacc

CREPIDOTUS SULCATUS Murr.

Mycologia 5:29. 1913

Pileus 1-2 cm. broad, reniform, dimidiate, or resupinate, white, becoming ochraceous when dry, glabrous, base strigose, margin sulcate-striate.

Lamellae radiating from an eccentric or lateral point, crowded or subcrowded, rather broad, dark-ochraceous or pale-cinnamon.

Stipe none.

Spores 6-7 x 4.5-6  $\mu$ , ellipsoid in front view, slightly inequilateral in profile, smooth. Basidia 17-22 x 5-6  $\mu$ , 2-4-spored. Pleurocystidia none; cheilocystidia 23-34 x 2-4  $\mu$ , filamentous to sub-ventricose, often collapsed. Gill trama subparallel, hyphae 3-6  $\mu$  broad. Pileus trama thin, of loosely interwoven hyphae which are gelatinous in the upper half or more of the context. Epicuticular hyphae colorless, more or less <sup>flexuous or</sup> erect, crooked, 30-42 x 2-4  $\mu$ . Clamp connections none.

Singer (Lilloa 13:80) says that C. sulcatus shows the same macro- and microscopic characters as C. uber, and is undoubtedly synonymous with it. Further, he says C. uber is the southern form of C. mollis which it replaces in the tropics (Florida and the West Indies). In North Florida C. mollis is more common.

The description of macroscopic characters above are from Murrill; of the microscopic characters from the type.

CREPIDOTUS SULCATUS Murr.

Type

(Coll. by Underwood & Earle, No. 761, base of El Yunque Mt., Baracoa, Cuba, March, 1903.)

Spores 6-7 x 4.5-6  $\mu$ , ellipsoid in front view, slightly inequilateral in profile, smooth. Basidia 17-22 x 5-6  $\mu$ , 2-4-spored. Pleurocystidia none; cheilocystidia 23-34 x 2-4  $\mu$ , filamentous to sub-ventricose, often collapsed. Gill trama subparallel, hyphae 3-6  $\mu$  broad. Pileus trama thin, of loosely interwoven hyphae which are gelatinous in the upper half or more of the context. Epicuticular hyphae colorless, more or less erect. <sup>crooked, 30-42 x 2-4  $\mu$ .</sup> Clamp connections none.

Singer (Lilloa 13:80) says that C. sulcatus shows the same macro- and microscopic characters as C. uber, and is undoubtedly synonymous with it. Further, he says C. uber is the southern form of C. mollis which it replaces in the tropics (Florida and the West Indies). In North Florida C. mollis is more common.

CREPIDOTUS SULCATUS Murr.

Mycologia 5:29. 1913

Pileus 1-2 cm. broad, reniform, dimidiate, or resupinate, white, becoming ochraceous when dry, glabrous, base strigose, margin sulcate-striate.

Lamellae radiating from an eccentric or lateral point, crowded or subcrowded, rather broad, dark-ochraceous or pale-cinnamon.

Stipe none.

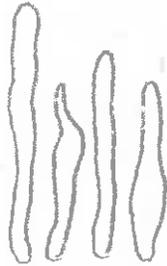
Spores 6-7 x 4.5-6  $\mu$ , ellipsoid in front view, slightly inequilateral in profile, smooth. Basidia 17-22 x 5-6  $\mu$ , 2-4-spored. Pleurocystidia none; cheilocystidia 23-34 x 2-4  $\mu$ , filamentous to sub-ventricose, often collapsed. Gill trama subparallel, hyphae 3-6  $\mu$  broad. Pileus trama thin, of loosely interwoven hyphae which are gelatinous in the upper half or more of the context. Epicuticular hyphae colorless, more or less erect, crooked, 30-42 x 2-4  $\mu$ . Clamp connections none.

Singer (Lilloa 13:80) says that C. sulcatus shows the same macro- and microscopic characters as C. uber, and is undoubtedly synonymous with it. Further, he says C. uber is the southern form of C. mollis which it replaces in the tropics (Florida and the West Indies). In North Florida C. mollis is more common.

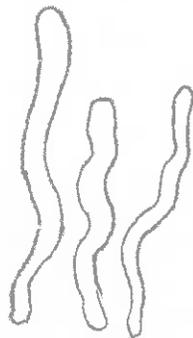
The description of macroscopic characters above are from Merrill; of the microscopic characters from the type.

*Pepidatus sulcatus* Murr.

Type



Ch - x 1000



Epicuticular hyphae - x 1000

CREPIDOTUS SULPHURINUS Imaz. & Toki

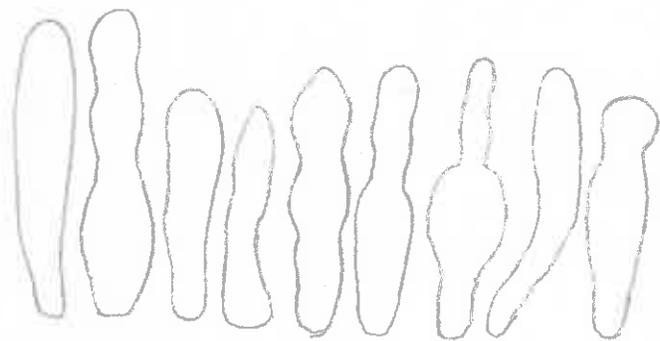
(H-25209)

Hongo-2165, Kyoto, Oct. 23, 1960.

Spores 6-9  $\mu$ , globose, echinulate to warty, a few ellipsoid, 8.5-10 x 6-8  $\mu$ , echinulate, dark-brown. Basidia 22-27 x 5-6  $\mu$ . Pleurocystidia none; cheilocystidia 30-42 x 7-10  $\mu$ , cylindrical, bottle-shaped, ventricose, or clavate. Gill trama subparallel, hyphae 3-5  $\mu$  broad. Pileus trama stratose: (1) inner zone densely interwoven, occupying 1/6 - 1/2 the trama; (2) outer zone loosely interwoven, 1/2 to 5/6 of the trama. Cuticle not differentiated. Clamp connections present.

*Pezidotus sulphureus* Imag. et Foki  
(H-25209)

Hongo-2165, Japan, Oct. 23, 1960



Ch. - x 1000

29144            CREPIDOTUS TENNESSENSIS sp. nov.

On decaying oak log, near Knoxville (Timberlake Road),  
July 4, 1966

Pileus 4-10 mm broad, sessile, cuneate to dimidiate,  
"cinnamon" with white fibrils, the margin plicate-striate.  
Odor and taste not distinctive.

Lamellae adnate, broad, close, pallid then brownish.

Stipe none, pileus laterally attached.

Spores 4.5-6(7) x 3.5-4.5  $\mu$ , ellipsoid to ovoid,  
punctate, brownish in 2% KOH. Pleurocystidia none;  
cheilocystidia 18-32 x 7-10  $\mu$ , pyriform to short-clavate,  
in clusters. Gill trama of broad, rather intricately  
interwoven, colorless hyphae. Pileus cuticle of dry repent  
hyphae, bearing colorless fibrils with clamp connections,  
and some with incrustations.

On decaying oak log, Knox County, near Knoxville,  
Tennessee, July 4, 1966, No. 29144, type (TENN).

This species is apparently related to C. Kauffmanii in  
which the cap is differently colored and with brown fibrils,  
and different cheilocystidia (clavate, filamentous, longer).  
The plicate margin finally becomes radially split.

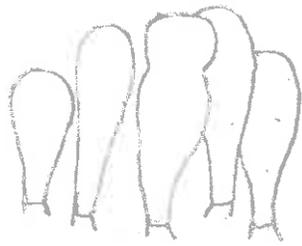
*Crepidotus tennesseensis* sp. nov.

Pileus 4-10 mm broad, sessile, cuneate to dimidiate, "cinnamon" with white fibrils, margin plicate-striate. Lamellae adnate, pallid then brownish, broad, close. Spores 4.5-6 x 3.5-4.5 $\mu$ , ellipsoid to ovoid, punctate. Pleurocystidia none; cheilocystidia 18-32 x 7-10 $\mu$ , pyriform to short-clavate. Pileus cuticle of dry repent hyphae. Clamp connections present. Specimen typicum in Herb. Univ. Tenn., lectum Knox County, near Knoxville, Tennessee, July 4, 1966, No. 29144 (TENN).

Pileus 4-10 mm latus, sessilis, cuneatus  
demum dimidiatus, "cinnamon" cum albis fibrillis,  
marginis plicato-striatus. Lamellae adnatae, pallidae  
deinde brunneae, latae, confertae. Sporae 4.5-6 x  
3.5-4.5 $\mu$ , ellipsoideae demum ovoideae, punctatae.  
Pleurocystidia desunt; cheilocystidia 18-32 x 7-10 $\mu$ ,  
pyriformia demum breviter clavata. Pilei cuticula  
ex hyphis sicca repentibus composita. Fibulae  
adsunt. Specimen typicum in Herb. Univ. Tenn.,  
lectum Knox County, prope Knoxville, Tennessee, July  
4, 1966, No. 29144 (TENN).

*Crepidotus Tennesseeensis* sp. nov.

~~29143~~  
~~29144~~ - Type  
29144



ch x 1000

CREPIDOTUS UBER (B. & C.) Sacc.

From Kew Herb.; collected by Charles Wright, Bonin Islands,  
Pacific Ocean (south of Japan).

Spores 6-8 x 4.5-5.5  $\mu$ , mostly 7  $\mu$  or less in length, ellipsoid, at times slightly inequilateral in profile, smooth, double-walled, thick. Basidia 28-34 x 6-7  $\mu$ , 4-spored. Pleurocystidia none; cheilocystidia 26-35 x 4-6  $\mu$ , clavate or obclavate, few, mostly collapsed against the gill edge. Gill trama subparallel, hyphae 3-5  $\mu$  broad. Pileus trama radially interwoven, appearing more or less as cells in tangential sections. Cuticular zone and pileus trama more or less uniformly gelatinous, no distinct gelatinous stratum on the surface, as in C. mollis.

The gills are broad and moderately close.

Pilát (1950) says it is similar to C. mollis but does not have a gelatinous layer on the pileus surface.

CREPIDOTUS UBER (B. & C.) Sacc.

Agaricus (Crepidotus) uber B. & C., Amer. Acad. Arts & Sci.  
Proc. 4: 117. 1860.

(Transl. from Latin)

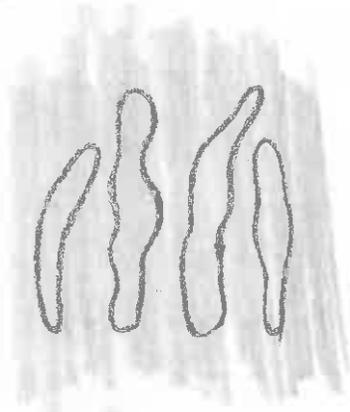
Pileus remaining reniform, viscid, white then luteo-fuscous.

Lamellae yellowish, then ferruginous from the spores, close.

In shady woods, Bonin Islands. - Allied to A. mollis and  
malachus.

*Orepidotus uber* (B. + C.) Acee.

"from Kew Herb (type?)



Ch. - x 1000

CREPIDOTUS UBER VAR. CYSTIDIOSUS <sup>var.</sup> ~~sp.~~ nov.

Pileus 8-15 mm broad, fan-shaped, reniform, whitish, drying ochraceous, glabrous, margin even. Context with a soft or slightly rubbery texture.

Lamellae narrow or medium broad, close or moderately so, white, finally ochraceous-brown.

Stipe none.

Spores 6-8 x 4-5  $\mu$ , ellipsoid, slightly or not at all inequilateral in profile, smooth. Basidia 22-28 x 6-7  $\mu$ , 2-4-spored. Pleurocystidia 26-35 x 6-8  $\mu$ , clavate or flask-shaped, appendiculate; cheilocystidia of two types: (1) hymenial, 33-50 x 4-10  $\mu$ , cylindrical, ventricose, fusoid, flask-shaped, often with a neck, at times with a brownish pigment; (2) tramal, gelatinous, 57-75 x 7-8  $\mu$ , filamentous with a clavate apex, at times appendiculate. Gill trama subparallel, hyphae branched, 4-10  $\mu$  broad. Pileus trama loosely interwoven, the hyphae branched, somewhat gelatinous, the gelatinization homogeneous throughout the pileus trama and cuticle, or the cuticle only slightly more gelatinized and then showing an indistinct band at the surface. Cuticle not differentiated, the surface bearing scattered to numerous erect, colorless hyphae, and pilocystidia which are more or less clavate, 22-50 x 3-7  $\mu$ . Clamp connections none.

Habit, Habitat, and Distribution - On hardwood log, Tennessee, July-

August.

Material Studied - TENNESSEE: Hesler 4101, type, from LaFollette, July 11, 1934; 10783.

Observations - This species differs from C. uber var. uber in having pleurocystidia; and from C. alabamensis in its peculiar gelatinization of the pileus and cuticle.

4101

CREPIDOTUS UBER var. CYSTIDIOSUS var. nov. Type

Pileus 8-15 mm broad, fan-shaped, reniform, whitish, drying ochraceous, glabrous, margin even. Context with a soft or slightly rubbery texture.

Lamellae narrow or medium broad, close or moderately so, white, finally ochraceous-brown.

Stipe none.

Spores 6-8 x 4-5  $\mu$ , ellipsoid, slightly or not at all inequilateral in profile, smooth. Basidia 22-28 x 6-7  $\mu$ , 2-4-spored. Pleurocystidia 26-35 x 6-8  $\mu$ , clavate or flask-shaped, appendiculate; cheilocystidia of two types: (1) hymenial, 33-50 x 4-10  $\mu$ , cylindrical, ventricose, fusoid, flask-shaped, often with a neck, at times with a brownish pigment; (2) tramal, gelatinous, 57-75 x 7-8  $\mu$ , filamentous with a clavate apex, at times appendiculate. Gill trama subparallel, hyphae branched, 4-10  $\mu$  broad. Pileus trama loosely interwoven, the hyphae branched, somewhat gelatinous, the gelatinization homogeneous throughout the pileus trama and cuticle, or the cuticle only slightly more gelatinized and then showing an indistinct band at the surface. Cuticle not differentiated, the surface bearing scattered to numerous erect, colorless hyphae, and pilocystidia which are more or less clavate, 22-50 x 3-7  $\mu$ . Clamp connections none.

Habit, Habitat, and Distribution - On hardwood log, Tennessee, July.

Materials Studied - TENNESSEE: Hesler 4101, type, from LaFollette, July 11, 1934.

Observations - This species differs from C. uber var. uber in having pleurocystidia; and from C. alabamensis in its peculiar gelatinization of the pileus and cuticle.

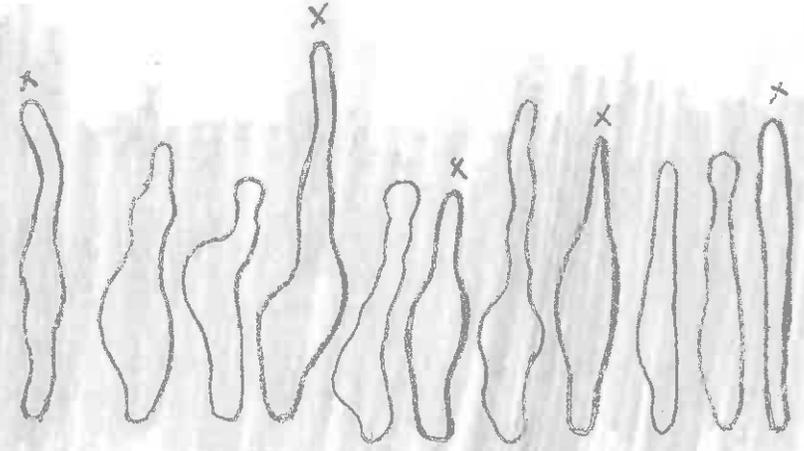
*Crepidotus* ~~laevius~~ ~~PK.~~  
uber var. cystidiosus

No. 4101

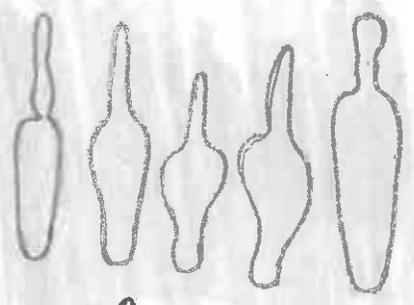
Type



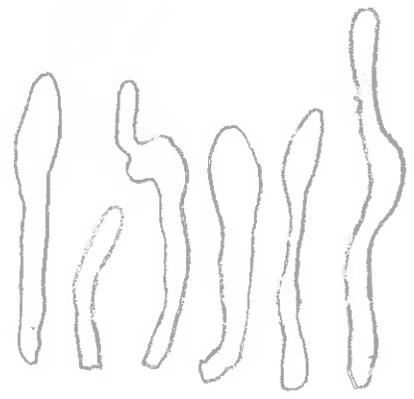
Basidium  
- x 1000



Ob - x 1000



Pl - x 1000



Piles x 1000

UBER VAR. CYSTIDIOSUS  
CREPIDOTUS H-4101

On decayed log, LaFollette, Tenn., July 11, 1934.

Pileus 8-15 mm broad, fan-shaped, reniform, whitish, drying ochraceous, glabrous, margin even. Context with a soft or slightly rubbery texture.

Lamellae narrow or medium broad, close or moderately so, white, finally ochraceous-brown.

Stipe none.

Spores 6-8 x 4-5  $\mu$ , ellipsoid, slightly or not at all inequilateral in profile, smooth. Basidia 22-28 x 6-7  $\mu$ , 2-4-spored. Pleurocystidia 26-35 x 6-8  $\mu$ , clavate or flask-shaped, appendiculate; cheilocystidia of two types: (1) hymenial, 33-50 x 4-10  $\mu$ , cylindric, ventricose, fusoid, flask-shaped, often with a neck, at times with a brownish pigment; (2) tramal, gelatinous, 57-75 x 7-8  $\mu$ , filamentous with a clavate apex, at times appendiculate. Gill trama subparallel, hyphae branched, 4-10  $\mu$  broad. Pileus trama loosely interwoven, the hyphae branched, somewhat gelatinous, the gelatinization/homogeneous throughout the pileus trama and cuticle, or the cuticle slightly more heavily gelatinized and then showing an indistinct band at the surface. <sup>of gelatinous hyphae</sup> Cuticle not differentiated, the surface bearing scattered to numerous erect, colorless hyphae, and pileocystidia which are more or less clavate, 22-50 x 3-7  $\mu$ . Clamp connections none.

This is near C. uber, which lacks pleurocystidia, and has brown, incrustated hyphae on the pileus. It differs from C. alabamensis in its peculiar gelatinization of the pileus and cuticle.

UBER VAR. CYSTIDIOSUS  
CREPIDOTUS H-10783

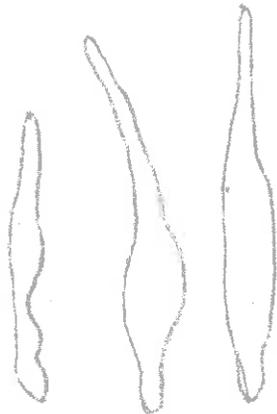
On trunk of dead ash, Knoxville, Aug. 15, 1937.

Pileus 10-25 mm broad, fan-shaped, glabrous, whitish, pallid or pale ochraceous when dried.

Lamellae close, moderately narrow, white then ochraceous-brown.

Spores 6-8 x 4-5  $\mu$ , ellipsoid, more rarely inequilateral in profile, smooth. Basidia 23-27 x 6-7  $\mu$ , 4-spored. Pleurocystidia, cheilocystidia, gill trama, pileus trama, and cuticle, as in H-4101.

*Orepidotus Paucens* (PK) Aacc.  
uber var. *cytidiorus*  
No. 10783



Hymenial Ch. x 1000

CREPIDOTUS UNICUS sp. nov.

Pileus 7-12 mm broad, cuneate to semi-orbicular, grayish-white, appearing somewhat fibrillose under lens, lubricous when wet, margin even.

Lamellae radiating from a lateral point, brown, narrow or medium broad, close or nearly subdistant.

Stipe none; pileus attached laterally, at times by a prolongation of one side.

Spores 4.5-5.5  $\mu$ , globose, more rarely subovoid, conspicuously punctate-echinulate, brown. Pleurocystidia none; cheilocystidia 17-40 x 7-10  $\mu$ , clavate, ventricose, often capitate or forked or knobbed and contorted. Gill trama subparallel, hyphae 5-8  $\mu$  broad. Pileus trama duplex: the inner one-tenth to one-fourth is composed of non-gelatinous, closely interwoven hyphae, the other three-fourths to nine-tenths of very loosely tangled hyphae. Cuticle of repent hyphae. Clamp connections none.

Habit, Habitat, and Distribution - On conifer bridge timber, Tennessee, August.

Material Studied - TENNESSEE: Hesler 20503, type, Alum Cave Parking Area, Great Smoky Mountains National Park, Aug. 9, 1952.

Observations - This is a unique species because of the combination of globose spores, stratose pileus trama, and lack of clamp connections.

CREPIDOTUS UNICUS sp. nov.

Pileus 7-12 mm broad, cuneate to semi-orbicular, grayish-white, appearing somewhat fibrillose under lens, lubricous when wet, margin even.

Lamellae radiating from a lateral point, brown, narrow or medium broad, close or nearly subdistant.

Stipe none; pileus attached laterally, at times by a prolongation of one side.

Spores 4.5-5.5  $\mu$ , globose, more rarely subvoid, conspicuously punctate-echinulate, brown. Pleurocystidia none; cheilocystidia 17-40 x 7-10  $\mu$ , clavate, ventricose, often capitate or forked or knobbed and contorted. Gill trama subparallel, hyphae 5-8  $\mu$  broad. Pileus trama duplex: the inner one-tenth to one-fourth is composed of non-gelatinous, closely interwoven hyphae, the other three-fourths to nine-tenths of very loosely tangled hyphae. Cuticle of repent hyphae. Clamp connections none.

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CREPIDOTUS UNICUS sp. nov.  
(No. 20503)

Type

Pileus 7-12 mm. broad, cuneate to semi-orbicular, grayish-white, appearing somewhat fibrillose under lens, lubricous when wet, margin even.

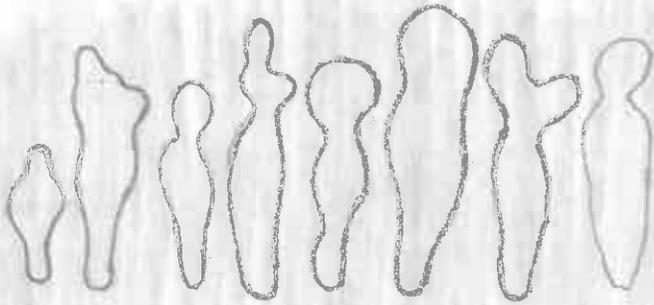
Lamellae radiating from a lateral point, brown, narrow, nearly subdistant.

Stipe none; pileus attached laterally, at times by a protraction of one side.

Spores 4.5 - 5.5  $\mu$ , globose, more rarely subovoid, conspicuously punctate-asperulate, brown. Pleurocystidia none; cheilocystidia 17-40 x 7-10  $\mu$ , clavate, ventricose, often capitate or forked or knobbed and contorted. Gill trama subparallel, hyphae 5-8  $\mu$  broad. Pileus trama unique; the inner one-tenth to one-fourth is composed of non-gelatinous, closely interwoven hyphae, the outer three-fourths to nine-tenths of very loosely tangled hyphae. Cuticle little or not at all differentiated, the surface hyphae more or less repent. Clamp connections none.

This has a very distinctly stratified pileus trama, which with globose makes it unique.

*Pepidostus* H-20503  
*unicus* sp. nov.



Ch - x 1000

CREPIDOTUS VARIABILIS (Fr.) Kummer var. VARIABILIS

Der. Führer in die Pilzk., p. 74. 1871.

Agaricus variabilis Fr., Syst, Myc. 1:275. 1821.

Claudopus variabilis (Fr.) Gill., Champ. Fr., p. 426. 1876. (8?)

Dochmiopus variabilis (Fr.) Pat., Hymen. Europe, p. 113. 1887.

Crepidotus cheimonophyllus (B. & Br.) Sacc., sensu Sydow,

Pileus 4-20 mm broad, resupinate to reflexed, attached laterally or dorsally, flabelliform, dimidiate or reniform, white, villose or tomentose, dry. Context moderately thin.

Lamellae radiating from a lateral point, white then ocher-flesh to pinkish-cinnamon, <sup>close or</sup>subdistant, medium broad, edges fimbriate.

Stipe none, or present when young and then very short, eccentric, and temporary.

Spores 4.5-6 x 2.5-3.5 (4)  $\mu$ , oblong-ellipsoid, at times subovoid, punctate, pale brownish. Basidia 20-28 x 5-6  $\mu$ , 2-4-spored. Pleurocystidia none; cheilocystidia (18) 28-50 x 5-16  $\mu$ , clavate, ventricose, at times capitate, occasionally forked or branched, more rarely subcuneate. Gill trama interwoven, hyphae 3-7  $\mu$  broad. Pileus trama interwoven. Cuticle of repent hyphae, bearing a turf of hyphae 3-4  $\mu$  broad, colorless, densely tangled, those on the

margin at times flexuous. Clamp connections present.

Singer (1947) has studied a collection by Desmazieres, No. 407, under the name of Agaricus variabilis Pers., distributed shortly after Fries validated Persoon's name - a collection Singer considers as the lectotype of this species.

Usually the spores are given as 5.5-7(7.5) x 2.7 -3 (3.5-4)  $\mu$ , minutely punctate (by Pilat, K. & R., Lange, Murrill).

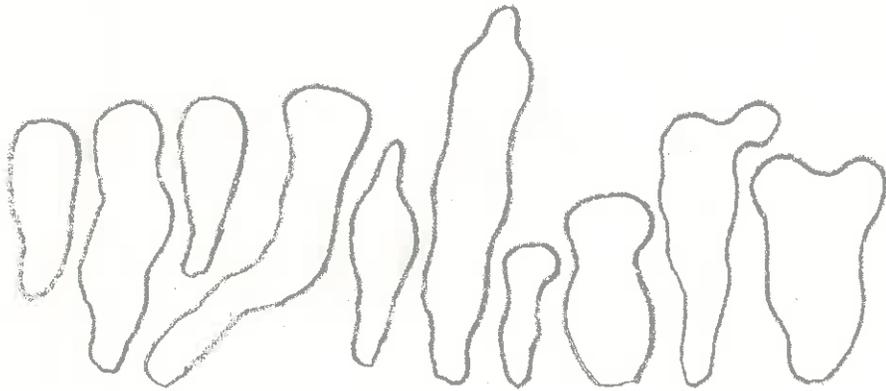
CREPIDOTUS VARIABILIS (Fr.) Kummer *var. variabilis*

Kew Herb., coll. E. M. W. 8-10-'36, Brookenhurst.

Spores 4-6 x 3-3.6  $\mu$ , oblong-ellipsoid, punctate.  
Cheilocystidia 18-50 x 7-16  $\mu$ , clavate, ventricose, more  
rarely subcuneate, often more or less capitate. Cuticle  
a broad trichodermium. Clamp connections on the trichodermial  
hyphae.

*Orepidotus variabilis* (Fr.) Kummer

Kew Herb., coll. E.M.W., 8-10-'36, Broekhuizen



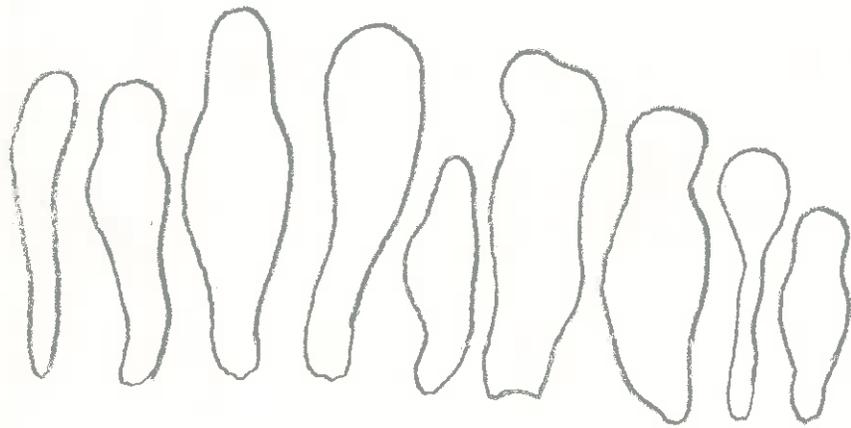
CREPIDOTUS VARIABILIS (Fr.) Kummer var *variabilis*

Kew Herb., Stevenage, 30/9/51, Dennis

Spores 4.5-6 x 2.5-3.5  $\mu$ , oblong-ellipsoid, punctate, pale brownish. Pleurocystidia none; cheilocystidia 28-48 x 6-14  $\mu$ , clavate, ventricose, at times capitate. Cuticle a broad (up to 700  $\mu$ ) trichodermium. Clamp connections on the trichodermial hyphae.

*Cepidotus variabilis* (Fr.) Kummer

Herb. Stereage, 30/9/51, Dennis



Ch - x 1000

CREPIDOTUS VARIABILIS (Fr.) Kummer var. *variabilis*

From Kew Herb., coll. EMW(akefield), 4.11.45,  
Berkshire.

Spores 5-5.5 x (2.8) 3-4  $\mu$ , ellipsoid to subovoid,  
punctate, brownish. Cheilocystidia not found. Gill trama  
interwoven, hyphae 5-8  $\mu$  broad. Pileus trama interwoven.  
Cuticle a broad trichodermium, of densely tangled, colorless  
hyphae, 3-4  $\mu$  broad. Clamp connections present on the  
trichodermial hyphae.

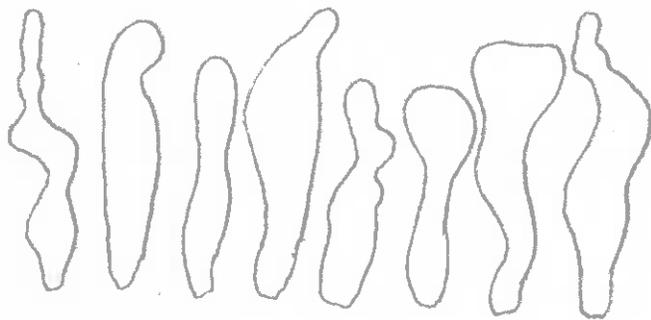
CREPIDOTUS VARIABILIS (Pers.ex Fr.) Kummer <sup>var.</sup> *variabilis*

H-24024: from Kew Herb., D. A. Reid.

Spores 4.5-5.8 x 2.8-4  $\mu$ , ellipsoid or oblong, punctate, brown. Pleurocystidia none; cheilocystidia 28-40 x 6-12  $\mu$ , clavate, ventricose, often crooked or contorted. Cuticle of repent hyphae, bearing a turf of tangled, colorless hyphae 2.5-4  $\mu$  broad. Clamp connections present.

*Oreoidotus variabilis* (Pers. ex Fr.) Kummer

(H-24024, from Kew)



Ch. x 1000

CREPIDOTUS VARIABILIS (Fr.) Kummer

not variabilis

(H-26105: from Bas, as C. pubescens Bres.)

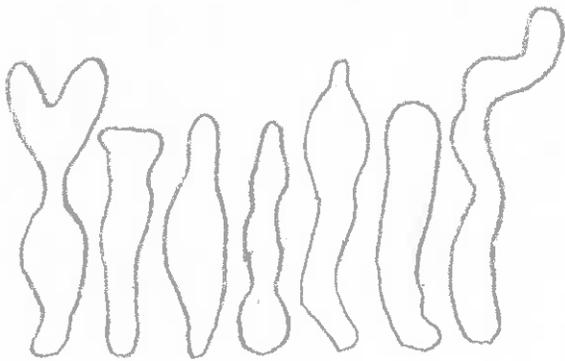
On Epilobium angustifolium, Holland, leg. & det. J.Doams, Oct.17,1957.

(Has much the gross appearance of C. pubescens as to colors, gill spacing, etc.)

Spores 5-6 x 2.6-3.4  $\mu$ , ellipsoid to slightly oblong-ellipsoid, punctate. Basidia 24-30 x 6-7  $\mu$ , 4-spored. Pleurocystidia none; cheilocystidia 30-48 x 6-9  $\mu$ , cylindrical, ventricose, often more or less flexuous, constricted, more rarely forked. Gill trama interwoven, hyphae 5-10  $\mu$  broad. Pileus trama interwoven. Cuticle of repent hyphae, bearing more or less a trichodermium, hyphae 2-4  $\mu$  broad. Clamp connections present.

*Pezizotus variabilis* (Fr.) Kummer

(Bas coll., as *P. pubescens*; H-26105)



ch - x 1000

CREPIDOTUS VERSUTUS (Pk.) Sacc.

TYPE

(from Forestburgh, N. Y. )

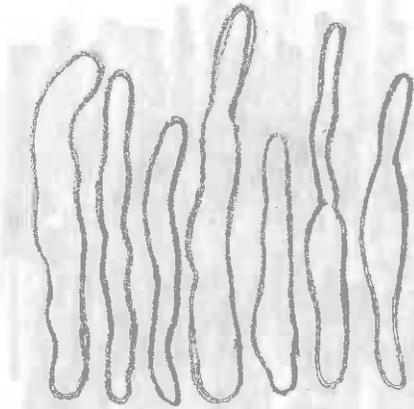
Spores 7.5-10 (11) x 4.5-5.7  $\mu$ , ellipsoid to subvoid, slightly inequilateral in profile, wall double, medium thick, faintly punctate (best seen in Melzer's; easily overlooked in water or 2% KOH mounts), yellowish-brown under microscope. Basidia 25-33 x 6-7  $\mu$ , 4-spored. Pleurocystidia none; cheilocystidia 3.4-5.4 x 4-7  $\mu$ , hyphoid, cylindrical, subventricose, or bottle-shaped, numerous when found (absent in some sections). Gill trama undulating subparallel to slightly interwoven, hyphae (2) 4-7  $\mu$  broad. Pileus trama of interwoven hyphae. (Cuticle a zone of interwoven hyphae (zone 20-40  $\mu$  thick) or such a zone not conspicuous, the surface bearing numerous, long, colorless, slender epicuticular hyphae 2.5-5  $\mu$  broad - a trichodermium (tangled turf). Clamp connections present on the hyphae forming the tomentum at the point of attachment, but none on the epicuticular hyphae.

Singer (Lilloa 13:81) says "all hyphae without clamp connections."

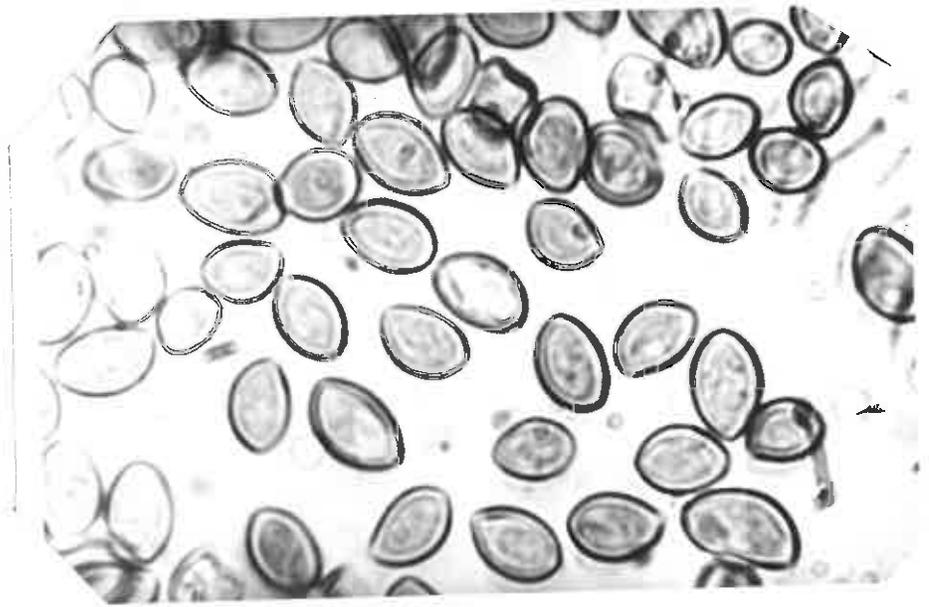
Near C. epibryus, subverrucisporus, lundellii, and bresadolae (smooth spores)--all of which have clamp connections.

*Crepidotus versutus* (PK.) Race.

Type



Ch - x 1000



*Crepidotus versutus* Pk. - Spores of type

CREPIDOTUS VERSUTUS (Pk.) Sacc.

PHOTO

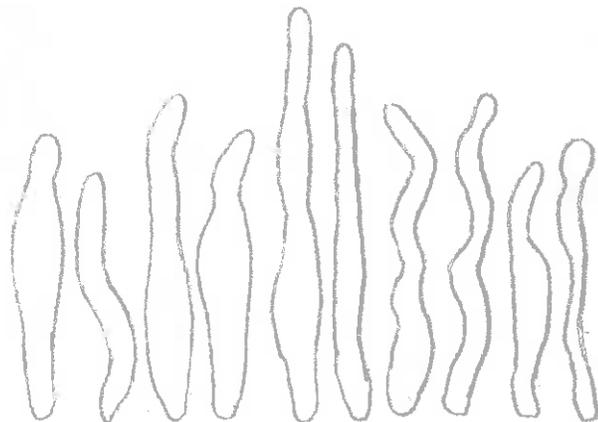
(H-21030)

Pileus 6-14 mm broad, at first resupinate, then reflexed, flabelliform or dimidiate, dry, white, villose-tomentose, margin even, incurved. Context thin, soft, white; odor and taste mild.

Lamellae radiating from an eccentric or lateral point, rather broad, subdistant, white at first, finally tinged rusty, many short, edges entire.

Spores 8-11 x 4.5-5.5(6)  $\mu$ , ellipsoidal, inequilateral in profile, obscurely punctate. Basidia 25-33 x 7-8  $\mu$ , 4-spored. Pleurocystidia none; cheilocystidia 33-55 x 4-8  $\mu$ , clavate, cylindric, to slender bottle-shaped, often with a neck. Gill trama subparallel, hyphae 4-10  $\mu$  broad. Pileus trama of interwoven hyphae. Cuticle not always sharply differentiated, the surface bearing a turf of colorless hyphae, 3-5  $\mu$  broad. Clamp connections none.

*Crepidotus ~~versutus~~ (Pk.) Saer.*  
No. 21030



Ch - x 1000

21030 - *Crepidatus* ~~versutus~~ ~~PK~~.

29912

CREPIDOTUS *vernatus* (Pk.) Sacc.

On fallen twig, Norris Dam, July 30, 1967

Pileus white, densely white-silky.

Stipe none, or at first short, then disappearing.

*Crepidotus viscidiphyllus* sp. nov.

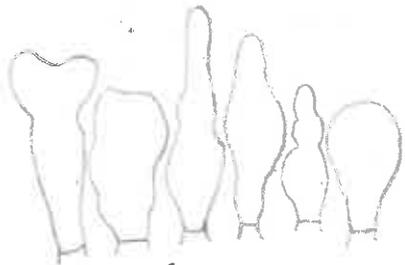
Pileus 4-8 mm broad, whitish, becoming cream tinted, subglabrous, viscid, margin even. Lamellae adnate, at first white, then pale brown, narrow, subdistant, edges gelatinous. Stipe present at first, ~~then~~ eccentric or lateral, disappearing. Spores 6-7.5(8) x 4-4.5 $\mu$ , ellipsoid, minutely punctate. Pleurocystidia none; cheilocystidia 24-38 x 5-10 $\mu$ , bottle-shaped (ampullaceous), somewhat gelatinous. Pileus cuticle an ixocutis. Clamp connections none. Specimen typicum in Herb. Univ. Tenn., lectum Cades Cove, Tennessee, L. R. Hesler No. 29213 (TENN.).

July 20, 1966

Pileus 4-8 mm latus, albidus deinde colore cremes tinctus, subglabrosus, viscidus, margine planus. Lamellae adnatae, primo albae deinde pallido-brunneae, angustae, subdistantes, marginibus gelatinosae. Stipes primo adest, eccentricus vel lateralis deinde evanescens. Sporae 6-7.5(8) x 4-4.5 $\mu$ , ellipsoideae, perparvulum punctatae. Pleurocystidia desunt; cheilocystidia 24-38 x 5-10 $\mu$ , ampullacea, nonnihil gelatinosa. Pilei cuticulae fibulatae desunt. Specimen typicum in Herb. Univ. Tenn., lectum Cades Cove, Tennessee, L. R. Hesler, July 20, 1966, no. 29213 (TENN.).

*Crepidula viridiphyllus* sp. nov.

35554 - Type



ch x 1000

29213

CREPIDOTUS *ruaidiphylus* sp. nov.

On stump, Cades Cove, July 20, 1966.

Pileus white to obscurely cream in age, glabrous. Lamellae white.

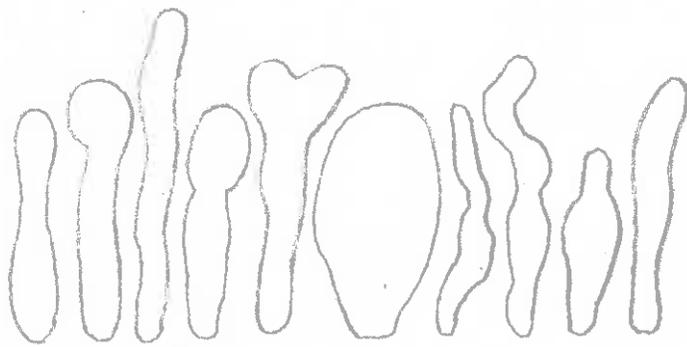
Stipe none; strigose at attachment of tubercle.

*Crepidotus viridiphyllus* sp. nov.

7  
1 → Pileus 2-5 mm broad, convex, then expanded, white or whitish, dry, fibrillose, at first laterally stipitate, stipe disappearing, margin even. Lamellae radiating, at first pale greenish, then brownish, distant, medium broad. Spores 4-5.5 $\mu$  in diameter, globose or subglobose, punctate-echinulate. Pleurocystidia none; cheilocystidia 16-30 x 6-10 $\mu$ . Pileus cuticle dry, fibrillose. Clamp connections none. (Fibulatae desunt.) Specimen typicum in Herb. Univ. Tenn., lectum Cades Cove, Tennessee, R. H. Petersen, Ms. July 22, 1970, No. 35554 (TENN).

Pileus 2-5 mm latus, convexus deinde extensus, albus vel albidus, siccus, fibrillosus, in primis lateraliter stipitatus; deinde stipes evanescit, margine planus, lamellae se radiantes, primo pallido-subvirides, deinde brunneae, distantes, medio-latae. Spores 4-5.5 $\mu$  diametro, globosae vel subglobosae, punctato-echinulae. Pleurocystidia desunt; cheilocystidia 16-30 x 6-10 $\mu$ . Pilei cuticula sicca, fibrillosa. Fibulatae desunt. Specimen typicum in Herb. Univ. Tenn., lectum Cades Cove, Tennessee, R. H. Petersen, July 22, 1970, No. 35554 (TENN).

*Opeidotus ~~serotus~~ (Pk) Saec.*  
*vulgaris* sp. nov.  
No. 14173



Ch - x 1000

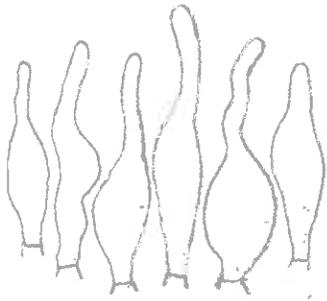
*vulgaris* sp. nov.  
CREPIDOTUS H-14173

Spores 6-7.5 ~~4.5~~ x 4.5-5.5  $\mu$ , ellipsoid, inequilateral in profile, punctate. Basidia 23-28 x 5-6  $\mu$ , 4-spored. Pleurocystidia none; cheilocystidia 25-45 x 4-8 (16)  $\mu$ , cylindrical, clavate, ventricose, rarely vesiculose, apices rounded, capitate, or more rarely forked. Gill trama subparallel, hyphae 3-7  $\mu$  broad. Pileus trama interwoven. Cuticle of repent hyphae, bearing a turf of colorless, more or less erect, slender (2-3.5  $\mu$ ) hyphae, the terminal elements at times somewhat cystidioid, more rarely forked. Clamp connections present.

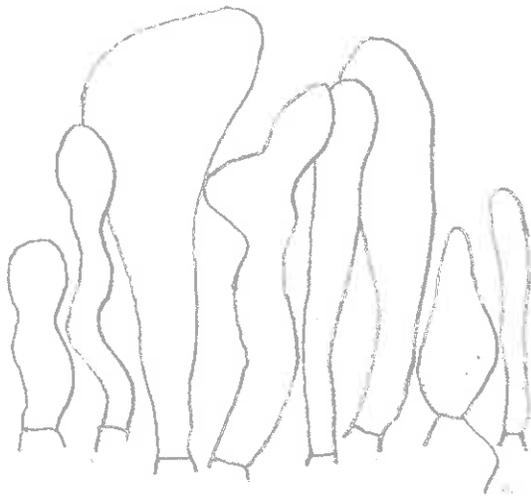
*lamellae close, broad.*

*Orepidotus viscidiphyllus* sp. nov.

29213

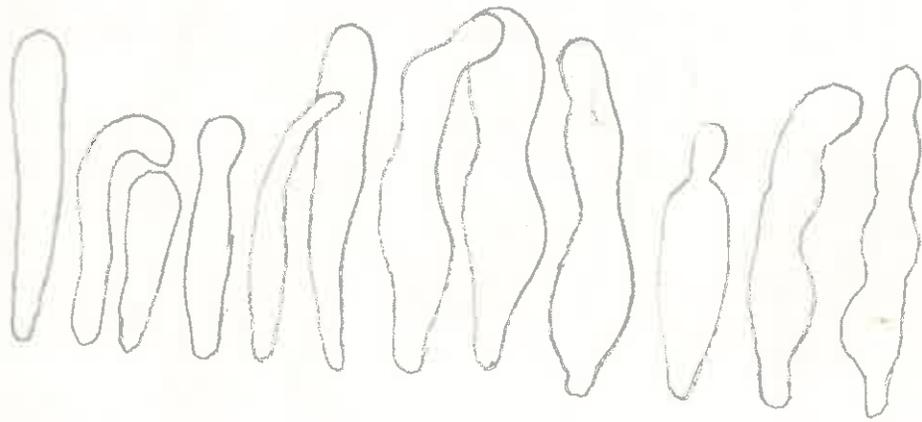


Ch x 1000



Pleo - x 1000

*Crepidotus* H-14198  
*vulgaris*



Ch - x 1000

*vulgaris*  
CREPIDOTUS H-17638

On spruce log, Indian Gap, July 7, 1946.

Pileus white, villose, more or less glabrescent.

Spores 6-7.5 (8) x 4-4.7  $\mu$ , ellipsoid, punctate.

Clamps present.

All other characters as in H-14173 ~~(H-14173)~~

*vulgaris* sp. nov.

CREPIDOTUS H-14198

On balsam tree trunk, Clingman's Dome, leg. Hesler, June 4, 1942.

Pileus 1-4 cm. broad, sessile, white, dry, fibrillose, margin even. Context thin, pliant; odor and taste mild.

Lamellae radiating, broad, ventricose, close, white becoming brown, edges fimbriate.

Stipe none.

Spores 6-8 x 5-6  $\mu$ , broadly ellipsoid, punctate to echinulate (at times up to 1  $\mu$  high), dingy yellowish-brown in KOH. Basidia 26-33 x 8-10  $\mu$ , 2-4-spored. Pleurocystidia none; cheilocystidia 25-50 x 4-11  $\mu$ , fusoid-ventricose, with rounded obtuse apices, varying to ventricose-mucronate or capitate above a tapered pedicel, others subcylindric, clavate, or almost vesiculose, more rarely forked, at times constricted. Gill trama interwoven, hyphae 5-10  $\mu$  broad. Pileus trama interwoven, hyphae 6-14  $\mu$  broad. Cuticle repent bearing a turf of colorless hyphae, 2-4  $\mu$  broad, <sup>Clamp</sup> connections present.

some of which are crooked,  
but none coiled.

29198

CREPIDOTUS

Cades Cove, on stump, July 20, 1966

Pileus white, becoming brown from spore-deposits,  
gelatinous, striate.

29911

CREPIDOTUS *nephrodes* (B + V) Sacc.

On fallen limbs, Norris Dam, July 30, 1967

Pileus white, hygrophanous, with a few brown scales especially behind.

Stipe none.

29994

CREPIDOTUS

Dogwood bark, Horse Cove, August 26, 1967

Pileus white-silky; white-hirsute at base.

29996

CREPIDOTUS

Deciduous log, Horse Cove, August 26, 1967

Pileus white, glabrous, obscurely striate.