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Hebeloma Notebook 10

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Kauffman: 9-11-22

HEBELOMA

On dried mud, in creek bottom, leg. Wehmeyer, det. Kauffman as "H. subhiemale" sp. nov., Pond d'oreille National Forest, Copeland, Idaho. September 11, 1922. (Kauffman says: "see description" (but not found), also Photo).

Notes by Hesler

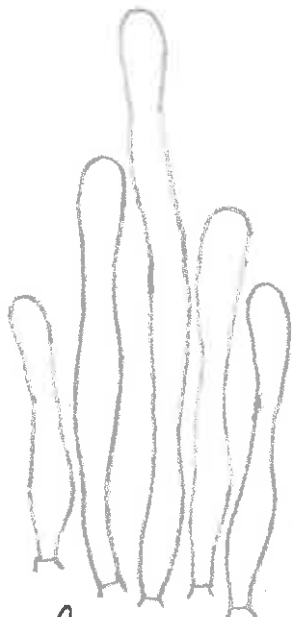
Spores 11-12(13.5) x 5.5-7 μ , inequilateral in profile, subfusoid or subellipsoid in face view, wall 0.3 μ thick, rugulose, pale yellowish brown in 2% KOH, pale pinkish brown in Melzer's reagent, a few with a slight "nose". Basidia 28-32 x 7-8 μ , 4-spored. Pleurocystidia none; cheilocystidia 35-78 x 5-6 μ , subcylindric, apices not or only slightly enlarged, ventricose below. Gill trama of slender, subparallel hyphae. Pileus trama radial. Pileus cuticle an ixocutis. Hypodermium cellular. Stipe cuticle of pallid, angular, thick-walled hyphae. Caulocystidia in scattered tufts, similar to cheilocystidia.

This is labelled by Kauffman as "H. subhiemale sp. nov." which he thought was the same as his No. 2429, and which he labelled as H. subhiemale sp. nov. The two, however, are entirely different in their micro features: Kauffman's No. 2429 (dried) is much larger, much paler; it has spores 10-14(16.8) μ long, slender-sublimoniform to fusoid; the cheilocystidia are entirely different in shape: they are often slender and strongly capitate, and broader, the hypodermium is hyphoid.

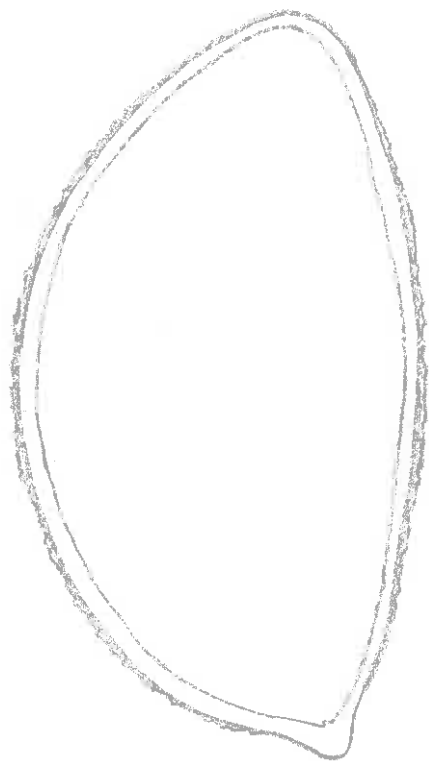
I have not found his notes on macro characters of this (the Copeland, Idaho collection).

Hebeloma

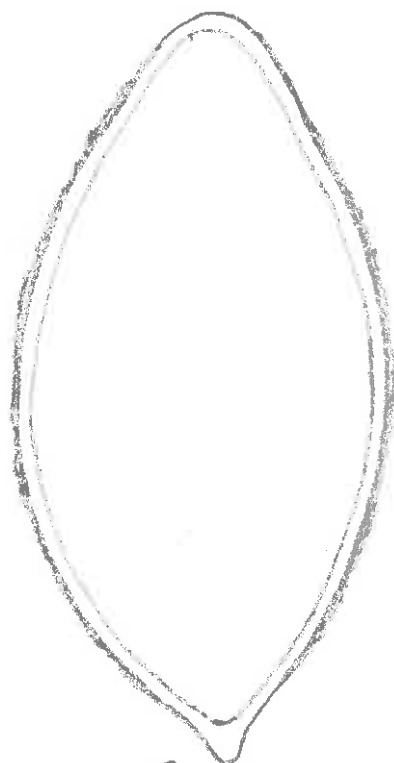
Pond d'oreille Nat. Forest, Copeland, Idaho, Kauffman
Sept 11, 1922



Ch x 1000



Spore



Face

Spores x 8000

Hebeloma

35850

Cherokee National Forest, Tellico Plains, Tennessee, leg.
A. J. Sharp, September 29, 1975

Pileus 3 cm broad, convex, very broadly and obtusely umbonate, central area "tawny olive", elsewhere paler, appressed-fibrillose, viscid. Context white; odor raphanoid, taste bitterish.

Lamellae adnexed, dull brown (not matched), close, broad, lamellulae numerous.

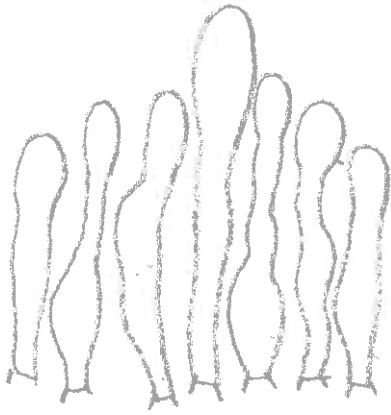
Stipe 3 cm x 6 mm, white, unchanging, ^{glabrous} equal, solid, no bulb. Veil none.

Spore deposit: near "Dresden brown"; spores 10-13(14.5) x 4.5-5.5 (6.5) μ , some with a slight "nose"; inequilateral in profile, subfusoid to sublimoniform in face view, minutely rugulose to nearly smooth (in same field, from deposit), wall rather thin (more or less 0.2 μ), yellowish brown in 2% KOH, Pleurocystidia none; cheilocystidia 30-50 x 5-8 μ , somewhat variable: cylindric-capitate, flask-shaped, sometimes more or less ventricose at the middle or below, clustered. Gill trama subparallel. Pileus trama of more or less radially-disposed hyphae. Pileus cuticle an ixocutis. Hypodermium of brown, interwoven hyphae (cut-ends give a cellular appearance). Stipe cuticle of dry, repent hyphae. Caulocystidia none.

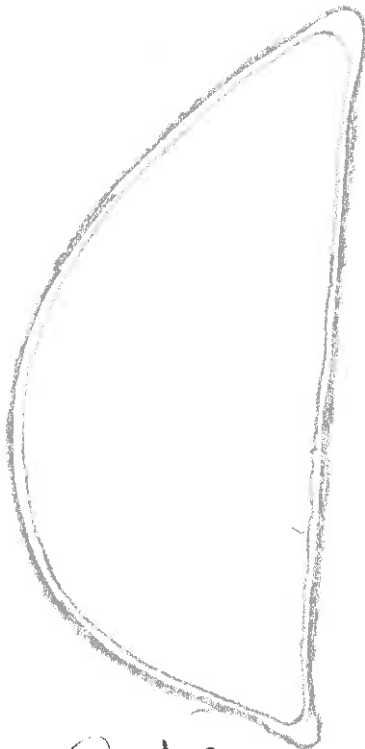
Near H. rivulosum, which has different spore-ornamentation, and its hypodermium is cellular; also near H. cameracense.

Nebeloma

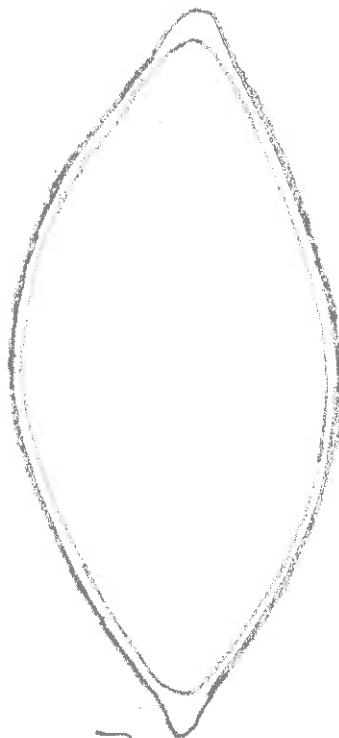
35850



Ch x 1000



Profile



Face

Spores x 8000

*Notes from Smith
to come*

Smith - 36753

HEBELOMA

On grassy ground, under spruce, Trinidad, California, leg.

Smith, December 16, 1936

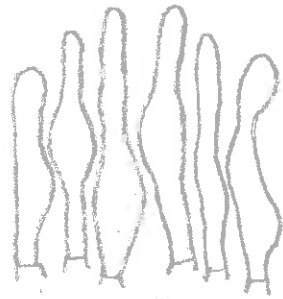
Notes by Hesler

(Smith's label says "card," but no notes were found.)

Spores 7.5-9 x (4.5)5-5.5 μ , inequilateral in profile, subovoid in face view, wall 0.3-0.4 μ thick, rugose to rugulose, obscurely calyptrate in some, moderately yellow brown in 2% KOH. Basidia 24-28 x 6-7 μ , 4-spored. Pleurocystidia none; cheilocystidia 26-35 x 4-7 μ , ventricose to subcylindric, neither abundant nor conspicuous. Gill trama of subparallel hyphae, 5-10 μ broad. Pileus trama radial. Pileus cuticle an ixocutis. Hypodermium of brown cells. Stipe cuticle a zone (200-320 μ thick) of pallid-grayish thick-walled hyphae; caulocystidia scattered, clavate. Clamp connections not found. (I can not be certain of the number: is it 36753 or 56753?)

Hydeloma

Sm³ - 56753



Ch x 1000



Profile

Face

Spms x 8000

Hebeloma

37518

in humus, Cherokee National Forest, Tellico Plains, Tennessee,
September 29, 1975

Pileus 5 cm broad, "ochraceous buff" except the slightly paler margin, viscid, appressed-fibrillose, even. Context white, thin, odor faintly raphanoid, taste bitter.

Lamellae adnexed, "cinnamon", close, rather broad, edges more or less denticulate.

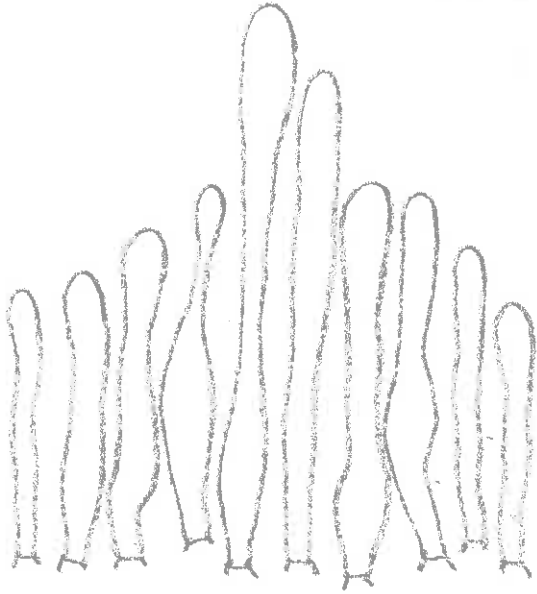
Stipe 6 cm x 7 mm, white, dry, equal, apex minutely scurfy, elsewhere longitudinally fibrillose-appressed, striate. Veil none.

Spores (8.5)9-11 x 5.5-7 μ , inequilateral in profile, broadly subfusoid to subellipsoid in face view, often with a slight "nose", rugose, sometimes slightly calyptrate, wall 0.4 μ thick, yellowish brown in KOH. Pleurocystidia none; cheilocystidia 34-74 x 4-11 μ , cylindrical, at times the apex subclavate or subcapitate, often more or less ventricose below, in clusters. Pileus cuticle an ixocutis. Hypodermium of rather large cells. Stipe cuticle of dry, repent hyphae. Caulocystidia somewhat scattered or in clusters, 56-118 x 6-9 μ , similar to cheilocystidia. Clamp connections on the cuticular hyphae.

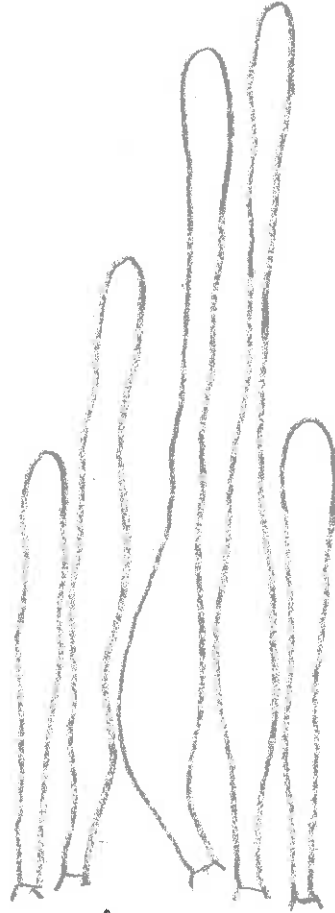
Somewhat near H. rivulosum, but in the latter species the spores are larger, with coarser ornamentation, and more limoniform in shape.

Hebeloma

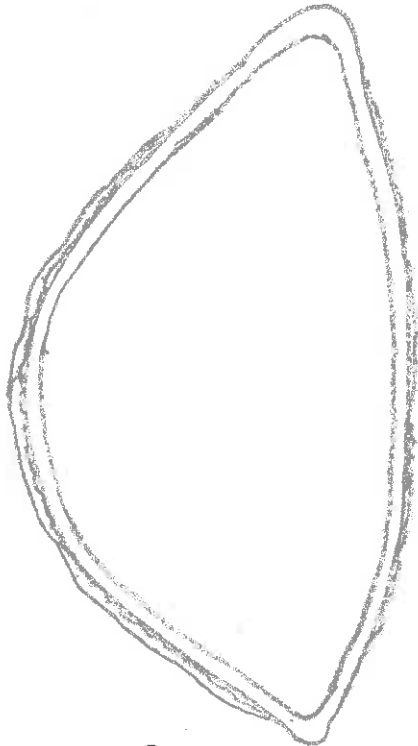
37518



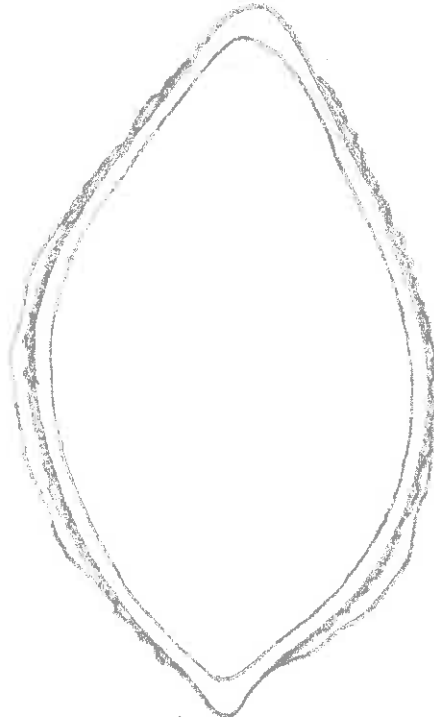
Ch x 1000



Caulo - x 1000



Profile



Face

Spores x 8000

40044

Hebeloma

On soil, pine woods, John Sevier Hwy.,

leg. Ken McFarland, Oct. 31, 1975.

Pileus 2-3 cm broad, expanded-plane, viscid, glabrous, shining, central portion "ochraceous buff," elsewhere "light ochraceous buff," margin even. Context white, pale ochraceous buff beneath the cuticle; odor raphanoid, taste promptly bitter, with a raphanoid after-taste.

Lamellae slightly adnexed, "light vinaceous cinnamon," close, medium broad, lamellulae short, of 3-4 ranks, alternating with the long gills, edges even.

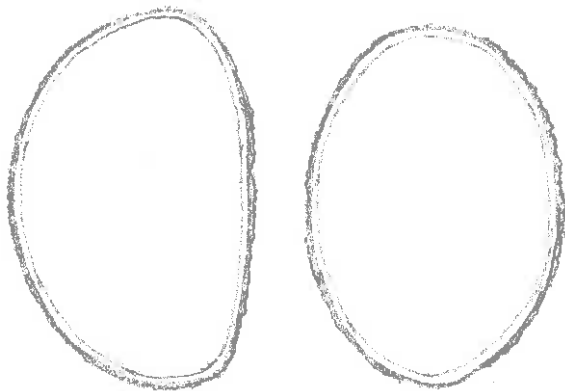
Stipe 4.5-6.5 cm long, 5-7 mm thick, white, with scattered fibrils (stained brown from spores), tubular-stuffed, base slightly bulbous (up to 12 mm diam.). Veil none observed.

Spores 5.5-6 x 3.5-4 μ , a few obscurely inequilateral, ellipsoid in face view, rugulose, wall thin (0.2 μ or less), yellowish brown in 2% KOH, no germ-pore. Pleurocystidia and cheilocystidia none found. Pileus trama of radial hyphae. Pileus cuticle an ixocutis. Hypodermium a zone of cells. Stipe cuticle of dry, repent hyphae. Caulocystidia none found.

The habit of growth, pileus color, and raphanoid odor, the viscid pileus and dry stipe all suggest Hebeloma. The spores are small, and not inequilateral or only obscurely so -- all suggesting it might not be an Hebeloma. The material is limited, and should be collected again.

Nebeloma (?)

40044



Profile

Face

Spores x 8000

40416

HEBELOMA

~~86960a~~

his number 86960a

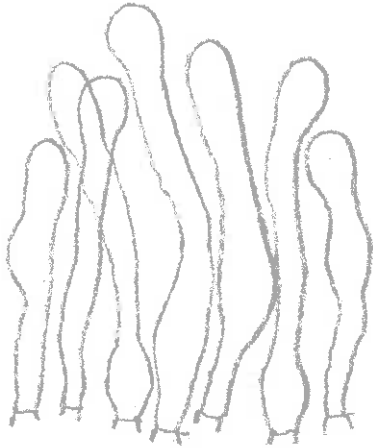
~~Smith's~~ Smith's Colorado collections (1976); no notes found in Smith's shipment to me. On his label for 86960, he says something (not legible) about 86960, and to check spores and cystidia. Ashcroft, Colorado
leg. Sm - 86960a, July 30, 1976.
Hesler's Notes on 86960a

Spores 9-13.5 x 5.5-7 μ , inequilateral in profile, subovoid, subamygdaliform, to sublimoniform in frontal view, obscurely rugulose, wall only medium thick, occasionally the apical end with a slight "nose", yellowish brown in KOH. Pleurocystidia none; cheilocystidia 32-52 x 5-9 μ , subcylindric to long-clavate, the apices usually only slightly ~~enlarged if faintly or slightly~~ subcapitate, Gill trama of slender, subparallel hyphae. Pileus trama of interwoven hyphae. Pileus cuticle an ixocutis or at times a slight ixolattice. Hypodermium a zone of brownish cells, 12-22 x 13-18 μ , somewhat variable in shape. Stipe cuticle of repent, dry hyphae. Caulocystidia more or less in tufts, similar to cheilocystidia, 48-115 x 3-5 μ , slender.

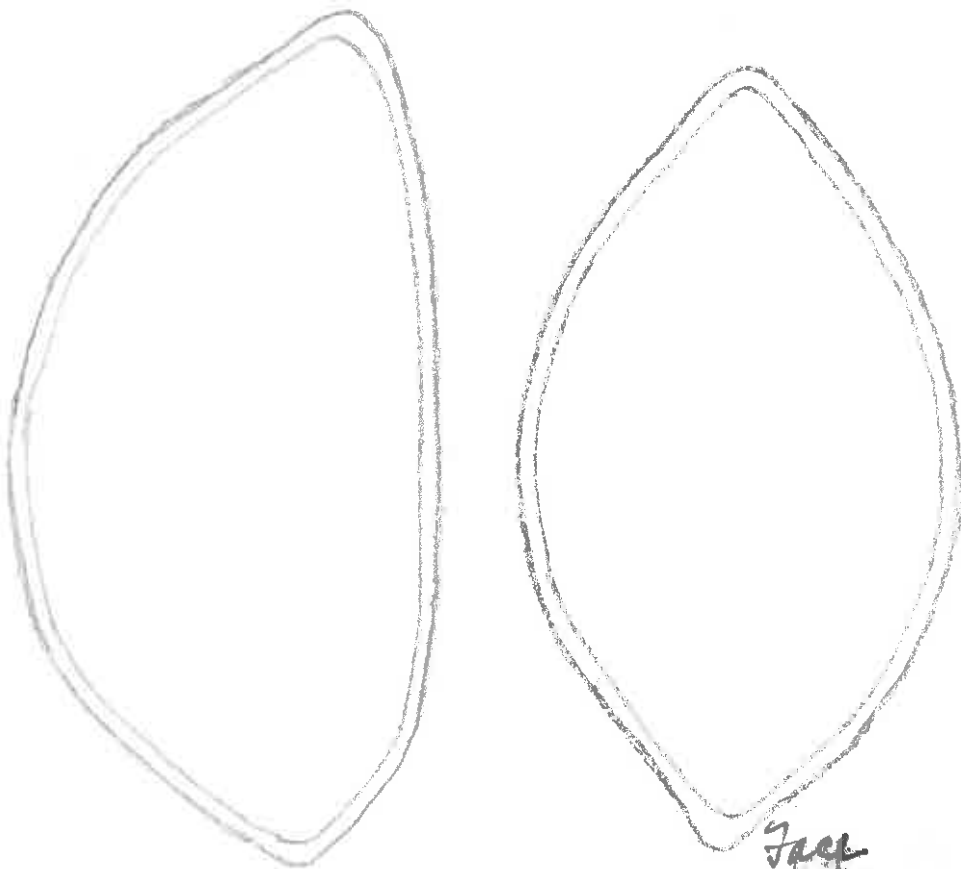
↑
extending up to
pileus about 50%.

Hebeloma

НОНІА⁶ (8m-86960)_{La}



Ch x 1000



Profile

Spores x 8000

Face

40417

HEBELOMA

(Smith did not find notes)

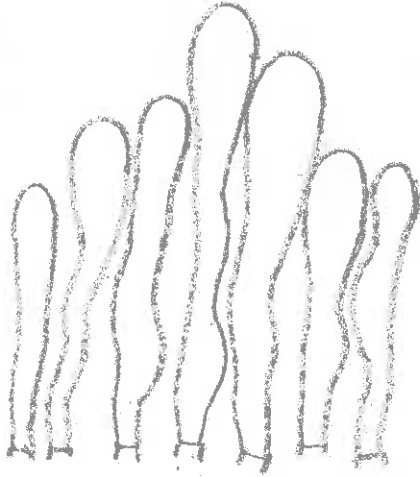
(Sm-86966) under aspen, leg. Mitchel & Smith, Ashcroft, Colorado, July 30, 1976

Notes by Hesler

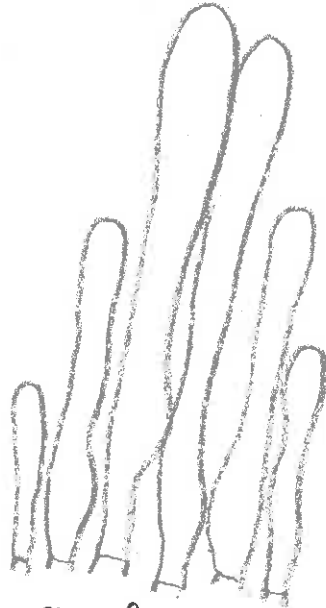
Spores 9-11 x 5.5-7 μ , inequilateral in profile, broadly ellipsoid to ellipsoid or subvoid in face view, wall medium thick, rugulose, yellowish brown. Pl none; ch 36-58 x 5-11 μ , subclavate, at times obscurely subcapitate, ~~ventricose~~ ^{at} ^{ventricose} times at the middle or below, in tufts. Gill trama nearly parallel ^{narrow} hyphae, ~~narrow~~. Pileus cuticle of brown hyphae, an ixotrichodermium. Hypodermium/~~hyphae~~ but very poorly developed, ~~at times xxxxxxxxly differentiated~~ Caulocystidia similar to cheilocystidia, 23-74 x 3-10 μ , more or less in tufts.

Hebeloma

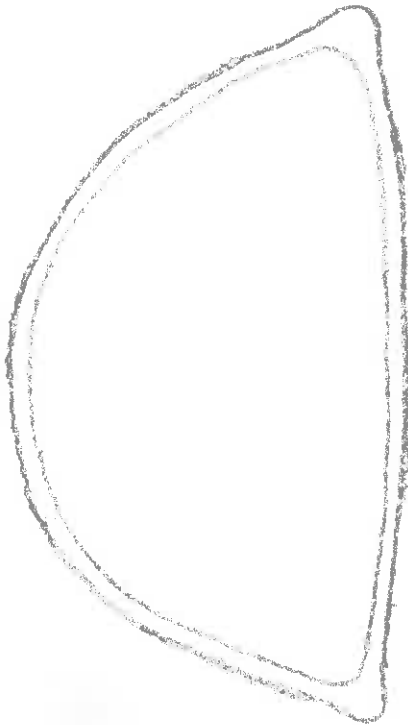
H0417 (Sm. 86966)



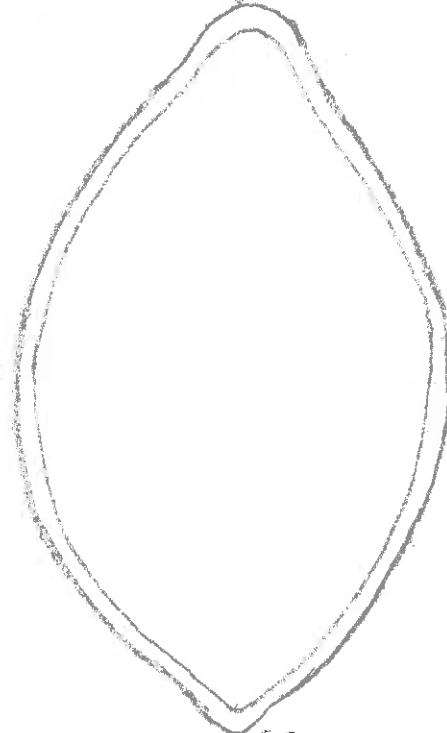
Ch x 1000



Caulo x 1000



Profile



Face

Spores x 8000

No notes

Smith - 62514

HEBELOMA

Lake Takkinitch, under spruce, November 22, 1935 (label says:

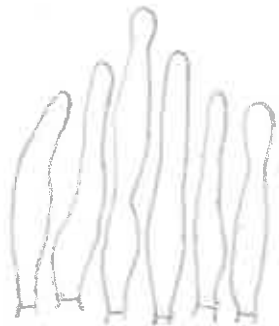
"Card"; but no notes found)

Notes by Hesler

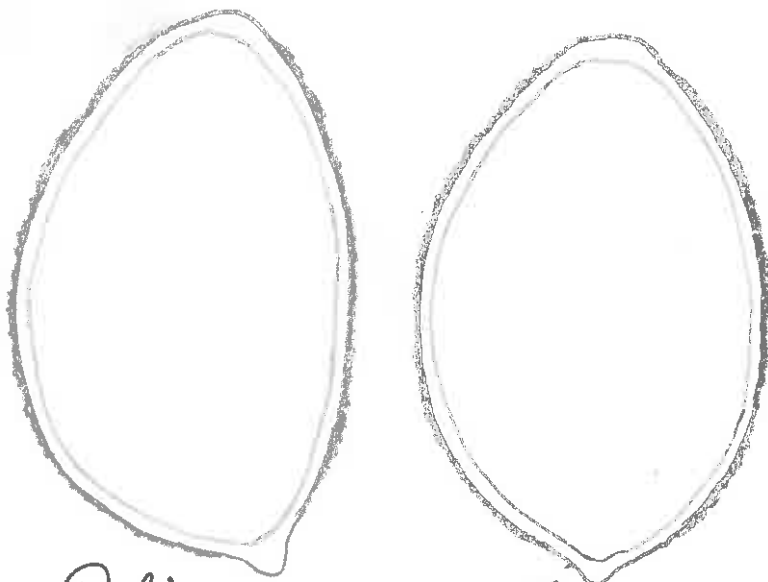
Spores 8-9.5 x 5-5.5(6) μ , slightly inequilateral in profile, subfusoid to subvoid in face view, wall 0.3 μ thick, rugose to rugulose, apices sometimes subtruncate, yellowish brown in 2% KOH. Basidia 26-33 x 6-7 μ , 4-spored. Pleurocystidia none; cheilocystidia rather inconspicuous, 28-40 x 3-6 μ , ventricose to subventricose, apices sometimes subcapitate. Gill trama of subparallel hyphae, 4-7 μ broad. Pileus trama of radially-disposed hyphae. Pileus cuticle an ixocutis, the hyphae slender (1.5-2.5 μ), with scattered clamp connections. Hypodermium a brown cell-zone. Stipe cuticle a pallid zone of dry, thick-walled hyphae; caulocystidia scattered, similar to cheilocystidia.

Hebdoma

Sm. 62514



Ch x 1000



Profile

Face

Spores x 8000