

Coenogonium Ehrenb.
(GYALECTACEAE)

After Uyenco, 1963

Rev. 4/96

Thallus a loosely felted, spongy filamentous mass forming a mound or disk, either adnate to protruding and \pm shelf-like or pendant from the substrate, homoiomerous; hyphae entangling the photobiont (forming a network on the surface), branched, septate. Ascocarp an apothecium, laminal, marginal, or terminal, sessile to short-stalked, biatorine, round, pale to bright yellow or pinkish; margin proper, pseudoparenchymatous, lacking a medulla; paraphyses loose, unbranched, non-septate; asci unitunicate, thin-walled, 1+ blue, 8 spored; spores simple or 1(-3)-septate, hyaline, uniformly thin walled, ellipsoid, fusiform bacilliform or acicular.

Pycnidia globose, sessile or short stipitate; fulcrum exobasidial, bushy; pycnosporos fusiform, straight, simple. Photobiont Trentepohlia or Physolinum. Usually on bark. Tropical-subtropical.

Sterile taxa are excluded (see Santesson, 1952).

Fink's descriptions differ somewhat from those of Uyenco, and more info. from the latter source is needed.

1. Spores simple (according to Uyenco?; often 1-septate according to Malme), ellipsoid (apices acute according to Malme), 6-10 x 2-3(-3.5) μ m. Apothecia 0.3-0.8 mm across, subsessile; disk flesh-colored to yellow; exciple whitish; asci cylindrical-clavate. Thallus adnate, pannose, expanded, yellow-green to greenish gray; hyphae 2-2.5 μ m wide, rather thick-walled, extending irregularly and forming a loose network over the irregularly spreading photobiont (Trentepohlia). Excipulum pseudoparenchymatous. Subhymenium hyaline, composed of rather thick-walled hyphae, irregularly and strongly entangled. Hymenium ca. 60 μ m, 1+ blue then dirty reddish. Paraphyses simple, 1-1.5 μ m thick, apices somewhat thickened. Asci subcylindrical, ca. 6 μ m thick. Spores 8, irregularly biserial. Algae 14-22 μ m thick. On trees, West Virginia to Florida, west to Texas. C. interpositum Nyl.

1. Spores 1-septate.2

2. Thallus adnate, thin, reniform to round or effuse, crustlike.
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2. Thallus shelf-like, imbricate, yellow-green to greenish gray. Hyphae 2-2.5 μ m wide, rather thick-walled, variously disposed and forming a loose network over the circularly or irregularly spreading photobiont (Trentepohlia). Apothecia 0.25-0.6 mm across, subsessile;

disk flat to slightly convex, pale yellowish to reddish; margins thin, pale, whitish, sometimes red; asci cylindrico-clavate; spores biseriate (usually obliquely uniseriate according to Fink), ovate to short-fusiform (ellipsoid according to Fink), (6-)7-9 x 2-3 μ m. On trees, Florida. C. linkii Ehrenb.

3. Apothecia sessile, flat; margins thin, smooth, white. 4

3. Apothecia subsessile or stalked, flat or convex; margins thin or sometimes thick, smooth to uneven, pale or white. Thallus adnate, pannose, expanded; filaments not moniliform (phycobiont is Trentepohlia). 5

4. Thallus crust-like with moniliform filaments (phycobiont is Physolinum), glaucous green to deep yellow, yellowish to greenish gray or olive-green. Spores fusiform with obtuse apices(ellipsoid according to Fink), uniseriate to biseriate (or irregularly arranged), (8-)9-13 x 3-3.5(-5) μ m. Hyphae 2-2.5 μ m wide, variously disposed in a network over the photobiont, forming a finely arachnoid, subareolate crust. Apothecia 0.2-0.4 mm across, sessile; disk flat to slightly convex, flesh-colored to reddish or brownish; exciple whitish; asci clavate. Excipulum and subhymenium hyaline. Hymenium 55-60 μ m, hyaline, I+ slightly blue, K-. Paraphyses simple, ca. 1 μ m thick, tips scarcely thickened. Asci subcylindrical-clavate, ca. 8 μ m thick. Spores 8. Photobiont moniliform; cells 12-20 μ m thick and scarcely longer. On trees, Florida.C. moniliforme Tuck.

4. Thallus adnate, pannose, expanded, bright yellow; filaments not moniliform (phycobiont is Trentepohlia); spores ellipsoid-fusiform, uniseriate, oblique, 7-12 x 2-3 μ m.C. implexum Nyl.

5. Spores biseriate (obliquely uniseriate or irregular according to Fink), fusiform, 11-13 x 3-4 μ m; margins of apothecia thin, smooth, pale. Thallus yellow-green. Hyphae ca. 1.5-2 μ m wide, rather thick-walled, extending irregularly and forming a loose network over the greenish gray, irregularly or circularly spreading algal host. Apothecia 0.3-0.6 mm diam., shortly stipitate; exciple whitish; asci cylindrico-clavate; spores ellipsoid, 1-septate, 10-15 x 2.5-3.5 μ m. On trees, Alabama.C. disjunctum Nyl.

5. Spores uniseriate, rarely irregularly biseriate, short-fusiform or fusiform-ellipsoid, 6-9(-12) x 2-3(-4) μ m; margins of apothecia thick, uneven, white. Thallus pale yellow. Thallus closely to loosely felt-like, pannose, pulvinate or spreading, 1-5(-8) cm diam., olive-green to greenish yellow. Photobiont Trentepohlia; filament cells 2-4 x longer than wide. Apothecia scattered, small, 1 mm diam., round, sessile; disc plane, carneous-yellow, margins entire, white, thin. Paraphyses septate, 1.5-2 μ m wide,

apices clavate, 2-3.5 um wide. Ascospores 8, oblique. Excipulum hyaline, pseudoparenchymatous, cell lumina 3-5 um long, 2-3(-4) um wide. Subhymenium thick, composed of irregularly and densely entangled hyphae. Hymenium ca. 60 um, l+ dirty red. Paraphyses ca. 1 um thick, slightly thickened above, with 2-3 septae. Algae 8-12 um thick.C. interplexum Nyl.

ADD:

C. "megasporea" Ryan in herb.

Spores huge (especially in width) compared to any of the species above (something like 15-20 x 10 um!); I remeasured them and they were still way to large; something's fishy, and I don't think it's the calibration of my microscope (If it is, I'm in very deep do-do, because I've measrued a lot of damn spores with that thing!). Could there be some other genus that looks like Coenogonium? Could it be a Dimerella? (according to Malme, C. monilliforme is intermediate between the two genera). Could the spores be from a parasite? Do I have a new species? A new genus? Help! On bark, Northern Florida.

C. missouriense J. Davis

Literature

Awasthi. 19 . Microlichens of India, etc.

Davis, J. S. 1994. Coenogonium missouriense, a new lichen species from Missouri. The Bryologist 97: 1860189.

Fink, B. 1935. Lichen Flora of the United States.

Galloway, D. 1985. Flora of New Zealand Lichens.

Malme, G. 1937. Lichenes nonulli in expeditione Regnelliana prima collecti. Arkiv f. Bot. 29a(6): 1-35.

Rogers, 19_. Genera of Australian Lichens.

Uyenco, 1963. Coenogonium.