

Myriotrema Feé
(THELOTREMATACEAE)

Thallus crustose, epiphloedal; corticiform layer usually dense, with splitting and exfoliation, more rarely loosely organized or lacking; medulla well developed. Apothecia either immersed in the medulla without development of a thalline rim (less commonly immersed in the periderm), or raised with a distinct incurved thalline rim and a tiny pores). Exciple hyaline to pale reddish brown; columnar structures, if present, noncarbonized. Periphysoids lacking. Spores I+ deep blue or rarely I-.

After Harris, 1990, 1995

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1. Thallus sorediate, gray or gray-green, matt, continuous, containing large colorless crystals; soralia initially erose and punctiform but expanding with age and even becoming somewhat capitate; soredia rather coarse and irregular, white. Thallus K-, P+ red (protocetraric acid). Apothecia very rare (fertile material not found in U.S. yet), scattered, slightly emergent; pore round, broadening with age, surrounded by a paler ring; columella absent; disk pruinose with apale pseudocolumella; ascospores 8/ascus, hyaline, (6-)10-11-celled, 42-46 x 9-11 um. Florida. M. erodens R. C. Harris

1. Thallus not sorediate. 2

2. Spores brown, submuriform to densely muriform. 3

2. Spores hyaline, transversely septate to submuriform.

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3. Spores 1-2 per ascus, densely muriform, 70-130 x 20-30 um.

Thallus P+ orange (stictic acid agg.). Florida. M. reclusum
(Krempelh.) Hale

3. Spores 8 per ascus, submuriform. 4

4. Thallus K-, P- (no substances), with large polygonal crystals, usually with packets of bright red pigment; ascospores 2 x 4-celled, 14-18 x 10-14 um. Florida. M. wightii

4. Thallus K+ yellow or red, P+ orange (stictic or norstictic acid). Medulla white, lacking red crystals. 5

5. Apothecia angular, crowded, often in whitish, decorticate areas; ascospores 1-2 x 4-celled, 13-16 x 7-10 um. With stictic acid. Florida. M. glaucescens

5. Apothecia rounded, not crowded. 6

6. Norstictic acid lacking. Ascomata round, slightly raised;

disk not pulling away from thallus. Florida. M. subcompunctum (Nyl.) Hale

6. Norstictic acid in addition to stictic. Ascomata smaller, more irregular; disk pulling away from thallus. Thallus glaucous green, thick, epiphloeodal. Apothecia numerous, crowded, immersed, ecolumellate, lepadinioid, 0.3-0.6 mm diam.; ostiole minute, flush with thallus; thalline margin free from the proper exciple near the apical part; spores 8, uniseriate, 8-10 x 12-18 μ m. Florida. M. compunctum

7. Spores submuriform. 8

7. Spores transversely septate. 9

8. Apothecia small, 0.3-0.4 mm across, immersed; thallus light gray. Ascospores 1-3 x 3-5-celled, 9-20 x 4-6 μ m. Medulla K-, P+ yellow (psoromic acid). Thallus with numerous crystals. Florida. M. rugiferum (Harm.) Hale

8. Apothecia larger, to 1.0 mm, emergent, hemispherical, with broad rounded pore. Thallus pale tan. Ascospores strongly tapered at one end, 1-2 x 6-7-celled, 18-25 x 6-8 μ m, I-. Medulla K+ yellow, P+ orange (stictic acid agg.) or K-, P- (no substances). Thallus continuous, ecorticate or with thin prosoplectenchymatous cortex; medulla with numerous large crystals. Hymenium pulling away from margin; disk pruinose. Florida. M. peninsulae R. C. Harris

9. Cortex UV+ yellow (lichexanthone); medulla P- (hypoprotocetraric acid). Ascospores 4-celled, 10-12 x 5-6 μ m. Florida. M. glauculum (Nyl.) Hale

9. Cortex UV-; medulla P+ yellow (psoromic acid). Ascospores 3-4-celled, 9-15 x 4-7 μ m. Florida. M. terebratum s.l. 10

10. Spores 6-8 loculate. Thallus less than 100 μ m thick, dark glaucous green; apothecia somewhat raised at maturity. Apothecia lepadinioid (proper exciple separate from thalline exciple). Thallus smooth, continuous, epiphloeodal. Apothecia many, semi-emergent, lepadinioid, non-columellate, ostiole moderately open, rim concolorous with thallus and distinctly elevated from thallus level; spores 8, uniseriate, oblong-ellipsoid, 14-18 x 4-6 μ m, I+ blue. (According to Harris, not definitely known from the U.S., and probably not very distinct from M. terebratum). (M. glaucophaenum)

10. Spores (3-)4-loculate. 10a

10a. Cortex UV+ yellow, medulla P- (lichexanthone, hypoprotocetraric acid); ascospores 4-celled, 10-12 x 5-6 μ m. Florida. M. glauculum (Nyl.) Hale

10a. Cortex UV-, medulla P+ yellow (psoromic acid); ascospores 3-4-celled, 9-15 x 4-7 um. Thallus 50-200 um thick, citrine green; apothecia immersed (flush with surface); spores 4 loculate. Thallus smooth, shiny, epiphloedal. Apothecia numerous, immersed, ecolumellate, lepadinioid; ostiole minute, flush with thallus; thalline exciple free from proper exciple at least near tip; proper exciple thin, brown, non-carbonized. Spores 8, uniseriate, 9-15 x 4-7 um. Florida. M. terebratulum

ADD?:

Thallus thin to somewhat thick, rough, chinky and becoming areolate, greenish gray to ashy. Apothecia 0.08-0.2 mm across, immersed; disc concave, black; proper exciple thin, black, surrounded by thin thalloid one; spores 8, oblong, 3-septate transversely and 1-septate longitudinally, 12-18 x 7-10 um. On trees, S. Carolina and Louisiana (according to Harris, not definitely known from the U.S.) M. laeviusculum

(Cross reference): Thelotrema halei

EXCLUDED (according to Harris):

M. clandestinum

M. microporum

M. granulosum

Literature

Awasthi. 19 . Microlichens of India, etc.

Hale, M. E. 19 . (Several references; need more info. from these).

Harris, R. C. 1990. Some Florida Lichens.

Harris, R. C. 1995. More Florida Lichens.

Patwardhan, P. G. and C. R. Kulkarni. 1977. A contribution to our knowledge of the lichen flora of India I: Family Thelotremataceae. Kavaka 5: 1-17.