

CHAPTER 12

FAMILY MEGALARIACEAE

Characteristics of the Family Megalariaceae

Thallus: corticolous, whitish grey to pale grey-green, smooth to verrucose, continuous; epruina; Soralia and Isidia absent; Prothallus not visible; Photobiont chlorococcoid; **Apothecia**: scattered and entire, sessile, constricted at the base; disc plane to convex, black and black at margin; epruina; with biatorine (proper exciple), a layered exciple with a prosoplectenchymatic outer part and an inner part, which is composed of a texture intricate with large intercellular spaces; Parathecium: indistinct; Epihymenium: brown to black; Hymenium: greenish to brownish; Subhymenium: greenish to brownish; Hypothecium pale brown; Paraphyses: simple, apical not conspicuously swollen; Asci: broadly clavate, *Lecanora*-type; **Ascospores**: 8 per ascus, hyaline, broadly ellipsoid, 1-septate, (15.4)15.5-16.3-17.2(17.3) × (7.0)8.0-8.7-9.5(10.0) μm; **Pycnidia** and **Conidia** not observed.

Description of the Genus *Catillochroma*

Catillochroma (Nyl.) Kalb. (Kalb, 2007, p. 303).

Thallus: corticolous, whitish grey to pale grey-green, smooth to verrucose, continuous, 125.3-209.5 mm thick; epruina; Soralia and Isidia absent; Prothallus not visible; Photobiont chlorococcoid; **Apothecia**: scattered and entire, sessile, constricted at the base; disc plane to convex, black and black at margin; epruina, 0.2-1.5 mm diam.; with biatorine (proper exciple), a layered exciple with a prosoplectenchymatic outer part and an inner part, which is composed of a texture intricate with large intercellular spaces; Parathecium: indistinct; Epihymenium: brown to black, 15.0-20.0 µm thick; Hymenium: greenish to brownish, 60.0-90.0 µm thick; Subhymenium: greenish to brownish, 60.0-90.0 µm thick; Hypothecium pale brown, 35.9-55.5 µm high; Paraphyses: simple, apical not conspicuously swollen, 47.5-59.7 µm high; Asci: broadly clavate, *Lecanora*-type, 6.0-10.0 µm high; **Ascospores**: 8 per ascus, hyaline, broadly ellipsoid, 1-septate, (15.4)15.5-16.3-17.2(17.3) × (7.0)8.0-8.7-9.5(10.0) µm; **Pycnidia** and **Conidia** not observed.

Chemistry: atranorin, fumarprotocetraric acid and zeorin.

Habitats: On barks

Distribution: New Zealand.

Description of the Species

Catillochroma melanotropa (Nyl.) Kalb, (Kalb, 2007, p. 303).

Lecidea melanotropa Nyl., Bot. J. Linn. Soc. 9: 255 (1866).

(see Figure 53)

Thallus: corticolous, whitish grey to pale grey-green, smooth to

verrucose, continuous, 125.3-209.5 mm thick; epruina; Soralia and Isidia absent; Prothallus not visible; Photobiont chlorococcoid; **Apothecia**: scattered and entire, sessile, constricted at the base; disc plane to convex, black and black at margin; epruina, 0.2-1.5 mm diam.; with biatorine (proper exciple), a layered exciple with a prosoplectenchymatic outer part and an inner part, which is composed of a texture intricate with large intercellular spaces; Parathecium: indistinct; Epihymenium: brown to black, 15.0-20.0 µm thick; Hymenium: greenish to brownish, 60.0-90.0 µm thick; Subhymenium: greenish to brownish, 60.0-90.0 µm thick; Hypothecium pale brown, 35.9-55.5 µm high; Paraphyses: simple, apical not conspicuously swollen, 47.5-59.7 µm high; Asci: broadly clavate, *Lecanora*-type, 6.0-10.0 µm high; **Ascospores**: 8 per ascus, hyaline, broadly ellipsoid, 1-septate, (15.4)15.5-16.3-17.2(17.3) × (7.0)8.0-8.7-9.5(10.0) µm; **Pycnidia** and **Conidia** not observed.

Chemistry: thallus P-, K+ yellow, C-, KC-; containing atranorin, fumarprotocetraric acid and zeorin.

Habitats: occurring on barks in lower montane scrub and lower montane rainforests between 923 and 1,487 m.

Distribution: Thailand, and New Zealand.

Specimens examined: Phu Luang Wildlife Sanctuary, Loei Province. Khok Huai Toei, on trunk of *Quercus lineata* Blume, 27 June 2008, Varaporn Sriprang—VC529, RU010535, VC807, RU010532, KNPL0210, VC490, VC491, VC497 & VC528(RAMK); *ibid.*, Phuluang Wildlife Research Station, on trunk of an unidentified tree, 12 November 2008, Varaporn

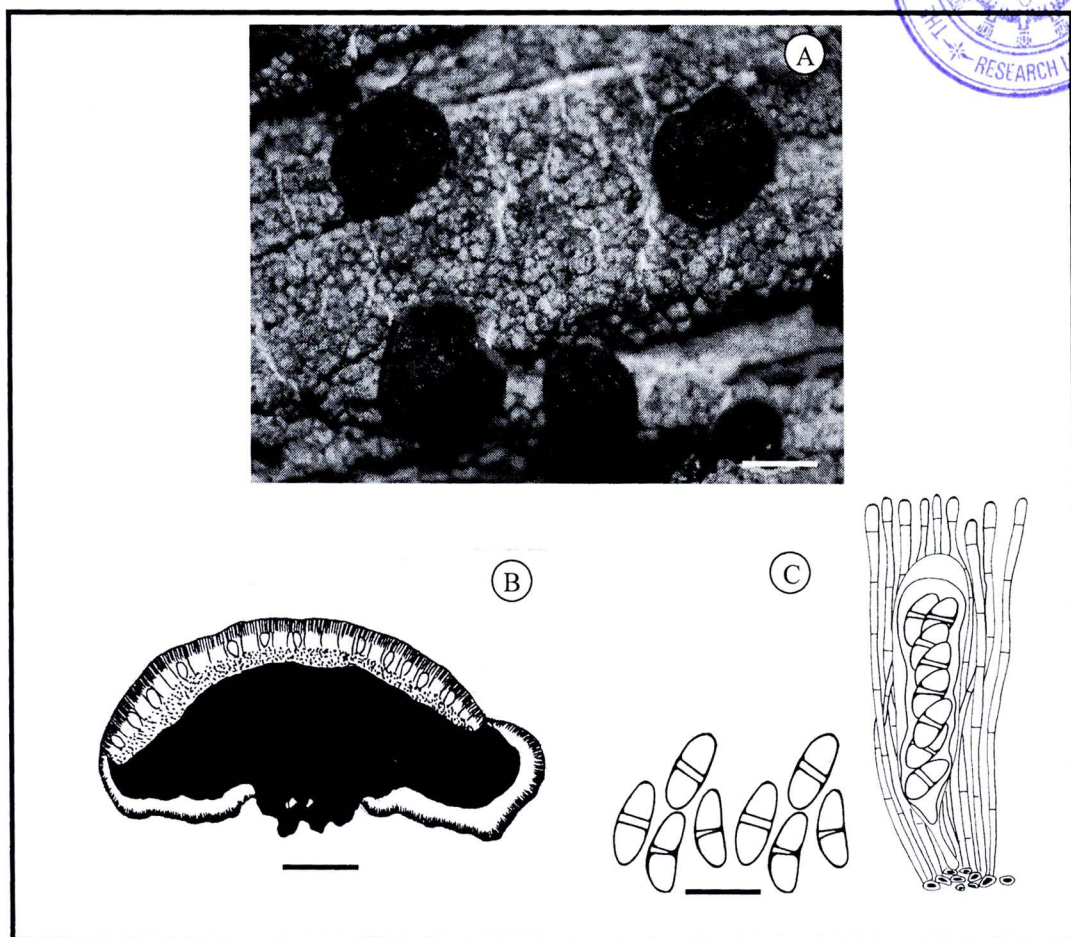


Figure 53 *Catillochroma melanotropa* (Nyl.) Kalb

Note. A = Apothecia biatorine, sessile, black [RU010535(RAMK)]

(scale = 1 mm)

B = Illustration of vertical section of apothecia [RU010535(RAMK)]

(scale = 10 μ m)

C = Illustration of ascus with paraphyses and ascospores

[RU010535(RAMK)] (scale = 5.02 μ m)

Sriprang—VC641, VC642, VC645, VC649, VC650, VC729, VC735, VC960 & VC496 (RAMK); *ibid.*, around the helicopter landing spot, on trunk of an unidentified tree, 12 November 2008, Varaporn Sriprang—VC671, VC672,

VC673, VC674 & VC765(RAMK).

Observation: *Catillochroma melanotropa* is characterized by a bi-layered exciple, broad ascospores and a thallus containing atranorin, fumarprotocetraric acid and zeorin.