

**Bryonora** Poelt  
(LECANORALES: LECANORACEAE)

After Poelt, 1983 and Holtan-Hartwig, 1991

Rev. 5/94

Thallus crustose, squamulose to frutescent; prothallus indisintct. Medulla and algal layer lax. Photobiont chlorococcoid. Apothecia sessile; thalline exciple present but superficially often appearing biatorine; true exciple distinct, continuous, strongly conglutinated, swollen; outer layer consisting of anastomosing, net-like, randomly oriented hyphae in a firm gelatinous matrix, the lumen narrow, the marginal hyphae with globose,  $\pm$  swollen apices; inner, non swollen layer red-brown. Epihymenium red-brown. Hypothecium strongly conglutinated, pale brown, with photobiont cells below. Paraphyses simple, subdistinct, thin; apices thickened, capitate; inner wall layer brownish, strongly conglutinated. Asci clavate, with an l+ blue outer wall layer and a distinctly l+ blue tholus. Spores 8, thick-walled, ellipsoid-elongate to fusiform, simple or up to 6-septate, colorless. Pycnidia with bacilliform conidia. No substances. On mosses, lichens, decaying plant remains or soil, acidophilous, montane to alpine.

A segregate from Lecanora, characterized by the clearly distinct conglutinated cortex of the exciple and by its ecology.

**1. Margin of apothecia usually darker than the disk; spores usually less than 16  $\mu$ m long; apothecia containing usnic acid.** Thallus indistinct or forming a thin, whitish, granular crust. Apothecia 0.5-2.0(-3.0) mm diam., peltate, "delicate"; disk sometimes pruinose,  $\pm$  flat then sometimes slightly convex, pale yellowish brown to brown; margin usually present, narrow, blackish (darker than disk), sometimes becoming down-turned; cortex lacking internal crystals, KI+ faintly violet; medulla KI+ faintly violet; epihymenium yellowish brown, K-, N-. Spores shortly ellipsoid, simple,, sometimes 1-septate, (9-)11.5-14.5-17.5(-19) x (4-)4-5-5.5(-6.5)  $\mu$ m. On lichens and plant debris, often in dry sites. Arctic-alpine. Rocky Mountains of Canada; Greenland. .... B. pruinosa (Th. Fr.) Holtan-Hartwig

**1. Margin of apothecia paler or concolorous with the disk; spores usually more than 16  $\mu$ m long; apothecia containing isousnic acid or norstictic acid. .... 2**

**2. Apothecia containing isousnic acid; apothecial disk often distinctly pruinose; apothecial cortex lacking crystals arranged in anticlinal rows.** Thallus indistinct or forming a thin, whitish granular crust. Apothecia 0.5-1.1(-2.0) mm diam., when old often crowded and irregular; disk pale reddish brown to medium reddish

brown, often becoming weakly convex and bumpy; margin concolorous or paler, becoming somewhat down-turned; cortex K-, KI+ faintly violet; medulla K-, KI+ faintly violet; epihymenium yellowish brown, K-, N-; spores ellipsoid to cylindrical, sometimes curved, simple, or sometimes up to 2-septate, (19-)20-26.5-33(-39) x (5-)5-6-7(-8.5)  $\mu$ m. On mosses, arctic-alpine. NW Territories (Baffin Island); Greenland. .... B. septentrionalis Holtan-Hartwig

**2. Apothecia containing norstictic acid; apothecial disk without pruina or sometimes slightly pruinose; apothecial cortex containing crystals arranged in anticlinal rows (polarized light!).** ..... 3

**3. Spores (12-)14.5-20-25.5(-31) x (4.5-)5.5-6.5-7.5(-8.5)  $\mu$ m, straight, ellipsoid to oblong-ellipsoid (or fusiform?), simple, sometimes 1(-3?)-septate. Apothecia 0.5-1.5(-2.0) mm diam. (or often larger?). Growing on various mosses and on plant debris.**

Thallus indistinct or forming a thin, membranous to granular, grayish white to dark brown crust. Disk usually epruinose, concave to flat, medium brown; margin concolorous or paler; cortex K+ red, KI-; medulla K-, K-; epihymenium yellowish brown, K-, N-. On soil, among various mosses, and lichens (especially Peltigera spp.), arctic-alpine. Rocky Mountains of Canada; Greenland. .... B. castanea (Hepp) Poelt

**3. Spores (18?-25-)29-34-39(-42) x (4-)4.5-5.5-7(-8)  $\mu$ m, ellipsoid-subcylindrical, rarely clavate, with rounded or weakly pointed apices, straight, or often curved or weakly S-shaped, simple, sometimes becoming up to 4(-6?)-septate when long trapped in ascus. Apothecia (0.5-)0.8-1.9(-4.5) mm diam. Growing exclusively on Andraea and Grimmia.** Apothecia scattered to crowded,  $\pm$  sessile; disc dark brown to black, initially faintly gray-white pruinose, at first  $\pm$  rounded, concave, later becoming flat (to irregularly lobate, or often  $\pm$  convex?); margin gray to deep red-brown, mostly concolorous or somewhat paler than disc, prominent, glossy; true exciple, when evident, 0.03-0.05 mm wide; cortex K+ red, KI-; medulla K-, KI-. Epihymenium yellowish brown, K-, N-. Paraphyses with apices to 4  $\mu$ m wide; end cell red-brown. Thallus mostly within mosses, indistinct, little developed, gray to black-brown, irregularly granular, nodulose, or  $\pm$  continuous and film-like, effuse, P-, K-, C-, KC-, UV-. On moss (Andrea or Grimmia), on inclined surfaces, in screes and on rock walls, preferably seepage tracks on north-facing rock outcrops, arctic-alpine. Greenland..... B. curvescens (Mudd) Poelt

## Literature

Holtan-Hartwig, J. 1991. A revision of the lichens Bryonora castanea and B.

curvescens. Mycotaxon 40: 295-305.

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