

**Bryocaulon** Krnef.  
(LECANORALES: PARMELIACEAE)

After Krnefeldt, 1986

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Thallus composed of ± numerous unattached individuals, in shrubby erect tufts, pendent or subpendent, attached from the base; lobes ± terete or angular in crosssection; color ± brown to reddish brown, ± basal parts dark; pseudocyphellae ± fusiform, raised or plane; cilia lacking. Epicortex nonpored, ± knobby, ca. 25 µm thick. Outer cortex composed of 13 layers of densely packed anticlinal cells, ca. 1025 µm thick; inner layer composed of strongly gelatinized periclinal hyphae, ca. 3064 µm thick. Medulla with ± dense to ± lax hyphae, with ± scattered bundles of periclinal hyphae; single hyphae ca. 24.5 µm diam., smooth. Isidia absent.

Apothecia zeorine, lateral in angular position towards the distal lobes; thalline margin ± prominent, with algae and medullary portion. Spores hyaline, simple, ellipsoid, 69 x 2.54.5 µm. Pycnidia ± immersed; pycnospores bifusiform, 4.56.1 x 0.5 µm. Olivetoric or physodic acids, or no substances.

On soil in the arctic or subarctic tundra; corticolous on conifers, Pacific.

Both N. American species have medulla C+ reddish, KC+ red, K, P, with olivetoric acid.

**1. On bark.** Thallus pendent to subpendent, ca. 520 cm long; lobes forming shrubby Bryoria-like colonies, which arise from small basal attachment points, ca. 0.21 mm wide, rather smooth and glossy, occasionally foveolate or with scattered longitudinal furrows, brown; pseudocyphellae scattered, very small, punctiform or slightly fusiform, barely discernable without a lens. Apothecia ± rare; disc to 2 mm diam.; margin crenulate; base foveolate. Ascospores 7.39 x 3.54.5 µm. On bark and twigs of conifers (Picea sitchensis and Tsuga heterophylla), in coastal coniferous rainforest and characteristic of associated blanket bogs with numerous seepage areas and wet depressions, sea level to ca. 500 m. British Columbia. ....B.  
pseudosatoanum

**1. Usually on or near the ground.** No distinct basal structures present; lobes unattached. Thallus fruticose, erect, branching, fragile, shining, dark redbrown to blackish brown, 58 cm tall,

the main axes to 2 mm, the branches dichotomous; pseudocyphellae rather frequent,  $\pm$  distinct, white, raised; interior with fairly dense cottony hyphae. Apothecia rare; spores 78 x 3.54  $\mu$ m. On soil or humus, forming large mats in heath tundras, occasionally on the lower branches of trees at the tundra border. Usually much intermixed with Bryoria nitidula. Arcticalpine (Alaska to Greenland, south to British Columbia and Washington in the west and Nova Scotia in the east), very common. ....B. divergens

**Literature:**

Krnefelt, I. 1986. The genera Bryocaulon, Coelocaulon and Cornicularia and formerly associated taxa. Opera Botanica 86: 190.

Thomson, J. W. 1984. American Arctic Lichens. I. The Macrolichens.