

Byssoloma Trevisan
(PILOCARPACEAE)

After Santesson (1952)

Rev. 4/96

Thallus crustose, effuse, ecorticate. Apothecia sessile or adnate; disk \pm round, flat or slightly convex; thalline margin absent; true exciple formed by loosely intricate hyphae, tomentose-arachnoid in some species, spreading laterally over the surface of thallus, becoming thinner outwards; hypothecium dark red-brown, K \pm purple; hymenium I+ blue; paraphyses simple or little branched, not or slightly thickened at apices; asci cylindrical-clavate, unitunicate, thick-walled; tholus I+ blue; in K/I with amyloid apical dome containing a darker blue tubular ring-structure and an amyloid fuzzy coat; spores 8, transversely 1-3-septate when mature, hyaline. Pycnidia sessile, \pm globose, usually covered by a layer of loosely interwoven hyphae; fulcrum endobasidial; conidiogenous cells simple; pycnosporos apically formed, flask-shaped or \pm ellipsoid and constricted at the middle (spherical to bacilliform according to Rogers). No substances, or 2-chloroemodin, emodin, fragilin. Photobiont trebouxoid. Mainly on leaves, rarely on bark or rock, mostly tropical.

Characterized by the Byssoloma-type ascus structure, byssoid true exciple and \pm pyriform pycnosporos.

1. Excipulum yellowish brown, encrusted with K+ yellow crystals, formed by loosely intricate hyphae. Apothecia 0.2-0.3 mm diam.; disc dark brown to brownish black. Paraphyses sparse. Thallus smooth. Mature spores 3-septate, 9-15 x 3-4 μ m. On leaves. Tropical. B. tricholomum (Mont.) Zahlbr.

1. Excipulum not as above. 2

2. Excipulum not arachnoid, with a \pm swollen, smooth, shiny margin. Thallus to 4-5 cm diam., usually smaller, almost always continuous, greenish white to greenish, irregularly farinose, rather thin, sometimes almost indistinct or made of dispersed granules; prothallus absent. Apothecia 0.3-0.6 mm diam., flat to strongly convex, sometimes confluent and forming lobate aggregates; disc brownish to almost black, usually with a bluish tinge, with a slightly prominent (in young apothecai) persistent true exciple always paler than the disc; base of apothecia sometimes with a whitish rim of outwardly directed hyphae appearing as anchorage of the apothecium to the substratum. Spores 12-18 x 3-5 μ m. Conidiomata usually conspicuous. Conidia 3.7-4.5 x 1.3-1.7 μ m, pyriform or slightly constricted at the middle. Crevices of smooth bark, rough bark, or overgrowing mosses on bark in humid habitats, on Alnus rubra and Picea sitchensis, Queen Charlotte Islands, British Columbia, south to northern California. B. marginatum

2. Excipulum arachnoid-wooly or, in well-developed specimens, spreading laterally as a whitish network of loosely intricate hyphae, white to pale yellowish, K-, Paraphyses sparse. Thallus \pm smooth. 3

3. Apothecia pale to dark but never black. 4

3. Apothecia usually pure black, sometimes tinged bluish, 0.3-0.6 mm diam; margin usually white, rarely gray-white. Thallus white to pale gray, somewhat shiny, at least in peripheral part dispersed in small \pm round or irregular spots; prothallus hardly apparent. Ascospores 10-17 x 3-5 μ m. Byssoid margin of apothecia whitish, K-. Exciple often greenish tinted. On leaves in tropical regions, and on damp, shaded rocks and stems in temperate regions. B. subdiscordans (Nyl.) P. James

4. Apothecia 0.3-0.5(-0.8) mm diam., grayish brown or dark orange-brown to dark brown, rarely yellowish (pigment deficient morphs); proper exciple not prominent, outer part byssoid, spreading over thallus surface, gradually thinner towards edge; hypothecium pale to dark brown, rarely colorless (pigment-deficient specimens).

Pycnidia common, 100-150 μ m wde. Mostly foliicolous or corticolous, rarely saxicolous. Proper margin yellowish white to yellowish gray. Thallus usually gray or gray-green, sometimes grayish black, usually continuous, smooth or irregularly farinose; prothallus sometimes conspicuous, brown to black. Spores 8/ascus, 3-septate, bacillar to oblong, 10-18 x 2.5-4 μ m. Byssoid margin whitish, K-. Epithecium indistinct; hypothecium light to dark brown, K+ purple. On old stumps and on bark and leaves of broad-leaved trees. Tropical and temperate. B. leucoblepharum (Nyl.) Vainio

4. Apothecia 0.2-0.3(-0.5) mm diam., pale dirty yellow; proper exciple prominent, raised above thallus, moderately byssoid, not spreading over the thallus; hypothecium colorless or pale yellowish. Pycnidia rare, 50-75 μ m wide. On bark, preferring twigs and branches, Florida and Louisiana. B. meadii (Tuck.) S. Ekman

ADD:

Similar to B. leucoblepharum but thallus UV+ orange and hypothecium pale. On bark. Florida to North Carolina. B. pubescens Vezda ex R. C. Harris

B. pubescens

Thallus corticolous, gray-green, dull, smooth, continuous, UV+ orange (xanthonenes). Apothecia sessile, orbicular, flattened, tightly adnate, 0.2-0.7 mm diam.; byssoid margin moderately to slightly developed, usually not spreading, whitish, K-; disk pale whitish yellow to dirty yellowish, often mottled with darker yellow brown, sometimes entirely darkening to dirty brown. Epithecium \pm colorless in section. Hymenium nearly colorless or yellowish. Hypothecium nearly colorless or yellowish, rarely light brownish. Ascospores 4-celled, 10-15 x 2.5-4 μ m. Microconidia lageniform, 3-4 x 1.5 μ m.

Literature

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