

Biatoropsis

Basidiomata extremely variable in form, size and color, generally subspherical and convex with a constricted base, often with lobate margins, sometimes flattened or with a concave central part, rarely effuse and covering larger areas around the branches of the host; surface smooth, rarely tuberculate, cartilaginous, pale pinkish, reddish brown, dark brown or black, 0.2-2.5 mm diam.; context hyphae 2-3 µm wide, mostly uniform, the walls not markedly thickened, clamps absent; haustorial branches frequent, mother cell subspherical or sometimes elongate, 2.5-4.5 µm diam., haustorial filament 0.5-1 µm thick, 3-7 µm long. Hymenium hyaline, sometimes reddish brown in upper part and then yellow in 5% KOH; thickness variable, containing numerous probasidia. Basidia, when mature, clavate to subcylindrical, with 1-3-transverse septa, 20-44 x 3-6.5 µm; epibasidia 2-3 µm thick, to 85 µm long. Basidiospores subglobose to ellipsoid, with a distinct apiculus, 4.5-8 x 4-7.5 µm. Anamorph hyphomycetous, often present, forming long branching chains of hyaline, ellipsoid, simple conidia, 3-5 x 2-3.5 µm. **Forming pale pinkish to brownish convex galls ("carpoids") 0.5-2 mm wide on tips of branches of caespitose and pendulous Usnea spp. Heterobasidiomycete. Arizona, California. B. usnearum Räsänen (see Diederich & Christiansen, 1993)**

On Usnea. Arizona; British Columbia. B. usnearum Räsänen

Bispora

On Xanthoria elegans. British Columbia. B. christiansenii D. Hawksw.

Bryoscyphus

True exciple lacking; asci 55-60 x 7-8 µm; spores 11-13 x 2-3 µm. On Cladonia. British Columbia. B. lichenicola

B. lichenicola Alstrup & M. Cole

Mycelium embedded in the lichen thallus, hyphae short-celled, 2-3 µm long by 1.5 µm wide. Apothecia stipitate, stipe up to 1.5 mm high and 0.8 mm thick, consisting of hyphae with cells 5-8 µm, pale orange, terminating with concolorous, flat to cupulate disc, up to 1.5 mm diam. Hymenium 60-70 µm high, paraphyses ca. 1.5 µm thick, free, unbranched, with a slightly enlarged tip. Asci narrowly clavate, pore blue in Lugol, 55-60 x 7-8 µm, 8-spored. Ascospores distichously arranged, narrowly ellipsoid, hyaline, 1-septate, 11-13 x 2-3 µm. Exciple absent or consisting of free hyphae not easily distinguished from paraphyses. The lichen thallus becomes yellow as the infection spreads.

Buellia

After Hafellner (Karschia)

1. On foliose lichens or Caloplaca spp.2

1. On crustose, areolate to effigurate thalli, rarely on Caloplaca spp.
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2. Apothecia on species of Parmelia s. lato, especially Melanelia, or on various crustose lichens (Acarospora, Aspcilia, Caloplaca, Rinodina, and Buellia). In juvenile stage without visible thallus, later independent, with nitid brown thallus. Spores 2-celled, 10-15 x 6-8 um. Arizona; widespread.B. badia
2. Apothecia not on Parmelia spp.3
3. Apothecia on species of Physciaceae. Spores 2- to 4-celled, finely warty, 16-21 x 6.5-7.8-8.5 um. British Columbia.B. pulverulenta
3. Apothecia on Xanthoria elegans, rarely on other Xanthoria or Caloplaca species. Spores submuriform, 14-20 x 9-11 um.(Diplotomma nivalis)
4. Apothecia on thalli of Chaenotheca species. Spores 7-10 x 3-4 um.B. schaereri
4. Apothecia on crustose saxicolous lichen thalli. Hypothecium brown.5
5. Parasitic lichen (i.e., forming its own lichenized thallus?) on Dimelaena oreina. Spores 15-18 x 7-9.5 um.B. imshaugii
5. Not parasitic (but may be partially epiphytic?). Thallus indistinct, UV-. Spores 10-15 x 5-7 um.B. punctata

Apothecia sessile on host thallus, black, at first with small, concave disc and thick margin, then disc flat and margin thin, 0.25-0.5 mm diam.; in median section with rather coarse "foot". Escipulum dark brown, with distinct amphithecium. Hypothecium dark brown. Hymenium hyaline, 70-80 um high. Epihymenium brown. Asci "lecanoral", broadly clavate to cylindrical, with distinct amyloid apical apparatus, somewhat associated with gelatin. Spores to 8 or rarely fewer, 45-55 x 17-24 um. Paraphyses septate, mostly branched only in the upper third, scarcely conglutinate, 2-2.5 um thick, with dark brown tips, these to 6 um thick. Spores 2-celled, brown, both cells equal, rarely somewhat constricted at septum, 14-15.9-18 x 6-7-6-9 um. Hymenial gel I+ blue. On Lecanora straminea, British Columbia to Alaska. B. adjuncta

..... B. zahlbruckneri

Buelliella

After Fink, and Hafellner (Karschia)

Rev. 1/88

Ascocarps sessile on the host thallus, first erupting and punctiform, later opening up. Excipulum uniformly thin, pseudoparenchymatous. Spores thin-walled. All parts I-.

1. Apothecia not more than 0.2 mm across. Spores 14-18 x (5)6-8 um. Excipulum brown, distinctly pseudoparenchymatous. Epihymenium pale brown. On Pertusaria sp., Florida.B. minimula

1. Apothecia reaching 0.5 mm across. Spores 16-18 x 6.5-8.5 um. Excipulum thin, densely encrusted with purple-black or blue-black. Epihymenium blue-black. On Trypethelium carolinianum, Florida.B. trypethelii

On Caloplaca. Arizona. B. cf. inops

On Phaeophyscia. California; British Columbia. B. physciicola Poelt & Hafellner