

Allantoparmelia (Vainio) Essl.
(LECANORALES: PARMELIACEAE)

After Esslinger, and others

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Thallus foliose, but lobes sometimes so closely crowded that it approaches being crustose; closely attached; lobes ca. 0.11.5 mm wide, usually elongated, generally convex to dorsiventrally flattened, often knobby thickened, sometimes with microphyllous lobes in the center; without pseudocyphellae or distinct vegetative diaspores; upper surface brownblackish to redbrown, K, N; underside clearly unevenly foldedpitted, attached by advancing lobes or adhesive places (irregular peglike cortical outgrowths), without rhizines. Upper and lower cortices prosoplectenchymatous, of thick cemented anticlinal hyphae; medulla rather loose. Nonpored epicortex present. Pseudocyphellae absent. Cell walls containing isolichenan.

Apothecia sessile, laminal, eperforate; thalloid margin thickish, later pressed back; disks ± flat, brownblack. Hymenium thin, colorless; epihymenium green to dirty brown; asci clavate, I+ blue; tholus thick, I+ blue; spores 8, colorless, thick walled, ± ellipsoid. Pycnidia ± immersed in thallus; fulcrum endobasidial; pycnosporos bifusiform to bacilliform or slightly clavate (6 x 1 um), colorless. Containing 2 benzyl ester depsidones unknown elsewhere in the foliose Parmeliaceae. On acidic siliceous rocks, arcticalpine.

Separated from Parmelia by the lack of rhizines, and from [most species of] Hypogymnia by the solidness of the lobes and lack of atranorin in the cortex and different medullary substances. May be related to Brodoa, which differs in having a gray upper cortex (atranorin) and containing Cetraria type lichenan in the cell walls.

This genus differs from other brown Parmelioids in that the underside lacks rhizines; the lobes tend to be torulose; the upper cortex is always N; pseudocyphellae, soredia and isidia are lacking. It always grows on rock.

1. Medulla P+ bright yellow (alectorialic and barbatolic acids, protolichesterinic acid, and unknowns), K+ pale to dingy yellow, C or C+ rose, KC+ rosered. Thallus appressed to pulvinate, loosely adnate to somewhat crustose; lobes to 1.5 mm broad, convex, elongate, rather strongly torulose, continuous to much

imbricated; upper surface dark brown to black or grayish black, sometimes with a reddish brown tinge, smooth toward periphery, becoming torulose and fissured areolate centrally, matt or slightly shiny at lobe tips. Lower surface black, + longitudinally plicate, sometimes slightly pitted. Apothecia common, concave to flat, to 7 mm broad; margin entire to coarsely crenate, occasionally lobulate. On rock, mainly acidic, arctic-alpine to boreal, south to Washington and Colorado in the west..... A. alpicola

1. Medulla P, K. [Note: Pseudephebe minuscula may also key out here]. 2

2. Medulla C+ and KC+ rosered to red-orange (olivaceous). Lobes to 1 mm broad, linear or nearly so. Upper surface + matt. Lower surface tan to pale brown, or partly darkening. Thallus foliose, appressed to pulvinate or panniform, loosely adnate. Lobes + convex, rather torulose, discrete to entangled. Upper surface olive brown to reddish brown or blackening, + smooth or often torulose or contorted; center of thallus becoming covered by lobules, which are fingerlike, tiny, 0.05-0.3 mm broad, becoming imbricate. Lower surface irregularly plicate and pitted, matt. Apothecia not common, sessile, concave to flat, then convex, to 5 mm broad; margin entire to coarsely crenate or with lobules like those of thallus. On rocks, arctic, south along British Columbia coast. A. almqvistii

2. Medulla C, KC+ rosered, containing alectoronic and collatolic acids and unknowns. Lobes to 0.4 mm broad, short. Upper surface shiny. Lower surface black. Thallus subcrustose, appressed and tightly adnate; lobes convex and torulose, discrete; upper surface dark blackish brown to black, smooth at periphery, soon fissured and areolate. Apothecia sessile, flat, to 1.5 mm broad; margin entire. On rocks. Expected in Alaska. "Parmelia sibirica"

In: Purvis, et al., Lichen Flora of Great Britain and Ireland.
Poelt & Vezda. 1981. Erg. II.