

Arctoparmelia Hale
(LECANORALES: PARMELIACEAE)

After Thomson, 1984, and others

Thallus foliose; upper surface greenish yellow to gray, containing usnic acid and atranorin. Pored epicortex present; pseudocyphellae absent. Upper cortex palisade plectenchymatous. Lower surface velvety; rhizines simple, sparse. Cell walls containing Cetrariatype lichenan (medulla I+ blue).

Apothecia laminal, eperforate. Spores ellipsoid (1012 x 46 um).

Pycnidia laminal, immersed; pycnosporos bifusiform (6 x 0.5 um). Medulla K, UV+, KC+ red, with orcinol depsidone (alectoronic acid); cortex K+ yellow (atranorin), KC+ yellow (usnic acid). On rock, arcticboreal.

Similar to Xanthoparmelia, but with different type of lichenan, larger spores, velvety lower surface, and atranorin in the cortex.

1. Sorediate.2

1. Nonsorediate; thallus P.3

2. Underside dark brown at edges (blackening centrally); lobes to 1(2) mm wide, curved under at tips; soralia capitate, scattered over surface on tips of short lobes, to 4 mm broad, usually less, P+ red or P. Medulla K+ yellowish, P+ yellowish (atranorin), UV+, KC+ red (alectoronic acid). Thallus forming small rosettes, closely attached; lobes narrow, convex, closely set to each other. Upper surface grayish green, yellowgreen, or grayish yellow, darkening towards center, matt; underside with blackish, simple rhizines. On acid rocks, usually in full sun, Alaska to British Columbia, with disjunct in North Carolina.A. incurva

2. Underside black; lobes 0.63 mm wide, not curved under at tips; soredia coarse, pustular. Medulla KC+ red (alectoronic acid). On rock. Alpine western N. America, and Great Lakes area. [Note: sorediate, nonarctic species of Xanthoparmelia, e.g., X. mougeotii, also key here].A. subcentrifuga

3. Medulla I, Lobes short, 12 mm wide, closely adnate; underside dirty whitish or pale brownish. Apothecial discs matt. Thallus commonly dying in center and forming concentric rings; lobes irregularly branching, flat to slightly convex, 2 mm broad; upper surface greenish yellow, partly whitish green, darkening

toward center, matt, sometimes chinky; tips pointed. Rhizines brown to blackish. Apothecia adnate, to 5 mm broad, the margin entire to crenulate or inflexed; disc reddish brown to dark brown. A strain with yellowish white thallus, lacking usnic acid, occurs in new Brunswick. On rocks, preferably acid, usually in strong light, but in more shady spots becoming softer in texture. Alaska, northern Canada, S to Appalachians. A. centrifuga

3. Medulla I+ blue. Lobes elongated, loosely attached; underside mouse gray or dove gray to blueblack. Apothecial discs shining. Lobes dichotomously to irregularly branched; upper surface yellow, brownish in spots, often chinky separated crosswise, smooth to wrinkled. Lower side smooth with sparse rhizines. Apothecia adnate to slightly pedicellate; margin entire to lobulate; disc concave, to 8 mm broad, bright chestnut brown, epruinose. On moss, humus, and rocks, Alaska and northern Canada. A. separata

Elix, J. 1993. Genera of Parmeliaceae. Thomson, J. W. 1984. American Arctic Lichens. I. The Macrolichens.