

Key to the Genera of Grey & Whitish Foliose Lichens of Alberta v. 2025

Encompasses 73 species across 12 genera.

Currently excludes rare genera *Glypholecia* and *Gypsoplaca* and squamulose to areolate species in *Buellia*, *Fuscopannaria*, *Hypocenomyce*, *Pannaria* and *Parmeliella*.

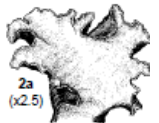
If you are using Goward et al.'s 1994 keys:

Alberta species that are missing: *Anaptychia elbursiana*; *Heterodermia galactophylla*, *H. japonica*, *Imshaugia placorodia*, *Phaeophyscia decolor*, *P. pusilloides*, *Physconia enteroxantha*, *P. isidiigera*, *P. grumosa*, *P. labrata*, *Physcia subtilis*.

Species nomenclatural changes: *Anaptychia crinalis* (here) equivalent to *A. setifera* in Goward; *Physcia alnophila* listed as a variety under *aiolia*; *Punctelia caseana* (here) equivalent to *P. subrudecta* in Goward.

KEY TO THE GREY AND WHITE FOLIOSE LICHEN GENERA OF ALBERTA EXCLUDING RARE & PREDOMINANTLY SQUAMULOSE GENERA

- 1a. Lobes hollow tubes, lacking cilia or rhizines ***Hypogymnia & Brodoa*** →
- 1b. Lobes solid & flattened, typically with cilia or rhizines 2
- 2a. Lobes relatively large, > 5 mm wide 3
- 2b. Lobes relatively narrow, 0.5 mm to 3 mm wide 6
- 3a. Lobes loosely attached, lower surface smooth with patches of white and brown, rhizines lacking; margins with isidia & lobules ***Platismatia glauca*** →
- 3b. Lobes mostly adnate, rhizines present 4
- 4a. Lower cortex present 5
- 4b. Lower cortex absent, instead with felty veins, interstices, and rhizines ***Peltigera***
- 5a. Lower surface pale to brownish, with short, pale rhizines; soralia marginal ***Punctelia caseana***
- 5b. Lower surface black with black rhizines; upper cortex with hammered appearance and web of pseudocyphellae ***Parmelia*** →
- 6a. Upper cortex with combed or flowing appearance, loosely adnate, often ciliate, rhizines/cilia may be squarrose to thyriform [branched 3x]; upper cortex **K+ yellow** ***Heterodermia & Anaptychia***
- 6b. Upper cortex with smooth, matte to shiny or hammered appearance, K- or **K+ yellow** 7
- 7a. White, shiny upper cortex; pycnidia common, superficial or immersed; apothecia with brown hymenium, may be isidiate, never sorediate; upper cortex **K+ strong yellow** (thamnolic acid) ***Imshaugia***
- 7b. Not as above, pycnidia never superficial or exerted, upper cortex grey to blue-grey 8
- 8a. Rhizines dense & black, typically squarrose [bottlebrush] or forked 9
- 8b. Rhizines simple or absent and then ciliate 10















- 9a. Upper surface pruinose; lower cortex blackened at least centrally, rhizines squarrose, abundant **Physconia** →
- 9b. Upper cortex hammered with netlike pattern of pseudocyphellae, lower cortex typically blackened throughout; rhizines simple, forked or squarrose **Parmelia**
- 10a. Upper cortex with circular laminal soralia, typically shiny; medulla **UV+ blue-white** (divaricatic acid) **Parmeliopsis**
- 10b. Upper cortex typically dull, often macule; medulla UV- 11
- 11a. Lower cortex pale, rhizines sparse, upper cortex **K+ yellow** (atranorin) **Physcia**
- 11b. Lower cortex pale to darkening centrally, rhizines variable (typically bristling around lobes, black with white tips; apothecial rim often ciliate); upper cortex K- **Phaeophyscia**



Summary of Physciaceae Genera Traits

	Upper cortex colour	Lower cortex colour	Rhizines	Cilia	Usually pruinose/maculate?	Cortex chemistry	Avg lobe width mm
Anaptychia	green-grey to olive brown, longitudinally striate (prosoplectenchymatous)	pale, ecorticate usually	simple to squarrose	yes	may be pruinose	all -	0.2-1 (2)
Heterodermia	white to pale grey, longitudinally striate (prosoplectenchymatous)	white or pigmented ecorticate in some species	simple to squarrose	some spp	neither	K+Y (atranorin)	0.5 - 2
Phaeophyscia	olive-brown to grey	black (occ.pale)	simple, often white-tipped	some spp	occasionally maculate	all -	0.2-1.5
Physcia	green-grey to white	white to pale brown	simple to sparsely branched	1 spp	may be either	K+Y (atranorin)	0.5 - 2
Physciella Not treated here, not sure present in AB	green-grey	white	simple	yes	usually neither	all -	0.3-2
Physconia	green-grey to brown	black (occ. pale near lobe tips)	squarrose	no	often pruinose	all -	0.5 - 3

Pictorial Guide to the Grey & Whitish Foliose Genera, with Example Species

		
<i>Anaptychia crinalis</i> Terricolous, rarely on wood, erect and often inrolled	<i>Heterodermia galactophylla</i> Epiphytic, upper cortex appearing 'bombed', sorediate	<i>Hypogymnia physodes</i> Tubes inflated, on trees and downed wood, sorediate and/or apotheciate, lower cortex black
		
<i>Imshaugia aleurites</i> Epiphytic, upper cortex crepey, isidiate or apotheciate, K+ deep yellow	<i>Parmelia sulcata</i> Upper cortex appears 'hammered', lower cortex black, lobes angular	<i>Parmeliopsis hyperopta</i> Narrow lobed, tightly appressed, sorediate
		
<i>Peltigera elisabethae</i> Large lobed, apothecia at the tip of erect lobes, no lower cortex, with veins and interstices	<i>Phaeophyscia constipata</i> Appressed, sorediate or apotheciate small lobed, on wood and trees, rarely on soil or rocks	<i>Physcia aipolia</i> Narrow lobed, lower cortex pale, often maculate, upper cortex K+ yellow
		
<i>Physconia labrata</i> Squarrose rhizines, often pruinose, epiphytic and terricolous, more rarely saxicolous	<i>Platismatia glauca</i> Ascending large lobes, patchy marginal isidia and soredia, lower cortex black and patchy	<i>Punctelia caseana</i> Large-lobed, sorediate, punctiform pseudocyphellae, brush-cut like rhizines