

Key to the Genera of Brown Foliose Lichens of Alberta v. 2025

Encompasses 99 species across 13 genera.

Brown is one of those variable colors – brownish specimens that are wet can appear green, and many species not normally browned can become melanotic with increased sun exposure. For that reason, you should use a general genus key like Goward's (1994) Key D: Stratified foliose lichen genera the first time you work through an unknown specimen. Here I've provided a short key to help with some of the most common brown species in Alberta but it does not include squamulose genera *Endocarpon*, *Massalongia*, *Myriospora*, *Parmeliella*, *Placidium*, *Protopannaria*, *Psora*, *Psoroma*, *Romjularia*.

PARTIAL KEY to the Brown Foliose Species of Alberta - only specimens with a uniformly brown upper cortex will key out here. Squamulose genera are excluded.

- 1a. Fruticose or appearing fruticose, the latter flattened with ascending lobes.....2
1b. Clearly foliose, often with tomentum or rhizines on the lower cortex, or lacking a lower cortex 3

- 2a. Typically soil-dwelling, lobes to 10 cm long ***Cetraria*** →
2b. Typically tree-dwelling, lobes to 3 cm long but mostly smaller, often ruffled and ascending
..... ***Tuckermannopsis* & *Tuckermanella***



- 3a. Lobes attached to the substrate throughout the thallus, substrate various4
3b. Lobes attached to the substrate via a central holdfast, always on rock ***Umbilicaria* & *Dermatocarpon*, see *Umbilicaria* Key**→



- 4a. Lobes dark reddish to greenish brown, often shiny, narrow (to 0.5 cm), typically appressed throughout but edges may be ascending, lower cortex and rhizines similar to upper cortex in texture but may be paler or darker, rhizines simple; on rocks and trees..... ***Melanelia* grp, Including *Cetrariella*, *Melanelia*, *Melanelixia*, *Melanohalea***
4b. Lobes not as above5

- 5b. Lacking a lower cortex, most species with veins and rhizines below ***Peltigera*** →
5a. Lower cortex present, may be smooth, with short dense tomentum or distinct rhizines6



- 6a. a. Lacking rhizines, lower surface smooth OR with short dense tomentum like fleece, apothecia if present on lower surface of lobe edges..... ***Nephroma*** →
6b. Rhizines present, apothecia is present on the top of the lobe in lecanorine, button-like apothecia (with a thalline rim colored like the upper cortex)7



- 7a. Upper cortex typically pruinose around margins, lower cortex dark black to brown, rhizines dense, black & 'bottle-brush' squarrose..... ***Physconia*** →
7b. Upper cortex typically lacking pruina and if present, patchy, not around margins, lower cortex pale to darkening centrally, rhizines variable (typically bristling around lobes, black with white tips; apothecial rim often ciliate)..... ***Phaeophyscia***



Pictorial Guide to the Brown Foliose Genera, with Example Species



Cetraria ericetorum

Terricolous, rarely on wood, erect and often inrolled



Cetrariella commixta

Saxicolous, appressed, apotheciate



Melanelia tominii

Saxicolous, narrow appressed lobes



Melanelixia albertana

Epiphytic, sorediate, C+ pink



Melanohalea exasperatula

Epiphytic, isidiate or apotheciate



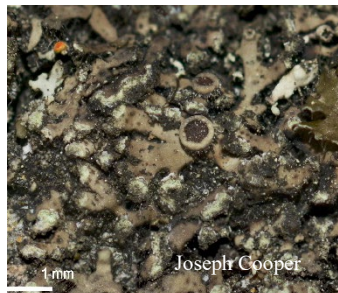
Nephroma resupinatum

Large lobed, cephalolichen, epiphytic, apothecia on bottom of lobe



Peltigera rufescens

Large lobed, cyanolichen, apothecia on tips of erect lobes, apothecia shaped like a fingernail or saddle



Phaeophyscia orbicularis

Appressed, sorediate or apotheciate small lobed, on wood and trees



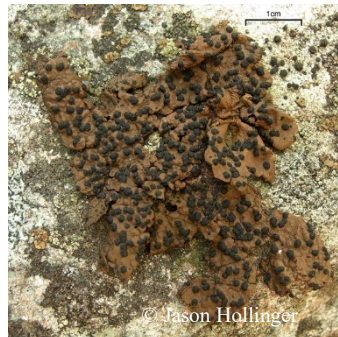
Physconia muscigena

Squarrose rhizines, often pruinose, epiphytic and terricolous, more rarely saxicolous



Tuckermannopsis americana

Ascending apotheciate lichens, epiphytic, often with cilia and/or pycnidia



Umbilicaria hyperborea

Attached with a central holdfast, saxicolous