

6 Species recorded or high potential to be recorded in Alberta [May 2014 ACIMS list used; March 2014 NA list used]:

- americana** (Sprengel) Hale Syn.: *Cetraria halei*, *C. ciliaris* var. *halei* (ACIMS S5)
- chlorophylla** (Willd.) Hale Syn.: *Cetraria chlorophylla*, *C. scutata* auct. non (Wulfen) Poetsch (ACIMS S4)
- orbata** (Nyl.) M. J. Lai Syn.: *Cetraria orbata* (ACIMS S2 ?)
- platyphylla** (Tuck.) Hale Syn.: *Cetraria platyphylla* Placement uncertain (Thell et al. 2009) (ACIMS S3S4)
- sepincola** (Ehrh.) Hale Syn.: *Cetraria sepincola*, *C. scutata* (Wulfen) Poetsch non auct. Placement uncertain (Thell et al. 2009) (ACIMS S4)
- subalpina** (Imshaug) Kärnefelt Syn.: *Cetraria subalpina*, *C. arborialis* Placement uncertain (Thell et al. 2009) (ACIMS S3)

There are are brown foliose species, often wrinkled and bearing pycnidia, apothecia, tubercles, cilia, or sparse rhizines (or some combination of the above). All are PD-, but UV, C and KC tests are helpful. Usually grows on trees, and are more ascending in growth habit than *Melanelixia* or *Melanohalea*. Spores are globose in *Tuckermannopsis*, ellipsoid to ovoid (6-9.5×4-6.5 µm [NASH04]) in *Tuckermanella*. Pycnidia are immersed to weakly emergent (broader than tall) in *Tuckermanella* and strongly emergent (height ≥width) in *Tuckermannopsis*.

DICHOTOMOUS KEY –*Tuckermannopsis* including *Tuckermanella*

Modification of Brodo et al. 2001 and Goward et al. 1994

- 1a. Soralia along lobe margins..... ***Tuckermannopsis chlorophylla***
- 1b. Soralia absent..... **2**
- 2a. Lobes long and strap-shaped, flat; dichotomously branched, forming shrubby clumps; linear-elongate pseudocyphellae sometimes present along the margins; differs from *Cetraria* species as follows: pseudocyphellae sparse, rarely conspicuous, and when present, restricted to margins [vs. abundant and conspicuous in *Cetraria*]; lobes flat [vs. channelled in *Cetraria*]; grows mainly on trigs and branches of shrubs in the subalpine, rarely on the ground among mosses [vs. exclusively on the ground in *Cetraria*]..... ***Tuckermannopsis subalpina***
- 2b. Lobes rounded or somewhat elongate, flat to crinkled and crisped; branching usually irregular; pseudocyphellae present or absent, never linear-elongate **3**
- 3a. Lobes flat and small; thalli erect; lobe margins either lacking cilia or cilia very short; red-brown or chocolate brown..... ***Tuckermannopsis sepincola***
[Thallus small, generally under 1cm across in AB; red-brown to yellow-brown and shiny, at least when dry, becoming brown to olivaceous brown/green when wet; pseudocyphellae sparse; apothecia on or close to the lobe margins, often dominating thallus; underside of thallus wrinkled, pale-brown, with sparse rhizines; all chemical tests - [vs. smooth, dark brown to black with abundant black rhizines, PDR in *Melanelia septentrionalis*]
- 3b. Lobes undulating or crisped at the margins; ciliate; olive brown to black brown..... **4**
- 4a. Lobes 5-10mm across; warty tubercles and/or lobules frequent on the lobe surface and margins; pseudocyphellae abundant and conspicuous, especially on tubercles; medulla usually orange or yellow in spots, especially in apothecial margin; cilia absent. ***Tuckermannopsis platyphylla***
- 4b. Warty tubercles absent; pseudocyphellae absent; medulla white throughout..... **5**
- 5a. Medulla UV+ blue white; lobules absent; cilia frequent and conspicuous; common and abundant in AB
..... ***Tuckermannopsis americana***
- 5b. Medulla UV-; lobules often present on lobe margins; variable..... ***Tuckermannopsis orbata***