

## ALECTORIA Ach.

4 Species recorded in Alberta

- imshaugii** Brodo & D. Hawksw. (ACIMS, RAM)
- ochroleuca** (Hoffm.) A. Massal. (ACIMS, RAM)
- sarmentosa** (Ach.) Ach. (ACIMS, RAM)
- vexillifera** (Nyl.) Stizenb. (ACIMS, RAM)

### DICHOTOMOUS KEY – *Alectoria*, including *Gowardia* and similar *Ramalina* & *Bryoria*

Based on Goward 1999 *Alectoria* Key, with updated taxonomy (McMullin *et al.* 2016). Chemistry is important in this group. *Gowardia* was split from *Alectoria* based on chemistry, and supported by molecular data (Halonen *et al.* 2010).

- 1a.** Branch tips pale green (check extreme tips), at least in part bearing minute fiddlehead-like “hooks”, these frequently minutely soresiate (check under hand lens); pseudocyphellae generally inconspicuous ..... ***Ramalina thrausta***
- 1b.** Branch tips pale or dark, not at all hooked, lacking soresia and granules; pseudocyphellae generally conspicuous; substrate various ..... 2
  - 2a.** Thallus containing usnic acid: pale greenish, at least in part; cortex KC+ yellow (usnic acid), PD-, K-, or occasionally in part K+ red; pseudocyphellae abundant, generally conspicuous ..... 3
    - 3a.** Pseudocyphellae bearing distinct isidia &/or isidia-like spinules; tree dwelling; main branches conspicuously and irregularly flattened in cross-section; Waterton Lakes National Park, Alberta ..... ***A. imshaugii***
    - 3b.** Pseudocyphellae not at all spinulose; tree- or ground-dwelling ..... 4
      - 4a.** Tree-dwelling; thallus distinctly yellowish green, or at least usually not grayish green; mainly foothills and mountains but occasional in the boreal; occasional ..... ***A. sarmentosa***
      - 4b.** Ground-dwelling ..... 5
        - 5a.** Main branches distinctly flattened/strap-shaped in cross-section, usually to more than 2 mm wide; thallus prostrate; rare ..... ***A. vexillifera***
        - 5b.** Main branches more or less circular in cross-section, usually to less than 2 mm wide; thallus erect to prostrate ..... 6
          - 6a.** Thallus erect to rarely prostrate; upper portion of branches often distinctly blackened; medulla CK+ golden yellow (diffractaic acid present); alpine, occasional ..... ***A. ochroleuca***
          - 6b.** Thallus prostrate; upper portion of branches not blackened (except blackened at extreme branch tips: check under hand lens); medulla CK- (diffractaic acid absent); exposed outcrops at all elevations ..... rare ground-dwelling form of ***A. sarmentosa***
  - 2b.** Thallus lacking usnic acid: pale yellowish or greyish (at least in part), but never greenish; cortex either KC+ pink/red or PD+ yellow or orange (alectorialic or barbatolic acids present, or both) ..... 7
    - 7a.** Epiphytic; cortex PD+Y ..... 8
      - 8a.** Branches lacking spinules, occasional across the mountains, foothills and boreal; colour varying with exposure, typically pendant ..... ***Bryoria pseudofuscescens* var. *pikiei***  
(synonymous with ***B. capillaris*** in North America)
      - 8b.** Branches with spiny perpendicular branches, tufted, soresiate, rare in the foothills and boreal ..... ***Bryoria nadvornikiana***
    - 7b.** Terricolous; lacking soresia; cortex KC+ Pink to R; thallus pale at base, often blackened in part elsewhere; main branches bearing distinct pseudocyphellae, these plane to raised, often rather broad; soresia absent; branch tips mostly weakly reflexed; on the ground; alpine ..... ***Gowardia nigricans***