

## **Physcia s.l.**

The taxa treated here are among the more difficult foliose lichens to identify; many problems remain among the N. American species.

**1. Thallus at least in center subcrustose, very adpressed and difficult to detach from substrate; lacking rhizines.** [Note: various lobate crustose members of the Physciaceae, lacking a lower cortex and not at all removable intact, will also key here]. ..... 2

**1. Thallus ± distinctly foliose, closely to loosely adpressed, but usually relatively easily detached intact from substrate using a knife; with rhizines (sometimes very sparse and inconspicuous).** [Note: Anaptychia and Heterodermia will also key here, as will sterile specimens of Pyxine]. ..... 3

**2. Upper surface ± brown (grayish to greenish); upper cortex K, without atranorin.** Lobes 0.20.5 mm wide. Lower cortex prosoplectenchymatous (lumina elongated, ca. 2 µm wide), pale. [Note: "Lecanora" demissa also keys out here.] .....  
Hyperphyscia (see separate document)

**2. Upper surface ± gray (to whitish), K+ yellow, with atranorin.** Lobes flattened, marginally confluent. .... Dirinaria (see separate document)

**3. Upper surface of thallus at least partly (especially lobe tips) strongly pruinose, brown or green under the pruina; cortex K (without atranorin). Rhizines often densely squarrose (with numerous perpendicular side branches, like a bottle brush), but sometimes (P. grisea) simple. Spores Physconiatype.** Lower cortex prosoplectenchymatous, black and distinct, or whitish and indistinct. .... Physconia

**3. Upper surface of thallus epruinose to weakly pruinose, or if strongly pruinose, then cortex K+ yellow (atranorin). Rhizines not squarrose. Spores (usually?) Physciatype or Pachysporariatype.** In my opinion the distinctions among the following 3 genera are dubious, and still leave "Physcia s. str." heterogeneous. However, the divisions are usually convenient for practical purposes. .... 4

**4. Upper surface ± gray (whitish to brownish or bluish); cortex K+ yellow (atranorin).** Lower cortex pseudoparenchymatous or prosoplectenchymatous. .... Physcia s. str.

**4. Upper surface ± brown (grayish to greenish or blackish), or sometimes whitish to gray but cortex always K (without**

atranorin). . . . . 5

5. Lower cortex pseudoparenchymatous (lumina rounded, ca. 37  $\mu$ m wide), brown to black, or if pale then thallus loosely attached and often  $\pm$  shrubby; lobes (0.05)0.21.5 mm wide, mostly readily detached from substratum. Upper surface usually rather dark or deeply pigmented. Rhizines dark or pale, sometimes very abundant. Sometimes with medullary substances. . . . . Phaeophyscia  
5. Lower cortex paraplectenchymatous, pale. Rhizines sparse, pale. Upper surface often pale, whitish to gray. No substances. . . . . Physciella

## LITERATURE

\* = consulted in making this key

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