

## HYPOGYMNINGIA

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*Hypogymnia* (Nyl.) Nyl., *Lichen. Env. Paris* 39 (1896); from the Greek *hypo* (below) and *gymno* (naked), in reference to the erhizinate lower surfaces of the lobes.

*Parmelia* subg. *Hypogymnia* Nyl., *Flora* 64: 537 (1881).

Type: *H. physodes* (L.) Nyl.

Thallus foliose, lobate, spreading, corticate on both surfaces, pale grey to black-brown. Lobes inflated, ±solid in some species, with or without soredia, lacking isidia; pseudocyphellae and perforations on upper surface. Medulla lax, cobwebby, white. Lower surface wrinkled, thin, often fissured or perforate, attached to substratum by adhesive discs or rarely by whole lower cortex, black. Phycobiont *Trebouxia*. Ascomata apothecial, lecanorine, sessile or subpedicellate; disc concave to flat, rarely perforate, without pruina, brown to black. Ascospores 8 per ascus, simple, ellipsoidal, hyaline. Conidiomata pycnidial, common in fertile species, minute, punctiform, immersed in upper surface, black. Conidia cylindrical, straight.

A genus of c. 45 species, widely distributed in both hemispheres. Twelve species occur in Australia, growing on bark, twigs, dead wood, grasses, rocks and soil in moist, cool to cold areas, mostly subalpine.

G.Bitter, Zur morphologie und systematik von *Parmelia*, untergattung *Hypogymnia*, *Hedwigia* 40: 171–274 (1901); H.Krog, The macrolichens of Alaska, *Norsk Polarinst. Skr.* 144: 1–179 (1968); R.B.Filson, Studies in Australian lichens 1, *Victorian Naturalist* 87: 324–327 (1970); K.E.Ohlsson, New and interesting macrolichens in British Columbia, *Bryologist* 76: 366–387 (1973); J.A.Elix, A taxonomic revision of the lichen genus *Hypogymnia* in Australasia, *Brunonia* 2: 175–245 (1980); J.A.Elix & G.A.Jenkins, New species and new records of *Hypogymnia* (lichenized Ascomycotina), *Mycotaxon* 35: 469–476 (1989).

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|----|---|--------------------------|
| 1  | Thallus sorediate   |                          |
| 2  | Medulla mostly hollow   | <b>H. subphysodes</b>    |
| 2: | Medulla mostly solid  | <b>H. pulverata</b>      |
| 1: | Thallus esorediate  |                          |
| 3  | Medulla hollow  |                          |
| 4  | Lobes contiguous throughout, with extensive lateral contacts                                      |                          |
| 5  | Thallus on rocks; upper cortex brown to blackened in part; medulla P± red                         | <b>H. kosciuskoensis</b> |
| 5: | Thallus on bark; upper cortex grey; medulla P-  |                          |
| 6  | Lobes 3–10 mm wide; apothecia with swollen base and involute thalline exciple at least when young | <b>H. pulchrilobata</b>  |
| 6: | Lobes 1–3.5 mm wide; apothecia lacking swollen base and involute thalline exciple                 | <b>H. turgidula</b>      |

- 4: Marginal lobes deeply divided or elongated, without extensive lateral contacts
- 7 Central lobes contiguous to subcontiguous
- 8 Apothecia basally swollen; thallus lobes 2–5 mm wide
- 9 Lobes 1–3 mm wide; medulla P-
- 9: Lobes 3–6 mm wide; medulla P+ red
- 8: Apothecia not basally swollen; thallus lobes 1–4.5 mm wide
- 10 Medulla adjacent to cavity completely blackened
- 10: Medulla adjacent to cavity white, or discoloured below
- 7: Central lobes neither contiguous nor subcontiguous
- 11 Thallus cartilaginous; medullary layer thick or solid in part; upper cortex grey
- 11: Thallus fragile; medullary layer thin; upper cortex commonly variegated by black lines, bands or patches
- 3: Medulla mostly solid
- 12 Lobes short and irregularly divided, mainly contiguous, with extensive lateral contacts
- 12: Lobes elongated in part, dichotomously divided, without extensive lateral contacts
- 13 Thallus on bark or wood; lobes flattened
- 13: Thallus on rocks; lobes terete
- H. australica**
- H. enteromorphoides**
- H. tasmanica**
- H. turgidula**
- H. tubularis**
- H. lugubris**
- H. billardieri**
- H. mundata**
- H. tubularis**