

ROCELLINASTRACEAE

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Roccellinastreae Hafellner, *Beih. Nova Hedwigia* 79: 332 (1984).

Type: *Roccellinastrum* Follman *emend.* Henssen & Vobis

Thallus byssoid, spongy, typically forming distinct lobes; mycobiont hyphae thick-walled. Photobiont a unicellular green alga. Apothecia pale, sessile, immarginate, with a reduced proper excipulum, markedly convex. Asci of the *Micarea*-type: narrowly clavate, 8-spored, surrounded by an amyloid gel, with a non-amyloid wall, usually a small ocular chamber, and with a prominent amyloid tholus which is pierced by a narrow paler-staining *masse axiale*, often with a darker staining ring structure. Paraphyses branched and anastomosing, with apices only slightly thickened. Ascospores hyaline, globose, ellipsoidal or bacilliform, simple or transversely septate, non-halonate. Pycnidia globose, minute, unilocular; wall unpigmented, with the outermost cells tuberculate. Conidiogenous cells ampuliform; conidia bacilliform to ellipsoidal.

This small, monotypic family is found in Tasmania, New Zealand and southern South America. It has some similarities to *Micarea* with respect to the structure of the ascus and apothecium, and it was tentatively included in the Micareaceae by Poelt (1973), whereas Henssen *et al.* (1982) placed it in the Lecideaceae *s. lat.* on the basis of its hyphal structure and thallus morphology. Hafellner (1984) affirmed the similarities to *Micarea*, but regarded the distinctive, byssoid thallus structure of *Roccellinastrum* worthy of recognition at family rank.

J.Hafellner, Studien in Richtung einer natürlicheren Gliederung der Sammelfamilien Lecanoraceae und Lecideaceae, *Beih. Nova Hedwigia* 79: 241–371 (1984).

ROCELLINASTRUM

Roccellinastrum Follman, *Nova Hedwigia* 14: 243 (1967), *emend.* Henssen & Vobis, in A.Henssen, G.Vobis & B.Renner, *Nordic J. Bot.* 2: 588 (1982); from the generic name *Roccellina* with the suffix *-astrum* (indicating incomplete resemblance), in reference to superficial similarities between the two genera.

Type: *R. spongoideum* Follman

Characters as for the family.

A genus of six species that occur as epiphytes on bark, bryophytes and leaves. Several species have remarkable and highly specialised habitats, such as cacti or the living leaves of conifers. Protocetraric acid has been recorded in all species, usually occurring together with other substances.

In Australia, *Roccellinastrum* is known only from Tasmania where it is represented by three species confined entirely to cool-temperate rainforest and associated scrub and woodland in the high rainfall, western parts of the island. The genus as a whole is rare, and the two endemic species are confined almost exclusively to the living leaves of endemic conifers.

G.Follman, Die Flechtenflora der nordchilenischen Nebelose Cerro Moreno, *Nova Hedwigia* 14: 215–281 (1967); J.Poelt, Classification, in *The Lichens* (V.Ahmadjian & M.E.Hale, eds) 599–632 (1973); A.Henssen, G.Vobis & B.Renner, New species of *Roccellinastrum* with an emendation of the genus, *Nordic J. Bot.* 2: 587–599 (1982); D.J.Galloway, *Fl. New Zealand Lichens* 516–517 (1985); G.Kantvilas, The genus *Roccellinastrum* in Tasmania, *Lichenologist* 22: 79–86 (1990).

- 1 Thallus yellowish (containing usnic acid); ascospores globose; occurring on the living leaves and leaf-bearing shoots of alpine conifers.....**R. flavescens**
- 1: Thallus white (lacking usnic acid); ascospores bacilliform; occurring on bark or on dead or living leaves2
- 2 Thallus composed of densely tangled tubular lobes, forming colonies to c. 80 mm diam., UV+ whitish (containing squamatic acid); ascospores simple (1:) **R. neglectum**
- 2: Thallus consisting of small irregular tufts < 10 mm diam., UV- (containing only protocetraric acid); ascospores septate **R. lagarostrobi**