

Dermatocarpon miniatum var. complicatum



SYNONYMS

Dermatocarpon weberi, *Lichen miniatus* var. *complicatum*, *Lichen weberi*

FAMILY

Verrucariaceae

AUTHORITY

Dermatocarpon miniatum var. *complicatum* (Lightf.) Th.Fr.

FLORA CATEGORY

Lichen – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Lichens - Foliose

CURRENT CONSERVATION STATUS

2018 | Data Deficient | Qualifiers: RR, SO, Sp

BRIEF DESCRIPTION

Characterised by the saxicolous habit; the thick, coriaceous, umbilicate, often caespitose–congested thallus (bright-green when wet, greyish brown when dry); and a negative reaction of the medulla to Melzer's Iodine reagent. Recorded in earlier accounts of New Zealand lichens as *Endocarpon fluviatile* and *Dermatocarpon fluviatile*, and as *Dermatocarpon weberi* (Galloway 1985a: 156).

DISTRIBUTION

North Island: Sine loco (Colenso). **South Island:** Nelson (Mt Cobb), Canterbury (Upper Godley Valley, Rangitata Gorge), Otago (Central Otago mountains, Poolburn Dam, Kakanui Mountains). **Stewart Island:** (Deceit Peaks). Cosmopolitan. Widely distributed in temperate to arctic habitats in the Northern Hemisphere. Not known from Australia.

HABITAT

On rocks near rivers or watercourses, often in drainage joints or channels on sloping rocks periodically inundated with water, mainly subalpine, 350–1580 m.

DETAILED DESCRIPTION

Thallus foliose, heteromerous, attached to substratum by a ±central umbilicus or holdfast; without rhizohyphae or rhizines. **Upper surface** ±finely scabrid to dull, grey to dark-brown, ±whitish-pruinose, mainly smooth but with slightly raised or papillate spots of ostioles of ascomata or conidiomata. **Lower surface** smooth, verrucose or veined, without tomentum. **Upper cortex** pseudoparenchymatous, gells ±globose. Lower cortex, of several rows of pachydermatous cells (of *Dermatocarpon*-type). **Photobiont** green, chlorococcoid. Medulla of thin, filamentous hyphae. Ascomata perithecia, laminal, completely immersed in thallus, uniloculate, globose. Involucrellum absent. **Exciple** hyaline. Hamathecium of periphyses. **Asci** bitunicate, 8-spored, cylindrical–clavate to saccate, thick-walled, Verrucaria-type; apical dome distinct in young asci and with an ocular chamber, but becoming reduced and ±absent in mature asci. **Ascospores** simple, globose to narrowly ellipsoidal or ovoid, colourless, smooth, without a perispore. Conidiomata pycnidia, immersed, similar in size to perithecia, wall colourless. **Conidia** bacilliform, simple, colourless. **Chemistry:** TLC–.

SIMILAR TAXA

Species of *Catapyrenium* and *Placidium* are distinguished from *Dermatocarpon* by having a lower surface with numerous rhizines or rhizohyphae.

SUBSTRATE

Saxicolous

Dermatocarpon, included in the family Verrucariaceae (Eriksson *et al.* 2004; Pennycook & Galloway 2004), is the sole foliose member of that family and is a genus of wide distribution, comprising c. 35 species (Glavich & Geiser 2004; Heiðmarsson & Breuss 2004) found mainly on damp rocks (acid and basic) by streams, rivers or lakes. A molecular study of *D. miniatum* (the generitype) and allied taxa is recorded in Heiðmarsson (2003). New Zealand taxa formerly included in *Dermatocarpon* (Galloway 1985a: 155–157) are now placed in *Catapyrenium* (q.v.). One species is recorded from New Zealand.

ATTRIBUTION

Fact sheet prepared by Melissa Hutchison (2 March 2023). Brief description, Distribution, Habitat, Features, and Similar taxa sections copied from Galloway (1985, 2007).

REFERENCES AND FURTHER READING

- Eriksson O.E.; Baral H.-O.; Currah R.S.; Hansen K.; Kurtzman C.P.; Rambold G. and Laessøe T. 2004: Outline of Ascomycota – 2004. *Myconet* 10: 1–99.
- Galloway D.J. 1985: *Flora of New Zealand: Lichens*. Wellington: PD Hasselberg, Government Printer. 662 pp.
- Galloway D.J. 2007: *Flora of New Zealand: Lichens, including lichen-forming and lichenicolous fungi*. 2nd edition. Lincoln, Manaaki Whenua Press. 2261 pp.
- Glavich D.A. and Geiser L.H. 2004: *Dermatocarpon meiophyllizum* Vainio in the US Pacific Northwest. *Evansia* 21: 137–140.
- Heiðmarsson S. 2003: Molecular study of *Dermatocarpon miniatum* (Verrucariales) and allied taxa. *Mycological Research* 107: 459–468.
- Pennycook S.R. and Galloway D.J. 2004: Checklist of New Zealand “Fungi”. In: McKenzie, E.H.C. (Ed.) Introduction to fungi of New Zealand. *Fungi of New Zealand/Ngā Harore o Aoteroa* Volume 1. *Fungal Diversity Research Series* 14: 401–488.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/dermatocarpon-miniatum-var-complicatum/>