

Teloschistes velifer

FAMILY

Teloschistaceae

AUTHORITY

Teloschistes velifer F.Wilson

FLORA CATEGORY

Lichen – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Lichens - Fruticose

CURRENT CONSERVATION STATUS

2018 | Not Threatened | Qualifiers: SO

BRIEF DESCRIPTION

Characterised by the corticolous, lignicolous, saxicolous habit; small, rather narrow dorsiventral lobes that are \pm horizontal-spreading at first with scattered cilia on the upper surface, but which soon become ascending and \pm erect-subfruticose, which become expanded into hooded, sail-like structures at their apices that usually lack cilia. Lobes are corticate on both upper and lower surfaces, except at the expanded apices, which are decorticate on the lower surface and there develop copious green-yellow soredia. *Teloschistes velifer* varies considerably in thallus size throughout its range, specimens from urban habitats with moderate to high levels of pollution being small, and eroding into swards of soredia. The presence of even poorly developed apical sail-like or hooded structures with ventral development of soredia is always characteristic of the species.

DISTRIBUTION

North Island: Northland (Poor Knights Islands), South Auckland (Rotorua, Waiotapu Valley), Wellington (Raetihi, Lower Hutt). **South Island:** Nelson (Cobb Dam, Lake Rotorua, Lake Rotoiti, Motupiko), Westland (Greymouth), Marlborough (Mt Stokes, d'Urville Island, Kenepuru Sound, Mt Stokes, upper Wairau Valley), Canterbury (Cheviot, Arthur's Pass, Hawdon River, Cass, Castle Hill, Lowry Peaks Range, Waipara, Cashmere Hills Christchurch, Rocky Peak Banks Peninsula, Alford Forest, Lake Tekapo, Godley River, Geraldine, White Horse Hill Mt Cook, Temple River Lake Ohau), Otago (Nevis Valley, Cromwell, Pisa Range, Old Man Range, Alexandra, Poolburn Reservoir, Rock & Pillar Range, Abbots Hill Dunedin, Maungatua, Tuapeka West, Blue Mts), Southland (Waihopai Scenic Reserve Invercargill, Tiwai Point, Waituna Lagoon, Borland Lodge). **Stewart Island:** (Oban, Table Hill). Also known from Australia where it is recorded from New South Wales, Australian Capital Territory, Victoria, South Australia and Tasmania and from southern Chile.



Castle Hill. Photographer: Melissa Hutchison, Date taken: 10/11/2016, Licence: CC BY-NC.



Rakaia Island. Photographer: Melissa Hutchison, Date taken: 07/09/2019, Licence: CC BY-NC.

HABITAT

Widespread, on living bark of both introduced and native trees and shrubs, often on dust-impregnated branches, on dead twigs and decorticated wood, rocks, gravestones, concrete posts, and occasionally on old iron railings and gates, in drier eastern parts of the South Island; from s.l. (occasional on maritime rocks) to 1000 m. It is particularly common on wayside trees, hedges, gates and old fenceposts in rural areas, and on planted trees in parks and gardens in urban habitats where it is an early coloniser, sometimes forming extensive swards of young thalli. It appears to be able to withstand moderate levels of atmospheric pollution in both urban and industrial areas. Rarely it is encountered in subalpine sites above treeline. It is known from a wide variety of introduced shrubs and trees, as well as from *Coprosma propinqua*, *Dacrycarpus dacrydioides*, *Discaria toumatou*, *Hebe* sp., *Kunzea* spp. [*ericoides*], *Leptospermum scoparium*, *Melicactus alpinus*, *Muehlenbeckia complexa* and *Fuscospora cliffortioides* [*Nothofagus solandri* var. *cliffortioides*].

DETAILED DESCRIPTION

Thallus ascending, erect, subfruticose, 3-10 mm tall, often in pulvinate clumps, to 3 cm diam., corticolous or saxicolous. **Lobes** stellate-radiate at first, ± linear, ascending at apices, flat 0.2-0.8 mm wide, di- or trichotomously divided, white and smooth beneath with yellow marginal fibrils 0.5-1.5 mm long, mature lobes orange-red, erect, weakly bullate, hollow, sail-like, 2-5(-8) mm long with ends expanded to 2-3 mm wide, hooded and open-ended, exposing algal layer as greenish soledia with few or no basal fibrils. **Apothecia** 1-3 mm diam., at first broadly sessile on upper surface with prominent, inflexed thalline margin, finally appearing terminal, on 1-2 mm tall striate pedicels and then convex with excluded margin, disc orange-red, matt. **Ascospores** ellipsoid, 10-16 × 6-8 µm.

Chemistry: Chemosyndrome A+5; containing in addition to the anthraquinones parietin (major), emodin, parietinic acid, fallacinal, teloschistin and erythroglaucon, also large amounts of the unidentified compound Tel 50.

SIMILAR TAXA

Juvenile thalli are similar in gross morphology to thalli of *T. spinosus* but lack the marginal soledia of that species; in *T. velifer* soledia always develop on the ventral surface in well-defined, decorticate areas which are characteristically deeply excavate, forming a conspicuous swelling on the dorsal surface. Juvenile specimens might be mistaken for *T. sieberianus* (q.v.), but this species usually has hyaline tips to the cilia, larger pycnidia, and is without soledia. Thallus colour varies from pale to dark yellow to orange-yellow to orange-red, depending on the light regime of the habitat. Apothecia and pycnidia are rare and conidia are bifusiform.

SUBSTRATE

Corticolous, saxicolous, artificial substrates (concrete posts, gravestones, gates, fenceposts, iron railings)

ATTRIBUTION

Fact sheet prepared by Melissa Hutchison (30 November 2021). Brief description, Distribution, Habitat, Features, and Similar taxa sections copied from Galloway (1985, 2007).

REFERENCES AND FURTHER READING

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.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/teloschistes-velifer/>