

Stirtoniella kelica

BIOSTATUS

Native

CURRENT CONSERVATION STATUS

2018 | Not Threatened | Qualifiers: SO

CATEGORY

Lichen

STRUCTURAL CLASS

Lichens - Crustose

LICHEN SUBSTRATE

Corticolous (bark, wood)

DETAILED DESCRIPTION

Thallus spreading in irregular patches (1–)2–5(–8) cm diam., sometimes delimited by a thin to thick, black, sinuous, prothalline line. **Upper surface** pale greenish grey to grey-white, thick, continuous to minutely areolate, areolae angular, 0.1–1 mm diam., separated by very narrow cracks, smooth or minutely verrucose-papillate, matt or shining. **Apothecia** sessile, (0.1–) 0.5–2(–3) mm diam., round to irregular, solitary to clustered to somewhat conglomerate, large apothecia frequently fragmenting into smaller, contiguous parts, shallowly convex to ±flattened; disc smooth to irregularly wrinkled or pitted, mustard-yellow to ochre-yellow (becoming darker to somewhat reddish in K), convex, exciple becoming excluded from an early stage of development and therefore normally invisible. Exciple of *textura intricata* in longitudinal section, excipular hyphae reticulate but with a tendency to radiate orientation, with narrow lumina, pigment crystals covering and penetrating deeply between the hyphae, intercellular space otherwise filled with gelatinous matrix. Hypothecium hyaline or pale-brownish, 20–30 µm thick, of intricate, thick-walled, short-celled hyphae, in the uppermost part at the edge to the subhymenium with a layer of ±irregularly globose pigment crystals with slightly different colour than those of the epihymenium, interpenetrated by strands or clumps of microscopic, green algae. Hymenium hyaline, 60–80(–100) µm tall, covered by a layer (12.5–22 µm thick) of mainly bacillar pigment crystals, without inspersions of oil droplets, but with pigment crystals penetrating here and there down to the subhymenium. Interascal filaments relatively few in ascomata with a sporulating hymenium, with many ramifications and anastomoses. **Asci** *Bacidia*-type (i.e. with euamyloid tholus having a conical non-amyloid axial body), 8-spored. **Ascospores** hyaline, narrowly ellipsoidal, straight or slightly curved, 1-septate, without distinct perispore in LM, septum simple without any peculiar features, 15–18–22 × 4– 5.5 µm. Pycnidia widely scattered, immersed in minute, black warts. Conidia bacillar.

Chemistry: Thallus K–, C–, KC–, Pd–; apothecia K+ reddish to purple-red, C–, KC–; containing protocetraric acid (major) and subvirensic acid (tr.); apothecia K+ reddish or purplish red, C– KC–, Pd– or + orange; containing calycin (major or minor), pulvinic dilactone (major) and protocetraric acid (minor). Thallus containing depsidones (protocetraric and subvirensic acids) and apothecia with pulvinic acid derivatives.

SUBSTRATE DETAILS

Corticolous



Maninganiga Kauri Walk, Northland.
Photographer: Melissa Hutchison, Date taken:
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Paihia, Northland. Photographer: Melissa
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GENUS

Stirtoniella

FAMILY

Ramalinaceae

AUTHORITY

Stirtoniella kelica (Stirt.) D.J.Galloway, Hafellner & Elix

SYNONYMS

Biatorina stillata, Catillaria kelica, Lecidea kelica, Lecidea stillata, Patellaria stillata

TAXONOMIC NOTES

Stirtoniella is a monospecific genus included in the family Ramalinaceae, described for the species *Lecidea kelica*, a distinctive corticolous taxon having prominent mustard-yellow to ochre-yellow (K+ purple-red) biatorine apothecia, *Bacidia*-type asci and colourless, 1-septate ascospores without a distinct perispore. Formerly included in *Catillaria* s. lat., it occurs most commonly in northern coastal forest, with a disjunct, southern population around Cook Strait (from Kapiti Island to the northern West Coast and the Marlborough Sounds). It also occurs in Tasmania.

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

REFERENCES AND FURTHER READING

Galloway D.J. 2007: *Flora of New Zealand: Lichens, including lichen-forming and lichenicolous fungi*. 2nd edition. Lincoln, Manaaki Whenua Press. 2261 pp.

ATTRIBUTION

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MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/stirtoniella-kelica/>

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