

# Pertusaria southlandica

## FAMILY

Pertusariaceae

## AUTHORITY

*Pertusaria southlandica* A.Knight, Elix & A.W.Archer

## FLORA CATEGORY

Lichen – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Lichens - Crustose

## CURRENT CONSERVATION STATUS

2018 | Data Deficient

## BRIEF DESCRIPTION

Characterized by conspicuous, multi-ostiolate verrucae, asci with two rough-walled ascospores, and the presence of 2-chlorolichexanthone and conhyprotocetraric acid.

## DISTRIBUTION

**South Island:** Previously only known from the type locality at Boyd Creek, 20 km W of Te Anau Downs (Knight *et al.* 2011). Since then has been found in the Eyre Mountains (Marley Ford, pers. comm.).

## HABITAT

Found in association with other Pertusariaceae species including *Lepra psoromica*, *L. thamnolica*, *L. truncata* and *Varicellaria velata*.

The type specimen was found growing on *Fuscospora solandri*, the second collection was recorded on *Fuscospora cliffortioides*.

## DETAILED DESCRIPTION

**Thallus** corticolous, pale grey-white, finely rimose-cracked, rough and thickish in fertile areas and against adjacent crusts, thinning towards margins. **Surface** dull to slightly shiny, lacking pruina, isidia and soredia. Faint black **prothallus** sometimes present. **Apothecia** verruciform, flattened-hemispherical, numerous, crowded, 2–3 mm diam., concolorous with the thallus. **Thalline** margins thick, smooth and slightly glossy. **Ostioles** pale, conspicuous, 3–8 per verruca, slightly sunken. **Ascospores** ellipsoid, hyaline, 2 per ascus, rough-walled, 87–105 × 30–50 µm. **Chemistry:** cortex K–, KC–, C–, P+ yellow-orange, UV+ dull brick red; medulla UV+ bright white; containing conhyprotocetraric acid (major), 2-chlorolichexanthone (minor), hypoprotocetraric acid (minor) and protocetraric acid (trace).

## SIMILAR TAXA

It somewhat resembles the coastal Australian *Pertusaria thwaitesii*, which is also known from Sri Lanka and New Guinea, but that species has longer ascospores (110–160(–175) µm versus 87–105 µm) and black ostioles, and contains protocetraric acid. The New Zealand endemic *P. vallicola*, known from one location in Canterbury, is also similar to *P. southlandica*; both species have asci with two rough-walled ascospores and pale ostioles, but *P. vallicola* contains hypoprotocetraric acid as a major compound and has smaller verrucae (0.2–0.3 mm versus 2–3 mm diam.) and only one ostiole per verruca.



Corticolous on mountain beech, Eyre mountains Southland. Photographer: Marley Ford, Date taken: 09/06/2022, Licence: CC BY.



Corticolous on mountain beech, Eyre mountains Southland. Photographer: Marley Ford, Date taken: 09/06/2022, Licence: CC BY.

## SUBSTRATE

Corticolous

## ETYMOLOGY

**southlandica**: Derived from Southland, the district in the South Island of New Zealand where the species was first found.

## ATTRIBUTION

Fact sheet prepared by Marley Ford (9 October 2022). Brief description, Distribution, Habitat, and Features sections copied from Knight *et al.* (2011).

## REFERENCES AND FURTHER READING

Knight A., Elix J.A., and Archer A.W. 2011: A new species of *Pertusaria* lichenized Ascomycota, Pertusariaceae from New Zealand. *Australasian Lichenology* 69: 33-35.

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/pertusaria-southlandica/>