

# Xenolecia cataractarum

## FAMILY

Lecideaceae

## AUTHORITY

Xenolecia cataractarum Fryday

## FLORA CATEGORY

Lichen – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Lichens - Crustose

## CURRENT CONSERVATION STATUS

2018 | Data Deficient | Qualifiers: IE, OL

## DISTRIBUTION

**Campbell Island** (Mt Honey).

## HABITAT

The new species is known only from the type locality on Mt Honey, Campbell Island, New Zealand, where it is apparently quite frequent on siliceous rocks near a waterfall (Imshaug made four separate collections from there, along with several duplicates).

## DETAILED DESCRIPTION

**Thallus** creamy white, with a distinct, obscurely effigurate margin with a blue-black prothallus; **medulla** l-.

**Photobiont** chlorococcoid, arranged in loosely defined vertical bundles; cells globose to slightly ovoid, sometimes irregularly shaped and angular (presumably disrupted), 5–7(–9)  $\mu\text{m}$  across. **Apothecia** numerous, black, innate with a concave disc, 0.2–0.5mm diam.; proper margin not apparent but disc often surrounded by a blue-grey border, 0.05mm wide, that is formed by the thallus cortex overreaching the epihymenium. **Proper exciple** poorly developed, annular, 10–15  $\mu\text{m}$  wide, very dilute orangebrown, structure unclear but apparently little differentiated from the hymenium. **Hypothecium** dilute brown to dark brown, upper part composed of vertically arranged hyphae, lower part  $\pm$ cellular, extending into the thallus for up to 160  $\mu\text{m}$ . **Hymenium** c. 220–250  $\mu\text{m}$  tall; paraphyses slender (1  $\mu\text{m}$  wide), sparingly branched and anastomosing, not or only slightly swollen at the apex; epihymenium olivaceous (N+ red, K $\pm$  brown; probably *Cinereorufa*-green and *Arnoldiana*-brown). **Asci** cylindrical-clavate, 50–60  $\times$  15–18  $\mu\text{m}$ , outer wall l+ blue, immature asci initially with a distinct l+ blue cap, occasionally with a less distinct ring structure extending down into the tholus, mature asci *Porpidia*-type, similar to that of *X. spadicomma*; ascospores simple, hyaline, with a thin gelatinous sheath (halonate), broadly ellipsoid, (12–)14.84 $\pm$ 1.65(–18)  $\times$  (6–) 6.91 $\pm$ 1.02(–9)  $\mu\text{m}$ ; l/w ratio 1.67–3.00, mean = 2.20, (n = 16). **Conidiomata** pycnidia, black, immersed, abundant at the thallus edge when two thalli meet; conidia hyaline, filiform, 20–25  $\times$  1  $\mu\text{m}$  (n = 10).

**Chemistry:** K+ red, C–, KC–, PD+ yellow, UV+ dull white; norstictic acid by TLC.

## SIMILAR TAXA

Differs from *Xenolecia spadicomma* Hertel in having much smaller apothecia and ascospores, a greenish pigment in the epihymenium, a non-amyloid medulla and in the production of norstictic acid.

## SUBSTRATE

Saxicolous

## ETYMOLOGY

**cataractarum:** Named after the habitat of the only collection (Latin: 'cataractarum' = of waterfalls)



### **ATTRIBUTION**

Fact sheet prepared by Marley Ford (17 November 2022). Brief description, Distribution, Habitat, and Features sections copied from Fryday & Thus (2017).

### **REFERENCES AND FURTHER READING**

Fryday A.M. and Thus H. 2017: The genus *Xenolecia* (Lecideaceae s. lat., Lecanoromycetidae inc. sed.), including a second species in the genus from Campbell Island, New Zealand. *The Lichenologist*, 49(4): 365-372.

### **MORE INFORMATION**

<https://www.nzpcn.org.nz/flora/species/xenolecia-cataractarum/>