<u>"Scytinium polycarpum": New records of a Red-listed Lichen Species in Strathcona Pro-</u>vincial Park

It is always interesting to note that as Starthcona Provincial Park is about to celebrate its first 110 years, biologists are still finding previously unnoticed species in the park. In May of this this year hikes along the west side of Buttle Lake resulted in two separate observations of <u>Scytinium polycarpum</u>, formerly known as "Leptogonium polycarpum." The common name is "The Peacock Vinyl Lichen." INaturalist and the Consortium of North American Herbaria records indicate that these are the first two records of this lichen in Strathcona Park.¹



Figure 1: Two specimens of the red-listed "Scytinium polycarpum" on "Vahliella saubinetii" in Strathcona Provincial Park on the Marble Meadows trail. (Photo by Loys Maingon)

This is a "red-listed" species under COSEWIC as an (N1,N2) and under BC's classification as an (S1, S2). Like all members of the greater family "Collemataceae" it is a jellied cyanolichen, a nitrogen fixer, pigmented black by its Nostoc phytobiont. It gets its common name from being a rather showy little rosette, made up of sheets of translucent membranes which become

¹ https://lichenportal.org/cnalh/collections/list.php#; https://lichenportal.org/cnalh/collections/list.php#; https://www.inaturalist.org/taxa/532312-scytinium-polycarpum

slightly irridescent in the light. It varies in colour with temperature and humidity levels from bright green to black when wet to deep brown in a dessicated state, as in the photo above.

As all the members of the "jellied-lichens" it requires a high-precipitation habitat. It is therefore not surprising to note that in recent years it has been found around Vancouver Island by Randal Mindell, Andrew Simon and Trevor Goward, as **Figure 2** shows:

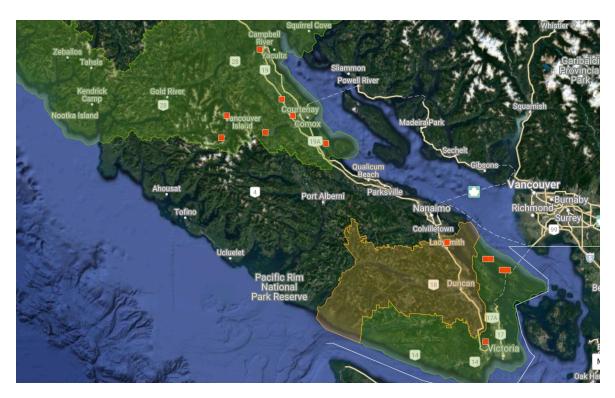


Figure 1: iNaturalist distributions of <u>Leptogonium polycarpum</u> on Vancouver Island since 2011.

For the most part these lichens are not visible, except to the expert eye. These are cryptic species that have survived thanks to their ability to blend into their environment and avoid detection. These are fragile species whose vulnerability lies largely in the uniqueness of the habitats that sustain them. These are habitats that easily destroyed because they are considered to be of little or no economic value. The survival of these red-listed species within the park is a product of the high gradient alpine and subalpine environments characteristic of the Buttle Lake area which are normally undisturbed by hikers.

It is of some concern that the specimens that have been found are on very popular trails, which until Covid-19 were moderately used, but which are now facing more intense conservation pressures from an exponentially growing number of hikers. Of particular concern are the "extreme sport" enthusiasts who make it a point to disregard trail boundaries and who increase cross-trail erosion and trample vegetation off-trail, with no regard for species conservation.

Given the presence of red-listed species measures will need to be taken by BC Parks and volunteer groups like the Strathcona Wilderness Institute to educate park users and re-enforce trail ethics and "Leave no Trace" codes.

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