



**Lichens of Concern and at Risk
in the Abbotsford Area**

Lichen Species of Concern in Our Area (1 of 3)

A **lichen** is a symbiotic (cooperative) partnership of two organisms, a **fungus** and an **alga**. The fungus gives the lichen its structure while the alga contains chlorophyll and can thus use photosynthesis to provide the nourishment. (*On the front page, a Pannaria rubiginosa*).

Because Lichens are better known to scientists than to the average person, the vocabulary used for their description is quite technical. Here is an explanation of some of the common terms:

Foliose - having a flat, thin body

Gemma - a bud or reproductive body

Hyphae - the mass of threads that make up the body of a fungus

Lobe - a curved or rounded projection

Medulla - the inner part of the plant structure

Perithecia - hollow fruiting bodies found in various higher fungi such as yeast

Photobiont - the algal component of a lichen that contains the chlorophyll

Thallus - the body, having no stem, roots and leaves

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Quilted stippleback (*Dermatocarpon intestiniforme*)



This small to medium size stratified foliose lichen is an unusually variable species. It is covered by “bark” above and below, and lacks tufted reproductive bodies. The lobes are loosely attached to the substrate. It is found over rock, but rarely over bare soil.

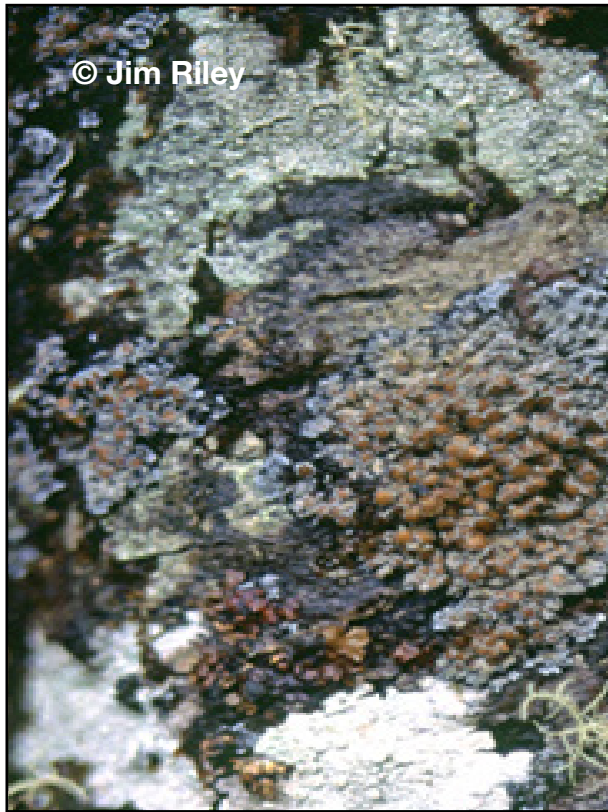
Noticable is the presence of many dot-like perithecia over the upper surface.

The entire thallus, averaging 1–3 cm across, is usually somewhat thick. The crowded lobes of the thallus can be more than 6 mm

across. The upper surface is greyish to dark olive brownish. The lower surface is pale brown or blackened. The medulla is white while the photobiont is green.

Lichen Species of Concern in Our Area (2 of 3)

Considerable gingerbread (*Pannaria rubiginosa*)



This foliose lichen is sometimes called Mouse lichen because of the miniature size of the lobes and its colour. It can be found growing over bark, rock, moss and soil.

The upper surface is pale tan to grayish blue or dark brownish. The lobe margins are often whiter and smooth or slightly roughened. The lower surfaces are pale and often resting on a dark body while the inner part is white. There are small gemmae on the surface of the thallus which are covered with hyphae. The parts that contains the algae are blue-green.

Seven of the 17 pannaria species are known to occur in BC.

Cryptic paw lichen (*Nephroma occultum*)

Cryptic paw is a rare foliose lichen that grows in various sizes on the surface of trees, logs, mossy rocks, mainly in old-growth forest. It is formed in thin paw-shaped layers like loose bark having a variety of shapes averaging from .5 to 2 cm in width.

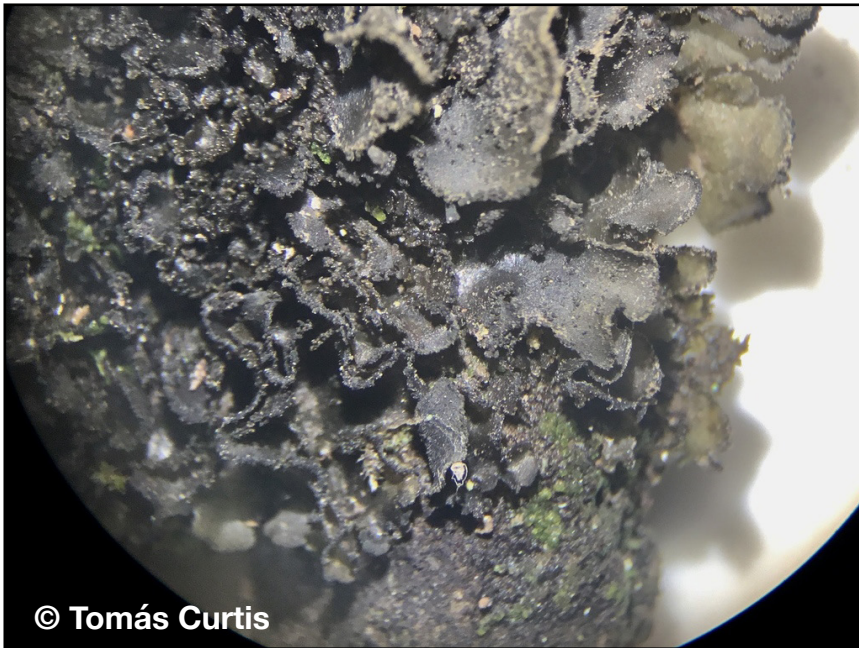
The upper surface can be greenish, grayish or brownish, dull or shiny. The lower surface pale to dark, sometimes covered in dense woolly hairs. Occasionally it will have a bumps or nodules. The insides, it may be either white or yellowish.



The spore-bearing part is brown and lies flat over the lower surface near the tips of the lobes.

Lichen Species of Concern in Our Area (3 of 3)

Flaking tarpaper (*Collema flaccidum*)



Collema flaccidum is a species of foliose lichen, one of the many Tarpaper Lichens. It can be found growing on bark, earth and damp mossy rock, in a variety of places. The thallus is loosely attached, deeply lobed and from 2.5 to 6 cm wide. It becomes somewhat jellylike when wet.

The surface of the thallus is a dark olive brownish or blackish colour. The lobes are somewhat erect, and varying in thickness and irregularly folded. It has no underlying body.

The photobiont is blue-green. The spore-bearing structures are scattered on the surface.

Midlife vinyl fungi (*Scytinium californicum*)

This foliose lichen is usually found on rocks among mosses but occasionally on soil or at the base of trees.

The thallus is small to medium in size, having a distinctly wrinkled upper surface, consisting of irregular lobes averaging less than 0.2 mm thick when moist. They are weakly wrinkled when dry.

The upper surface is brown to greenish-brown. The lower surface is either naked or bearing scattered tufts of hair at points of attachment, but never distinctly woolly.

